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Lars Bergström Quine and the a priori

Roughly speaking, a priori knowledge is knowledge that is independent of introspection and sensory experience. But is there any such knowledge? Many philosophers believe that W. V. Quine says or implies that there is not. For example, Laurence Bonjour claims that "Quine [...] rejects the very existence of *a priori* justification",¹ and Hartry Field says that according to Quine "there is no a priori knowledge at all, not even in logic and mathematics".² I shall argue, on the contrary, that there is indeed a priori justification and that this is quite consistent with Quine's philosophy.

How do we know that we know things a posteriori? Quine would say that we know this a posteriori; it is something that is supported by empirical science.³ It is justified by our ordinary standards of justification. So perhaps *all* knowledge is a posteriori. But, if so, how do we know this? Clearly, we cannot know a priori that we cannot know anything a priori. But *this* can perhaps be known a priori. If so, there is a priori knowledge.

1. EMPIRICISM BEFORE QUINE

Earlier empiricists thought that there is a priori knowledge, for example in logic and mathematics. But they held that we could only know a priori what is expressed by so-called analytic propositions – and that logical and mathematical propositions are analytic. A proposition is analytic, according to A. J. Ayer, "if it is true solely in virtue of the meaning of its constituent symbols".⁴

¹ Bonjour 2001, p. 627.

² Field 2005, p. 69.

³ Strictly speaking, Quine may prefer not to use words like "know" and "knowledge"; he says that the latter term "does not meet scientific and philosophical standards of coherence and precision", but it "retains its rough utility in the vernacular" (Quine 1987, p. 109). In what follows, I shall speak mainly of "a priori justification".

⁴ Ayer 1967, p. 16. Such propositions "cannot therefore be either confirmed or refuted by any fact of experience"; they have no "factual content"; they are not "truths about the world"; they "do not make any assertion about the empirical world" and they are "independent of the nature of the external world", see e.g. pp. 73, 84, and 87.

Ayer explicitly rejected John Stuart Mill's view that mathematical statements have empirical content, that they are empirical generalizations. Ayer writes:

In rejecting Mill's theory, we are obliged to be somewhat dogmatic. We can do no more than state the issue clearly and then trust that his contention will be seen [*sic!*] to be discrepant with the relevant logical facts.⁵

How is this to be understood? It appears that Ayer believes that we can know *a priori* that Mill is wrong; that this can be "seen" without any observation of empirical facts. But is this really an analytic proposition? Is Ayer's claim "true solely in virtue of the meaning of its constituent symbols"? Does it lack "factual content"? It seems not.

The "relevant logical facts" referred to by Mill include e.g. the fact that we cannot imagine any observations that might make us reject the proposition that $2 \times 5 = 10$ or the proposition that the sum of the three angles of a Euclidean triangle is 180 degrees.⁶ But even if these were "logical facts", it is hardly a *logical* fact that no conceivable observations would make us reject them.

2. QUINE ON ANALYTICITY

In any case, the earlier empiricist position, exemplified by Ayer, may still be fairly popular. It presupposes the distinction between analytic and synthetic sentences.⁷ As is well known, Quine has questioned this distinction, most famously in his paper "Two Dogmas of Empiricism" of 1950.⁸ But everyone has not yet accepted Quine's criticism. Perhaps a majority of contemporary philosophers has not been persuaded by it. Thus, according to Timothy Williamson, "Quine's arguments are generally found much less compelling than they once appeared".⁹

Quine's main argument against analyticity is that it has no clear *empirical* content. He admits that "if the verification theory [of meaning] can be accepted as an adequate account of statement synonymy, the notion of analyticity is saved

⁵ Ayer 1967, p. 75.

⁶ See Ayer 1967, pp. 75–76.

⁷ Sentences that are false in virtue of their meaning may also be called analytic – or analytically false – but in general "analytic" means "analytically true".

⁸ Quine 1953. This paper was first published in 1951. The 1953 version is slightly revised and further revisions were introduced in a 1961 version.

⁹ Williamson 2007, p. 50.

after all”.¹⁰ But the verification theory is ruled out by the Quine-Duhem thesis.¹¹ Most sentences do not have a determinate empirical content of their own. Hence, there is no objective criterion in terms of intersubjectively observable conditions for deciding whether or not a sentence is analytic – and the same is true of related notions like synonymy, meaning and necessity. The relevant “observable conditions” would have to do primarily with linguistic behavior.

This point is stressed in *Word and Object*. Quine notes that several of his critics have “argued that the standard of clarity that I demand for synonymy and analyticity is unreasonably high; yet I ask no more, after all, than a rough characterization in terms of dispositions to verbal behavior”.¹² The first three sentences of the preface to the book provide excellent motivation for this requirement:

Language is a social art. In acquiring it we have to depend entirely on intersubjectively available cues as to what to say and when. Hence there is no justification for collating linguistic meanings, unless in terms of men’s dispositions to respond overtly to socially observable stimulations.¹³

Clearly, if analyticity is problematic, so is the idea that a priori justification and a priori knowledge presuppose analyticity. Perhaps this is what has led some people to believe that Quine rejects the very existence of a priori justification.

3. RELATIVE ANALYTICITY

In an early paper, Quine said that “[a] statement is analytic if it can be got by putting one expression for another with the same meaning in a (logical principle, or) statement which is logically true”, and that sameness of meaning, or synonymy could be approximately defined as follows: “two expressions have the same meaning for x at t if substitution of the one for the other, in any statement believed by x at t , yields a statement believed by x at t ”.¹⁴ But he then raised several objections to this definition and in the end he abandoned it.

¹⁰ Quine 1953, p. 38.

¹¹ Quine 1953, pp. 37–42.

¹² Quine 1960, p. 207.

¹³ Quine 1960, p. ix.

¹⁴ Quine 2008, pp. 25 and 34, respectively. This paper, “On the Notion of an Analytic Statement”, was presented at the University of Pennsylvania in 1946. It was not published until after Quine’s death. – Notice, that the synonymy referred to here and elsewhere is *cognitive* synonymy, sameness of *cognitive* content.

The point I want to make here is that this early suggestion by Quine has a certain attractive feature, that is very seldom recognized in discussions of analyticity, namely that synonymy, and therefore also analyticity, is *relative* to persons and times. This is plausible in view of the fact that people may often interpret sentences differently and one and the same person may interpret sentences differently at different times. In a much later place, Quine defines synonymy for occasion sentences as follows:

Sameness of meaning of two occasion sentences [...] for a given speaker at a given stage of his development consists in his then having the disposition [...] to give the same verdict (assent, dissent, abstention) to both sentences on any and every occasion.¹⁵

Here, again, synonymy is relativized to persons and times. Similarly, in the 1946 paper, after being unable to save the first definition of synonymy, Quine suggests that it could be defined in terms of analyticity, as follows: "two expressions are the same in meaning if, when you put the one for another in a statement *s* to form a statement *s'*, the conditional 'if *s*, then *s'*' is analytic". And then we may get a criterion of analyticity, in turn, "on the basis of relative reluctances in the face of contrary evidence, to discard a statement as false".¹⁶ Analyticity would correspond, I suppose, to maximal or very strong reluctance. Clearly, however, the reluctance to discard a given sentence may very well vary from one person and time to another. So this too is a notion of *relative* analyticity. Apparently it is acceptable to Quine. Let us call it Q₁-analyticity.

A different notion of relative analyticity is suggested by Quine in 1974: "A sentence is analytic for a native speaker [...] if he learned the truth of the sentence by learning the use of one or more of its words".¹⁷ He says that this "accounts for such paradigms of analyticity as 'No bachelor is married', and also for the analyticity of many elementary logical truths. The concept can be adjusted to cover also the truths derivable from analytic truths by analytic steps".¹⁸ Let us call this Q₂-analyticity.

Q-analyticity – i.e. Q₁-analyticity or Q₂-analyticity – is relative. But we may also get a more absolute notion of analyticity, by referring to sentences that are Q-analytic for all or most speakers all or most of the time.

¹⁵ Quine 1995, p. 76.

¹⁶ Quine 2008, p. 35.

¹⁷ Quine 2008, pp. 395–396.

¹⁸ Quine 1992, p. 55.

The sentence "The sum of the three angles of a Euclidean triangle is 180 degrees" may be Q_2 -analytic for many people at many times, but its analyticity is not absolute. Most mathematical truths may not be Q_2 -analytic for anyone. Presumably, this is the case with truths like " $68 + 57 = 125$ " and Euclid's theorem that there are infinitely many primes, but some of these truths may nevertheless be Q_1 -analytic for some people.

4. EPISTEMIC AND PRAGMATIC ANALYTICITY

In recent years, Paul Boghossian has revived the logical empiricist's "analytic theory of the a priori". He believes that he can avoid Quine's criticism of analyticity by making a distinction between a "metaphysical" and an "epistemological" analyticity. He thinks that the former (truth in virtue of meaning) is discredited by Quine's arguments, but that the latter is not. A sentence S is *epistemologically analytic* if "mere grasp of S 's meaning by T sufficed for T 's being justified in holding S true".¹⁹

However, Quine's criticism seems to hit epistemological analyticity at least as much as truth in virtue of meaning alone. For how are we to decide, by empirical methods, whether a person is *justified* in holding a sentence true? If justification is a *normative* notion, this cannot be easy. And how do we decide whether justification in a given case depends *only* on mere grasp of meaning?

Moreover, Boghossian's proposal does not seem to work as promised. Consider, e.g., Euclid's theorem. I guess many would agree that this is something we can know a priori. We are justified in believing that there are infinitely many primes, if we have proved it or if we know of Euclid's proof. But we can know what the theorem means (namely that there are infinitely many primes) even if we cannot prove it and have never heard of any proof.

One may wonder why Boghossian favors his epistemic notion over what may be called a "pragmatic" notion of analyticity – according to which, for every T , mere grasp of S 's meaning by T is sufficient for T 's holding S true. He might say that justification is a key issue for "the analytic theory of the a priori". This may be so, but his epistemological notion does not solve the problem. For we still need an explanation of *how* one becomes justified in holding a sentence true just by grasping its meaning. If one learned that it is true in learning its meaning, this may be an explanation. But if so, we are back at Q_2 -analyticity.

¹⁹ Boghossian 1999, p. 334. Italics have been removed. – As it stands, this definition is incoherent. But I guess Boghossian presupposes the prefix: "For all T ". But why shouldn't grasp of S 's meaning be sufficient for justification in some, but not all, cases?

Timothy Williamson has argued that no sentences are analytic in what I just called the "pragmatic" sense. He calls this an "epistemological" sense, defined as follows: "a sentence s is analytic just in case, necessarily, whoever understands s assents to s ".²⁰ He argues, rather convincingly, for the following thesis: "No given argument or statement is immune from rejection by a linguistically competent speaker".²¹ Does it follow that there are no Q-analytic sentences? No. One may very well come to believe, for more or less sophisticated reasons, that a sentence one was previously extremely reluctant to reject in the face of contrary evidence – or a sentence one once learned to hold true, by learning the meaning of some of its words – is nevertheless false. Williamson himself provides several examples of this.²²

5. QUINEAN ANALYTICITY AGAIN

So let us look more closely at relative analyticity. Consider the following story. Alex wondered early in life what the word "bachelor" means, and his parents explained it to him. They told him that "bachelor" means the same as "unmarried man" and that, therefore, all unmarried men are bachelors. Alex himself was a bachelor until he married at the age of twenty-five. But his wife tragically died when he was forty. His parents then said to him: "So now you are a bachelor again". Alex did not agree. He said: "No, I am an unmarried man, but I am a widower, not a bachelor".

In this case, the sentence "All unmarried men are bachelors" seems to be Q_2 -analytic for Alex at every time after he learned the use of the word "bachelor". But this shows that Q_2 -analyticity is not a suitable notion of analyticity. It does not reflect Alex's actual use of language later in life. In general, the fact that we originally learned to use language in a certain way does by no means imply that we will always use it in this way later on.

In order to find a better Quinean notion of analyticity – Q_3 -analyticity, let us say – we may try the following. We may say that s is analytic for x at t iff x has a disposition at t to use the words in s in such a way that s is necessarily true. As far as I know, this notion is never considered in Quine's writings, but even so it may perhaps be called "Quinean", since it is relative, like the Quinean notions, and it focuses on dispositions to verbal behavior, as Quine requires. Moreover, it exploits the intimate relation between analyticity and necessity that

²⁰ Williamson 2007, p. 73–74.

²¹ Williamson 2007, p. 97.

²² Williamson 2007, Chapter 4.

Quine seems to accept.²³ As far as I can see, it is also rather close to Q₁-analyticity, since Quine tends to explain necessity in terms of strong reluctance to revision.²⁴ In any case, for Alex later in life "Men who have never married are bachelors" is Q₃-analytic, but "Unmarried men are bachelors" is not.

6. JUSTIFICATION

Many sentences may be Q₃-analytic for many of us most of the time. But how do we *know* that these sentences are true? More specifically: we *believe* that they are true, and perhaps they *are* true, but in what way, or in virtue of what, are we *justified* in believing that they are true?

Could we be justified in believing that *s* is true, if we "see" this in an act of *rational insight* or intuition?²⁵ This is not very likely. We may have been genetically conditioned to intuit certain facts as a result of biological evolution, but such intuitions can hardly be related to such recent phenomena in the evolution of mankind as the use of language. Besides, how could we be justified in believing that rational insight provides justification? Can we be justified in believing this on the basis of rational insight? If so, how do we know? By rational insight? This seems to lead to an infinite regress.

Let us consider a related problem. Let us ask how one can be justified *a posteriori* – i.e. on empirical grounds – in believing something. There may be several ways, but let us focus on the two most close at hand. First, there is *direct observation*. For example, we are justified in believing that it is raining when we see that it is raining (provided there is no contrary evidence). Second, we may be justified in holding a theory true if it is more indirectly related to observations by the so-called *hypothetico-deductive* method.²⁶

This may be a correct description of our justificatory practice. But how do we know that our theories are really justified in these ways? Are we *justified* in believing this? Several philosophers seem to hold that we can only have *a priori* justification for this. For example, Bonjour claims that

some of the things we believe are presumably justified in some way by direct experience or direct observation, without the need for inference or argument [... but] nothing that would count as genuine reasoning, as deriving or inferring a further conclusion that goes in any way

²³ See Quine 1953, p. 29.

²⁴ See e.g. Quine 1987, pp. 141–142.

²⁵ For the role of rational insight, see e.g. Bonjour 2001, p. 629.

²⁶ Quine says that "naturalism [...] sees natural science as [...] not in need of any justification beyond observation and the hypothetico-deductive method" (1981, p. 72).

beyond the initial premises, can be justified by experience alone. Experience can of course add further premises, but when all of the premises thus derived have been assembled, either nothing further can be justifiably derived from them (in which case there is no true reasoning) or else the transition to that further conclusion must be justified in some way other than by appeal to experience, i.e., must be justified a priori.²⁷

Similarly, Thomas Nagel says:

Even empirical knowledge, or empirical belief, must rest on an a priori base, and if large conclusions are derived from limited empirical evidence a large burden must be carried by direct a priori formulation and selection of hypotheses if knowledge is to be possible at all.²⁸

And Hartry Field says that

there are reasons for thinking that empirical methodology is strongly a priori, in the sense that its rules are rationally employable independent of evidence and can't be undermined by evidence.²⁹

So, is a posteriori justification justified a priori? This seems right in the case of observation. Apparently, there are only two alternatives. Either we are not justified *at all*, or we are justified *a posteriori*, in believing that we are justified in believing what we observe. The former alternative is perhaps not very plausible, since we have been taught precisely that we *are* justified in assenting to the sentences we use to express observations in situations when we make those observations. The latter alternative is also implausible – at least if justification is normative – since we can hardly have *empirical* reasons to believe that we are (normatively) justified in believing what we observe.

Are we justified in accepting theories that are supported by the hypothetico-deductive method? That we *do* act in accordance with some version of that method is probably an effect of natural selection, and presumably this is reinforced by successful applications of the method in more recent years.

Moreover, the fact that we *believe* (or "see" by means of rational insight) that we are justified in applying the hypothetico-deductive method is probably due to the fact that we have a strong natural disposition to act in this way. But is the belief *true*? Are we justified in believing that that we are justified in applying the hypothetico-deductive method?

²⁷ BonJour 2001, p. 626.

²⁸ Nagel 1986, pp. 83–84.

²⁹ Field 2005, p. 74.

7. A PSEUDO PROBLEM?

This seems to be a very important question in epistemology, but Hartry Field appears to believe that it does not have any true answer. He says that

we simply have an attitude of regarding some beliefs as entitled under some circumstances, others not; and we regard some of them as entitled in absence of evidence for or against, even though there might someday be evidence that disconfirms them. And to put it crudely, there are no “facts about entitlement”, there is nothing beyond these attitudes; we can evaluate attitudes as good or bad, but such evaluation is not a “factual” enterprise.³⁰

I take it that to have an attitude of regarding a belief as entitled (justified) is the same as to believe that the belief is justified. When Field says that “there is nothing beyond” such attitudes, he may mean that they are neither true nor false. If so, he presupposes a noncognitivist view. But the important question is whether there can be any argument or rational support for an attitude to the effect that a belief is justified. Field seems to believe that this is impossible.

8. COHERENTISM

But I believe that it is possible, at least in many cases. A very common and plausible idea is that a belief may be supported by other beliefs. The totality of a person’s beliefs at a certain time – his “total theory” at the time – constitutes a more or less coherent whole, a “web of belief”, which the person may attempt to amplify and render consistent in various ways. Thus Quine says:

The totality of our so-called knowledge or beliefs, from the most casual matters of geography and history to the profoundest laws of atomic physics or even of pure mathematics and logic, is a man-made fabric which impinges on experience only along the edges. Or, to change the figure, total science is like a field of force whose boundary conditions are experience. A conflict with experience at the periphery occasions readjustments in the interior of the field. Truth values have to be redistributed over some of our statements. Re-evaluation of some statements entails re-evaluation of others, because of their logical interconnections – the logical laws being in turn simply certain further statements of the system [...] No particular experiences are linked with any particular statements in the interior of the field, except indirectly through considerations of equilibrium affecting the field as a whole.³¹

³⁰ *Ibid.*

³¹ Quine 1953, pp. 42–43. Many of our beliefs may never be formulated explicitly; most of the time we may not even be aware of them.

As far as I know, Quine never said that our normative and evaluative beliefs should also be included in our total theory; nevertheless, this is a rather plausible view. In particular, the belief that we are justified (other things being equal) in believing what we directly observe, and what we can support by means of the hypothetico-deductive method, can plausibly be included in our total theory. For this evaluative or normative belief is clearly closely related to our more "factual" and theoretical beliefs. It may not have any empirical content of its own, but the same is true of logical and mathematical beliefs as well as of most other theoretical beliefs. It may not even contribute to the empirical content of any set of beliefs, but this is irrelevant; as Quine points out, the same is true of many other beliefs of a more theoretical kind in our total theory. He writes:

Much that is accepted as true or plausible even in the hard sciences, I expect, is accepted without thought of its joining forces with other plausible hypotheses to form a testable set. Such acceptations may be prompted by symmetries and analogies, or as welcome unifying links in the structure of the theory. [...] Positivistic insistence on empirical content could, if heeded, impede the progress of science.³²

This quotation may perhaps be taken to indicate that Quine would only include what is "true or plausible" in our total theory, and like Field he may be a noncognitivist about evaluations.³³ But I find it hard to believe that he would stick to such a view. As I mentioned above, he says e.g. that natural science does not need any justification beyond observation and the hypothetico-deductive method. I take this to imply that, according to Quine, scientific beliefs *can* be justified by observation and the hypothetico-deductive method. And it is reasonable, I think, to assume that he holds this to be true – and that it is therefore part of his total theory. After all, it is an epistemological belief and Quine regards epistemology as included in science.³⁴

In any case, I think that beliefs about justification should be included in a person's total theory. They can contribute to the coherence of such a theory;

³² Quine 1995, p. 49.

³³ At least, Quine wanted to be a noncognitivist about evaluative statements in ethics and aesthetics, since these seemed to him not to contain any "cognitive claims"; see Bergström and Føllesdal 1994, pp. 202–3. But, on the other hand, he also seemed to believe that some aesthetic value judgments might have a cognitive content; see *ibid.* p. 204.

³⁴ See e.g. Quine 1969, p. 82. And scientists may, in their professional role as scientists, say things like "At the beginning of the 21st century, we are justified in believing that the universe is expanding at an accelerating speed". This may be an evaluative statement.

they can, in Quine's words, be "welcome unifying links in the structure of the theory". And thereby, contrary to what seems to be Field's view, they can be justified by being supported by the rest of the theory.

9. CONSERVATISM

There is another way of looking at this. Some philosophers believe that we are automatically justified in believing what we believe, as long as there is no contrary evidence. For example, Gilbert Harman writes:

What I take to be the right theory of justification goes something like this (Goodman [...]; Quine [...]; Quine and Ullian [...]; Rawls [...]). In deciding what to believe or what to do, you have to start where you are with your current beliefs and methods of reasoning. These beliefs and methods have a privileged status. You are *justified* in continuing to accept them in the absence of a serious specific challenge to them, [...].³⁵

This is epistemological conservatism (Harman calls it "general conservatism"): justification is for free, so to speak, as long as there are no counter-arguments.

Harman cites Quine as a proponent of this kind of conservatism, but I have found no evidence for this interpretation in Quine's writings. I suggest, rather, that Quine might say that our use of observation and the hypothetico-deductive method is justified *a posteriori*, since – as I argued above – it coheres with the rest of our total theory, which is in turn empirically supported.

The view that we are justified in using the hypothetico-deductive method simply because we *do* use it does not seem to be justified. The problem with conservatism is that it does not make a distinction between those elements of our total theory that cohere in the relevant way with the rest and those that do not. The latter are mere additions not supported by anything and therefore not justified. Mere consistency is not sufficient for coherence.

Many philosophers like to speak of a "reflective equilibrium" as a ground for justification of one's total theory, as if each and every element in the theory is justified if it is consistent with the rest and if some (or all?) elements contribute to explanations of, or are explained by, others. But as far as I can see, there are at least two problems here. First, one's total theory may be completely consistent, even though many elements in it do not stand in explanatory or probabilistic relations to other elements. Second, some elements may be consistent with the rest and also explanatorily or probabilistically related to others, but not related in this way to the empirical content of the theory.

³⁵ Harman 2003, section 2.1. My italics.

Examples of such elements may be various philosophical beliefs – e.g. the belief that time is closed rather than open; that something existed before the Big Bang; that all possible worlds are concrete and real; and that we have free will. Many beliefs about the distant future may also belong here as well as many normative and evaluative beliefs.

Proponents of the reflective equilibrium view often refer to Nelson Goodman’s account of the justification of deduction. According to Goodman “rules and particular inferences alike are justified by being brought into agreement with each other”.³⁶ But this can easily be misunderstood. Consider the following analogue: “general and particular statements about the distant future are justified by being brought into agreement with each other”. Clearly, this is insufficient. Both general and particular statements may be unjustified. Goodman also says that the principles of deductive inference should be in conformity with *accepted* deductive practice. This indicates a social requirement – intersubjectivity – in addition to mere coherence. But this move would not save our statements about the distant future. Many of our commonly accepted statements about the distant future may be quite unjustified. In another context, Goodman mentions a further requirement:

Now clearly we cannot suppose that statements derive their credibility from other statements without ever bringing this string of statements to earth. Credibility may be transmitted from one statement to another through deductive or probability connections; but credibility does not spring from these connections by spontaneous generation. Somewhere along the line some statements, whether atomic sense reports or the entire system or something in between, must have initial credibility.³⁷

In the case of deductive inference, I suppose the initial credibility comes from our learning the elementary logical vocabulary, which makes simple logical truths Q_2 -analytic for most of us most of the time. We are taught that we are justified in accepting those statements. Similarly, I suppose, with simple arithmetical statements like $1 + 1 = 2$ and $2 \times 5 = 10$.

Other beliefs are justified by being supported by observational evidence. Such evidence is expressed by observation sentences; these are “keyed directly to a range of perceptually fairly similar global stimuli” and, ideally, they satisfy the social requirement of “unhesitating concurrence by all qualified

³⁶ Goodman 1965, p. 64.

³⁷ Goodman 1952, pp. 162–3.

witnesses”.³⁸ In learning to use observation sentences we are taught that we are justified in accepting them under certain stimulations. Consequently, when we are competent speakers, our observational beliefs are initially credible (but, of course, fallible).

10. IS COHERENTISM JUSTIFIED?

So we are back to the earlier conclusion that our usual empirical methodology is justified because it coheres with the rest of our total theory – which is in turn justified by our usual empirical methodology. But, it may be asked, isn’t this viciously circular?

Well, it is circular, but not viciously so, since it is quite in accordance with coherentism. But are we justified in believing in coherentism? We cannot answer that this belief is justified because it coheres with our total theory. For *this* would be viciously circular.

Here someone may say that we are *a priori* justified in accepting coherentism. But this seems wrong. It would lead to an infinite regress. Are we also *a priori* justified in believing that we are *a priori* justified in accepting coherentism? And so on.

No. A more plausible position is that we simply *do* accept and conform to coherentism – and that no further justification is needed for this. Perhaps we are genetically programmed by evolution to behave like this, and if so it would of course be quite natural for us to *believe* that we are justified in behaving like this. But this would not make the belief true.

11. A PRIORI JUSTIFICATION

Now let us return to the initial question of whether there is any *a priori* justification. On the basis of the preceding discussion I believe that the following points can be made.

(1) Paradigm cases of *a priori* justification are provided by proofs in mathematics. A good example would be Euclid’s theorem that there are infinitely many primes. Clearly, we are justified in believing this, if we are familiar with the proof.

(2) This is quite consistent with Quine’s views. “Having reasonable grounds is one thing, and implying an observation categorical is another”,³⁹ as

³⁸ Quine 1995, pp. 43–4.

³⁹ Quine 1995, p. 49. According to Quine, theories have empirical content to the extent that they imply observation categoricals (which are in turn made up by observation sentences).

he himself has pointed out. I am sure he would agree that we have "reasonable grounds", in the form of a proof, for believing that Euclid's theorem is true – whether or not Euclid's theorem can in addition contribute to implying an observation categorical. But I suppose that we may also speak of a priori justification when we have "reasonable grounds" that are somewhat weaker than a mathematical proof. Philosophical arguments, for instance, may sometimes provide such justification. Acceptations prompted by "symmetries and analogies, or as welcome unifying links in the structure of the theory", as Quine puts it, may thus be justified a priori.

(3) But what is justified a priori may in addition be justified a posteriori. Contrary to what seems generally to be assumed, these possibilities are not mutually exclusive. For example, Euclid's theorem is connected with lots of other mathematical statements, and some of these may play an indispensable role in empirical testing of various theories.⁴⁰ If so, we are also indirectly a posteriori justified in believing that Euclid's theorem is true – to the extent that those other statements share empirical content with further theoretical sentences and are thereby confirmed by observations. But this does not exclude a priori justification of our belief that the theorem is true.

(4) After all, the very distinction between a priori and a posteriori justification may in fact be rather fuzzy or unclear. If we argue in a coherentist way that a belief is supported by certain non-observational elements in our total theory, this may be regarded as a priori justification. It is an argument, even if it is not strictly a proof. But this very argument may also be regarded as providing a posteriori justification, if the specific elements referred to are in turn supported by observation and the hypothetical-deductive method.

(5) Some philosophers hold that a priori statements are unrevisable.⁴¹ But, according to Quine, "no statement is immune to revision".⁴² Consequently, one

⁴⁰ This should not be confused with the fact that some "mathematical" statements, e.g. Euclidean *geometry*, can be interpreted as a theory about physical space, in which case they can be tested empirically. But if Euclidean geometry as a *physical* theory is disconfirmed empirically, it is not thereby tested and disconfirmed as a purely *mathematical* theory.

⁴¹ This is held, e.g., by Hilary Putnam 1977, pp. 205–7.

⁴² Quine 1953, p. 43. Similarly, as we have seen, Williamson holds that no argument or statement is immune from rejection (2007, p. 97). Williamson also writes: "What strike us today as the best candidates for analytic or conceptual truth some innovative thinker may call into question tomorrow for intelligible reasons" (2007, s. 126). But Quine also says that it is "true enough in a legalistic sort of way", but "needlessly strong", to say that no statement is immune to revision (see 2008, p. 393).

might think that there are no "a priori statements" for Quine. Perhaps some reasoning like this lies behind the idea that Quine held that there is no a priori knowledge. But in this paper – as well as usually in philosophy – the label "a priori" is used, not for a kind of statement, but for a kind of justification. Besides modern proponents of a priori knowledge tend not to demand unrevisability. For example, BonJour says that "a priori insight is both fallible and corrigible".⁴³ This seems quite reasonable.⁴⁴

(6) What, then, about the relation between analyticity and a priori justification? I have suggested that Q₃-analyticity can be regarded as a Quinean notion of analyticity that, unlike many other notions of analyticity, can be accepted from an empiricist point of view. So, are we a priori justified in believing Q₃-analytic statements?

If a sentence is Q₃-analytic for *x* at *t*, she would perhaps regard it as "self-evident". It may also appear to *x* at *t* that she knows by "rational insight" that the sentence is true. But this *in itself* can hardly make *x* justified at *t* in believing that the sentence is true.

However, the fact that *s* is Q₃-analytic for *x* at *t* – in other words, the fact that *x* has a disposition at *t* to use the words in *s* in such a way that *s* is necessarily true – can plausibly be regarded as *externalist* justification for *x*'s belief that *s* is true.

Consequently, what has been called the "analytic theory of the a priori" – the view associated in particular with the logical positivists – can perhaps be saved, after all, even though justification must then be understood in an externalist way. But such a priori justification, as well as proofs and other forms of arguments not involving empirical evidence, is quite compatible with empiricism.⁴⁵

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⁴³ BonJour 2001, p. 625.

⁴⁴ But one may of course wonder whether we are *justified* in believing this – and if so, whether our justification is a priori.

⁴⁵ I am grateful to Dagfinn Føllesdal for helpful comments on an earlier version of this paper.

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