Philosophical and Empirical Knowledge in the Program of Naturalism[1]

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Abstract

The possibility of adopting a philosophical stance, talking about philosophical knowledge, and characterizing its relation to empirical knowledge forms an important set of foundational problems for the program of naturalism. Against the background of earlier 20th century analytic philosophy these issues are specifically acute, because naturalism rejects the very principles that such pure analytic and aprioristic philosophy relied on to demarcate itself from the special sciences. If the philosophical tradition is seen as depending on the autonomy of the conceptual sphere, then to keep the tradition alive, the program of naturalism will have to be able to provide some account of the nature and role of philosophical knowledge.

This paper will introduce the program of naturalism and the rejection of pure philosophy on the basis of W.V. Quine's work, in particular (section 1). A discussion of naturalized epistemology and of the applications of naturalism in the philosophy of mind will then be offered (section 2). Naturalism has also been a major trend of thought in contemporary philosophy of science. After having dealt with Arthur Fine's "natural ontological attitude" and some other forms of naturalism (section 3), we shall take a look at the scientific study of religion in the cognitivist paradigm as an example of the contrast between philosophical and special-scientific empirical knowledge (section 4). Finally, concluding reflections will pull these themes together (section 5).

1. Naturalism and the Rejection of Pure Philosophy

1.1. The Program of Naturalism

[1] The idea of writing this piece was formed in Leila Haaparanta's seminars on the nature of philosophical knowledge at the Universities of Helsinki and Tampere in 1999-2001. Heikki J. Koskinen is primarily responsible for sections 1 and 2 and Sami Pihlström for sections 3 and 4.

Before jumping to any conclusions about ”the program of naturalism”, or even prior to taking the notion itself for granted, it should be pointed out that in recent discussions, the usage of the term ’naturalism’ has become so varied that the resulting ambiguities make the label rather uninformative without some further specifications. Thus, discoursing as if there actually were some highly unified and carefully systematized program to talk about could be misleading. These days, almost every self-respecting member of the mainstream Anglo-American philosophical community claims to be a proponent of some form of naturalism, because in the existing philosophical climate, that is the thing to do. ’Naturalism’ has become a buzz word signaling praiseworthy intellectual ambitions and associating the card-carrying authors with the winning side against the Dark Forces of murky poets, mystery-mongers, and other suspect crackpots. However, the fact that ’naturalism’ has become so widely used also means that it has inevitably suffered a degree of conceptual inflation, because apart from a general and somewhat vague celebration of ”the scientific attitude”, it usually fails to pick out any clearly recognizable philosophical doctrine.

To illustrate this, we only need to note that naturalism can be understood as a metaphysical, ontological, epistemological, or methodological position, depending on the relevant author’s intentions and general orientation.[2] To add further confusion, taking a quick look, for instance, at recent philosophy of mind soon reveals that different thinkers may give quite contradictory detailed recommendations on ”naturalizing” phenomena like rationality, intentionality, or consciousness. They may even explicitly disagree on what naturalism itself actually means and amounts to (cf. e.g. Dennett, 1991; McGinn, 1993).

Such a disturbing situation demands that before embarking on the assessment of the problematic relation between philosophical and empirical knowledge in the program of naturalism, we should try to define a bit more clearly what *we* mean by ’naturalism’. For our purposes, therefore, and in the context of the present inquiry, we shall take ’naturalism’ to refer to a holistically empiricist metaphilosophical view about the nature and role of philosophical knowledge, especially in contrast to a vision of a ”pure” aprioristic analytic philosophy. Historically, the contrast is perhaps most vividly instantiated in the conflict between the metaphilosophical views of Rudolf Carnap and W.V. Quine, who formulated his position in direct response to the logical empiricism embodied in Carnap’s thought.

To a large extent, Quine is personally responsible for ”the naturalists’ return” (cf. Kitcher, 1992) on the philosophical scene, and the notion of naturalism is strongly associated with him and the school of American philosophy that has flourished after the appearance of his *magnum opus*, *Word and Object*, in 1960 (Wagner & Warner, 1993, p.1). Thus, Quine easily appears as

something of a founding father behind the current trend of naturalistic thought[3]. Quine's centrality to the program of naturalism in our sense is justified by the fact that in his writings, its central metaphilosophical aspects are both clearly and influentially articulated.

What, then, *are* the central metaphilosophical aspects of Quinean naturalism? We shall have more to say on the subject as we proceed, but let us start by taking a look at the central points of Quine's naturalism as summarized by the leading Quine-apologist Roger F. Gibson (1995):

(1) Quine rejects the traditional quest for a first philosophy, i.e. the quest for a ground somehow outside of science upon which science can be justified, and
(2) Quine accepts science as the final arbiter concerning questions of what there is.

The first point tells us that philosophy can claim no autonomous point of view and has no independent ground for knowledge, while the second seems to imply that science gives us all the answers to the questions that are well formulated and worth asking in the first place. If philosophy is not seen as a form of purely expressive literary activity, but is taken to be a cognitive discipline that is at the same time strictly demarcated from the sciences, Gibson's summary seems to leave a rather dim view of the possibility of philosophical knowledge. The very sustainability of philosophy is clearly at issue here. There appears to be no room for classical metaphysics or the traditional analytic notion of philosophy as a conceptual discipline standing outside science and critically analyzing various linguistic frameworks and practices.

Some authors have obviously taken this interpretation seriously, for Quine has been called ”the primary subverter of analytic philosophy” (Hacker, 1998), he has been accused of trivializing the notion of analysis (Hylton, 1998), and the kind of philosophy endorsed by Quine has been seen to lead to the loss of philosophy's autonomy and authority (Bealer, 1996). If these accusations can be made to stick, Quine could indeed serve as an example of ”extreme scientistic post-philosophy” (Pihlström, 1998). Is there anything that naturalism as a metaphilosophical view can say in its own defence? Can we speak about philosophical knowledge in connection with naturalism? If we can, how is naturalistically construed philosophical knowledge related to that provided by the special sciences?

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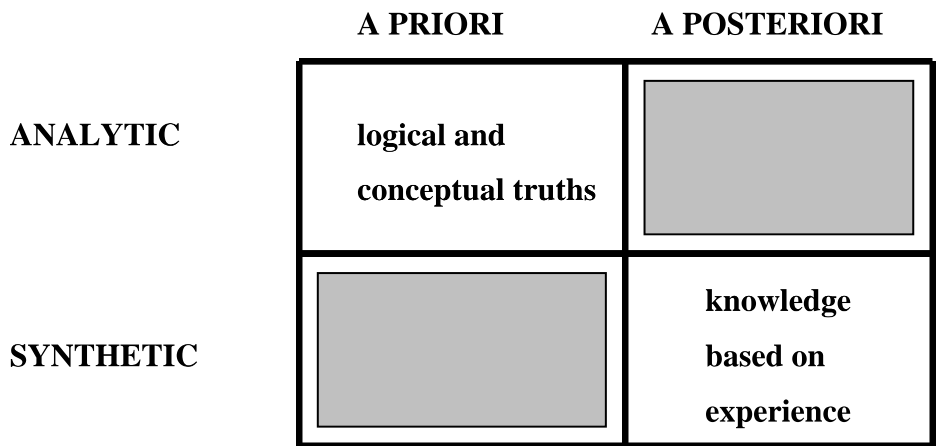
[2] Cf. e.g. Kornblith (1994b); Schmitt (1995); and Keil & Schnädelbach (2000).
[3] Of course, if naturalism is understood differently, e.g. as an alternative to various forms of supernaturalism, there have been naturalistic philosophers at least from Leucippus and Democritus onwards.

1.2. The Notion of Pure Philosophy Characterized

In order to see Quinean naturalism in its proper systematical role, we should first say something about the conception of pure analytic philosophy that is rejected by the metaphilosophical vision of naturalism. In fact, both naturalism and pure analytic philosophy are themselves parts of a long series of reformations in philosophy, and the immediate background for them in turn is Immanuel Kant, whose aim was to reform metaphysics in accordance with the already achieved successes of the exact sciences (cf. Friedman, 1999, p. 4). Rejecting previous forms of supersensible metaphysical knowledge, Kant's transcendental project concentrated on the possibility of pure mathematics and natural science. His answer relied on the notion of *synthetic a priori* knowledge, which consisted of propositions that applied to the world yet could not be derived from observations of the world.

In sharp contrast to the Kantian solution, logical empiricism's answer to the foundational metaphilosophical questions was based on the strict rejection of the synthetic a priori, together with an exclusive division of the field of knowledge into the analytic a priori and the synthetic a posteriori. For logical empiricism, there was to be no third way politics in the area of meaningful statements. The field of synthetic a priori was considered empty, and the Kantian role of philosophy as a critical transcendental discipline was given up completely. At the same time, philosophy was clearly demarcated from the empirical special sciences. Only the sciences had any authority on the truth-value distributions of synthetic a posteriori propositions, and philosophy was to be a purely conceptual enterprise dealing in linguistic frameworks. As a result, philosophers could not, and should not even try to say anything about the world. The following familiar table graphically illustrates the situation:



As a science of formal proof procedures, logic focuses on the *validity* of arguments rather than their *soundness*: The truth of an argument's premises is normally an issue that is none of the logician's business. To decide whether an argument is sound, we have to decide whether the premises are true, but validity can be investigated without having to bother about the truth-values assigned to any specific propositions. Logical implication is validity of the conditional, formed from the conjunction of the premises as the antecedent, and the conclusion as the consequent. We can think of a logical system as a constitutive structure for a semantic framework into which other meaning-facts can be incorporated, and from which the analytic truths flow. An axiomatization of purely logical principles provides the background framework into which meaning-relations between predicates[4] can then be added as postulates or further axioms of the framework. Thus we get Quine's (1980, p. 22) two classes of statements that are analytic ”by general philosophical acclaim”: the logical truths, and the ones that can be turned into logical truths by putting synonyms for synonyms.

In his syntactical phase, Carnap specifically emphasized the Principle of Tolerance, according to which there are no morals in logic, and consequently, logic should not look for the ”right” or ”correct” principles. Michael Friedman (1998) describes Carnap's vision thus:

> The task of logic is rather to investigate the structure of any and all formal languages – ”the boundless ocean of unlimited possibilities” – so as to map out and explore their infinitely diverse logical structures. Indeed, the construction and logical investigation of such formal languages became, for Carnap, the new task of philosophy. The concept of analyticity thereby took on an even more important role. For this concept characterizes logical as opposed to empirical investigation and thus now expresses the distinctive character of philosophy itself.

In some sense, the logical empiricist metaphilosophical move meant a return to the pre-Kantian situation staged by Hume and his ”commit it then to the flames” policy. With the development of the new logic, the Humean Fork of *matters of fact* and *relations of ideas* was sharpened to an unprecedented degree, and could now be more efficiently used in picking out the sophistry and illusion from the intellectual soup cooked up by previous philosophers. After Hume,

[4] Some discussion of the role of meaning postulates in the context of contemporary semantic theory can be found e.g. in Hurford & Heasley (1996) and Gamut (1991a; 1991b).

Kant had planted the synthetic a priori on which philosophy could subsist, but the logical empiricists decisively eradicated it, and returned to the preceding desert landscape.

The pure analytic conception relied on a relativized notion of the a priori (cf. Friedman, 1997), using it to demarcate philosophy from the empirical special sciences. Thus, we could talk of philosophical knowledge in a special sense in connection with the explication of the frameworks. Philosophy was not seen as a science among sciences, but was taken to be radically different from them in concerning itself with the conceptual foundations of other disciplines. Pure analytic philosophy did not claim to have any special access to an extrasensory level of reality, but it did have a constitutional role because it studied the most general and abstract aspects of our theories of the world. Philosophical progress then consisted in the construction and better understanding of the various constitutive theories or linguistic frameworks making other fields of knowledge possible. A touch of the transcendental could still perhaps be discerned by the careful inspector.

1.3. Quinean Holistic Empiricism

The metaphilosophical view associated with logical empiricism had turned off the synthetic a priori screen from our earlier tabulation of the a priori and the a posteriori together with the analytic and the synthetic. It had classified philosophy as a strictly analytico-aprioristic discipline; analyticity provided an epistemic justification for a priori knowledge, in the domain of which philosophy too belonged. Within the Quinean form of naturalism, the lights go out also from the analytic a priori screen, leaving the synthetic a posteriori as the only remaining option. For those who insist on taking the ”pure philosophy or nothing” attitude, this obviously threatens to imply the end of all philosophy.

Quine dismisses the earlier form of *logical* empiricism in favour of his more thoroughgoing *holistic* empiricism. This holism is combined with the ”web of belief” model and a naturalistic metaphysical vision according to which everything, including our use of language, is part of an all-encompassing natural reality. Whatever evidence there is for science is sensory evidence, and all inculcation of meanings of words must rest ultimately on sensory evidence (Quine 1969, p. 75).

The traditional Aristotelian notion of essence is easily connected with a vision of philosophy that takes its task to be the metaphysical revelation of the fundamental essences of things. With the linguistic turn exploiting analyticity, philosophers’ attention turned to forms

realized in the structure of language, formal and natural. This turn was characterized by a resolute rejection of the old-style essentialistic thought, and more often than not, its spirit was militantly anti-metaphysical. For Quine, however, this purportedly radical break with the past was perhaps not as decisive as it could or should have been, for he (Quine, 1980, p. 22) sees the Aristotelian notion of essence as the forerunner of the modern notion of meaning. Meaning-facts constituted the special field reserved for linguistically oriented philosophers, and the strict demarcation line between analytic and synthetic sentences was so central to them, because they needed it to profile and legitimate their own discipline.

Instead of the supposed discontinuity, Quine highlights the analogies and similarities in attitude between earlier metaphysical and later linguistic philosophers:

> Where metaphysics had sought the essence of things, analytical philosophy as of G.E. Moore and after settled for the meanings of words; but still it was as if there were intrinsic meanings to be teased out rather than just fluctuant usage to be averaged out. Analyticity, then, reflected the meanings of words as metaphysical necessity had reflected the essences of things. (Quine, 1992, p. 55)

The central idea is beautifully and characteristically captured by Quine's (1980, p. 22) slogan "Meaning is what essence becomes when it is divorced from the object of reference and wedded to the word". It should be clear now that Quine does not accept the role that meaning-facts were supposed to play in the scenario of pure analytical philosophy[5]. After all the meaning-bashing that Quine has engaged in, philosophy finds itself in a situation where it has to think about its own status and justification anew.

How, then, is the constitutive structure of logical truths itself justified? With Quine, the two dogmas of empiricism have been given up, translation has gone indeterminate, and the ground of logical truth is not provided by convention or "the linguistic theory of logical truth" (cf. Quine, 1986, pp. 95ff.). Carnap had used analyticity to explain the meaningfulness and necessary truth of logical and mathematical statements, but Quinean holism accounts for the apparent necessity by freedom of selection and *the maxim of minimum mutilation*. The totality of our beliefs is so underdetermined by experience that in the light of recalcitrant experience we have much latitude of choice which statements to re-evaluate. Any statement can be held true come what may,

[5] Quine's anti-essentialist convictions are visible also in his critique of modal logic as well as in his ontology of physical objects, which takes these to be four-dimensional space-time zones, thus not requiring any individual essences to persist through time to provide for their continuing identity.

and conversely, no statement is in principle immune to revision (cf. Quine, 1980, p. 43). In order to keep our Neurathian boat of beliefs going, we sensibly resort to the virtue of conservatism, and choose to give the logical truths up the last.

Richard Creath (1987) has emphasized the fundamental difference between Carnap's normative epistemology and Quine's psychologistic view. For Quine (cf. 1976, p. 102), the apparent contrast between logico-mathematical truths that are a priori and have the character of an inward necessity, and the others that are a posteriori and do not possess any such necessity, should be viewed behavioristically. Without reference to a metaphysical system, the contrast turns out to be that between more and less firmly accepted statements within our web of belief. Thus the explanation for the ”necessity” is not to be sought from any constitutive listing of contextual norms, but turns out to be simply a fact discernible from a behavioral point of view. There is no higher or more austere necessity than natural necessity (*ibid.*, p.76).

1.4. The Autonomy of the Conceptual?

Where does this behavioristically descriptive account then leave philosophy? After all, philosophy as a legitimate form of rational activity would still seem to require and even presuppose some autonomy of the conceptual sphere. The two main ideas that Michael Friedman (1997, p. 7) puts forth as characterizations of philosophical naturalism serve to portray the problematic metaphilosophical setting quite well. These are:

> (1) the rejection of any special status for types of knowledge traditionally thought to be a priori, and
> (2) the view that philosophy, as a discipline, is also best understood as simply one more part – perhaps a peculiarly abstract and general part – of empirical natural science.

Even though Friedman (*ibid.*) himself thinks that naturalism is a tendency of thought that has reached the end of its useful life, and takes a critical attitude towards it, this characterization highlights exactly the aspects of naturalism that are central to the problem of sustaining the conceptual sphere and the philosophical stance within it. After Quine's heavy-handed naturalistic treatment, does the autonomy of the conceptual remain strong and stable enough for erecting the edifice of philosophy?

At least on one level, the element of normativity is driven out by Quine's behaviorist form of psychologism. On the other hand, it seems that even if that were the goal, we cannot get completely rid of norms, for the conservatively justified minimum mutilation principle is itself a kind of pragmatic norm of cognitive engineering[6]. The central status of logic clearly follows from the practical syllogism, whose goal sentence talks about the aim of explaining, predicting, and understanding the stream of activation impinging on our sensory surfaces. Of course, without assuming logic we could not resort to any kinds of syllogisms, or even try to make the present point. Letting go of logic or mathematics to set our system of beliefs straight when faced with unexpected observations would be an outrageously desperate remedy in view of the disturbing consequences for the whole edifice. Consequently, the descriptively observable behavior is a result of internalizing the prescriptive norms of rational discourse and world view construction.

Logic still retains its special status as a foundational discipline giving structure to, and holding together, the web of belief. Indeed, the web is, and can be, a structured web only because logic provides the connections between the beliefs (cf. Quine, 1960, pp. 12-13). Without these logico-structural relations, we could have at most a scattered set of disconnected beliefs, not amounting to much anything. Implication is what makes our system of beliefs cohere; it is the very texture of our web of belief, and logic is the theory that traces it (Quine & Ullian, 1978, p. 41). So, we can see that although the synthetic a posteriori is claimed to be the alfa and omega of all meaning and knowledge, both aspects of logical empiricism still make their presence strongly felt in the overall picture. Furthermore, this is only as it should be, for even the most fanatic imaginable sect of empiricism has to provide for the conceptual structure given by logic and mathematics in *some* way. Without some sort of logical foundation, no systematic knowledge representations are possible at all.

Friedman (1997) places himself on the metaphilosophical side of Carnap against Quine in suggesting his own picture of a dynamical system of beliefs, concepts, and principles as an alternative to the Quinean web of belief model. In Friedman's scenario, this dynamical whole can be analyzed into three main components of the evolving systems of (1) *empirical natural scientific* concepts and principles, (2) *mathematical* concepts and principles which frame those of empirical natural science and make their rigorous formulation and precise experimental testing possible, and (3) *philosophical* concepts and principles which serve, especially in periods of conceptual revolution, as a source of suggestions and guidance in choosing one scientific framework rather than another. All three systems evolve according to their own characteristic dynamics, even if they

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[6] Cf. this to the discussion of the role of normative criteria in connection with Arthur Fine's "natural ontological attitude" (NOA) in later sections.

are in constant interaction. As a result, philosophy not only functions at a different level than the scientific disciplines, but also within its own characteristic intellectual context.

This is one way of saving the autonomy of the conceptual, and legitimating the philosophical stance. On the other hand, it is not at all clear that similar arrangements could not be made within the web of belief model. Friedman seems to presuppose that Quinean anti-demarcationism and general rubbing out of boundaries makes this impossible, but the holistic view of the formulation and testing of theories in effect makes a similar organization within the web of belief quite possible, and perhaps even necessary. In deciding which parts of the whole to hold constant while testing some other parts against observation, we in fact do adhere to a similar evolving dynamics: If we get an unexpected numerical value for some experimental measurement, our first thought is usually not to revise the laws of arithmetic. Even if our theories do face the tribunal of experience as wholes, or perhaps as more modest chunks of critical semantic mass, the different layers do not in practice stand on an equal footing.

For Quine, the canonical notation of first-order predicate calculus is an instrument of explicative paraphrasis serving the purposes of metaphysics, ontology, semantics, and epistemology. In view of his holism, Quine has to allow for the possibility of revising even the logical truths in the course of formulating the best overall theoretical framework. On the other hand, his attitude sometimes seems almost Kantian in spirit, and it is as if he was thinking that all else may tumble and fall, but the canonical notation remains in the hard core of the web of belief, come what may. At such times, it is easy to wonder whether the analyticity issue between logical empiricism and holistic empiricism is a pseudoproblem, after all (cf. e.g. George, 2000). If nothing changes, isn't the fight fought over a distinction without a difference?[7]

2. Naturalized Epistemology and Philosophy of Mind

2.1. Rational Reconstruction vs. the Real Story

Even the very shortest imaginable list of the central areas of philosophical inquiry would have to include epistemology. No account of the discipline can leave the theory of knowledge out, and still claim to be an adequate representation of what has been and is currently going on in philosophy.

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[7] The difference *does* become visible, however, on the abstract level of philosophical practice, where one is specifically expected to formulate consistent and systematic views of such conceptual issues. The situation also reveals something about the general nature of philosophical knowledge.

The importance of epistemology to the wider subject means that the account given of its the nature and role has far-reaching implications for our conception of philosophy. Obviously, our handling of the question of the nature of philosophical knowledge will also have to be inescapably linked with our even more fundamental understanding of knowledge itself.

The notion of naturalized epistemology lies at the very heart of the Quinean conception of philosophy. In literature, the possibility, feasibility, and consequences of a naturalistic theory of knowledge have been hotly debated (cf. Kornblith, 1994a). The issue is closely connected with the autonomy and normativity of the conceptual sphere that we reviewed in the previous section 1, and here too, some have taken naturalized epistemology to spell the end of philosophy. On the other hand, Quine's writings have launched what are today substantial research programs (cf. Nelson & Nelson, 2000). Whether these "research programs" belong to philosophy proper, or are parts of empirical cognitive sciences, will then have to be judged from a metaphilosophical point of view.

Despite being in some central aspects critical towards it, Quine's conception of naturalized epistemology grows directly out of the Frege-Russell-Carnap tradition of scientific philosophy. In the spirit of logicism, secure epistemological foundations were sought for mathematics by reducing it to logic, which was considered a more fundamental discipline. The general plan was to give a definition of the concept of number, and then utilizing this basis, to deduce the mathematical truths from purely logical axioms showing that mathematics had no special axioms of its own. Thus, the analytic nature of the propositions of arithmetic was to be proved by deriving them from general logical laws with the help of suitable definitions. In the process, the axioms, definitions, and rules of inference were all to be explicitly specified. Frege's conceptual notation for pure thought, *Begriffsschrift*, was devised as a means of achieving all this.

Together with Whitehead, Russell continued Frege's logicist program in well-known ways by publishing the monumental *Principia Mathematica* in 1910-13. Even if it was actually read by very few people, this work came to have an enormous influence on subsequent philosophy. Russell himself also suggested that foundations for our knowledge of the external world could be provided along similar lines. This in turn inspired Carnap, who then proceeded to sketch a *logischer Aufbau* of the world in a technically more detailed manner. As already pointed out, Carnap's conception of epistemology and philosophy in general was what Quine reacted against in formulating his own metaphilosophical position.

In "Epistemology Naturalized" (Quine, 1969, pp. 69-90), the most important single paper behind the program of naturalized epistemology, Quine takes the success achieved in the foundations of mathematics to be exemplary by comparative standards, and suggests illuminating

the rest of epistemology by drawing parallels. He divides studies in the foundations of mathematics symmetrically into two sorts. The first ones are *conceptual* in nature, and they are concerned with meaning, clarifying concepts by defining them. The purpose of this enterprise is to define the obscurer concepts in terms of the clearer ones, thus maximizing conceptual clarity. The other sort is the *doctrinal* studies that are concerned with truth, and establishing laws by proving them. Here too, the less obvious laws are proved from the more obvious ones so as to maximize certainty. So, on the conceptual side, we have meaning and clarity, while on the doctrinal side we have truth and certainty. In an ideal situation, the definitions generate all the concepts from clear and distinct ideas, while the proofs generate all the theorems from self-evident truths (*ibid*., p. 70).

However, on the mathematical scene the epistemological success actually achieved did not live up to the ideal. On the conceptual side, the disappointment came in having to admit that mathematics reduces only to set theory, not to logic proper (cf. Quine, 1986, pp. 61ff.). As for the doctrinal side, the axioms of set theory are less obvious and certain than most of the mathematical theorems derived from them. This seems to reverse their supposed relation of epistemic groundedness. Even worse for the doctrinal side was Gödel's Incompleteness Theorem showing that a formally complete theory of arithmetic is not possible. Hence, no consistent axiom system can cover mathematics even when we give up the hope of self-evidence (cf. Quine, 1969, p. 70).

The analogy to the epistemology of natural knowledge is that just as mathematics is to be reduced to logic and set theory, natural knowledge is to be based somehow on sense experience. On the conceptual side the notion of body needs to be defined in sensory terms, while on the doctrinal side our knowledge of truths of nature is also to be justified in similar terms. The latter project has not been successful, and Quine does not see that we are farther along today than where Hume left us. Carving another memorable one-liner, Quine (*ibid*., p. 72) states that ”The Humean predicament is the human predicament”. Accordingly, the Cartesian quest for certainty on the doctrinal side was seen as a lost cause. On the other hand, on the conceptual side there has been progress, and Quine mentions the milestones of contextual definition and the resort to the resources of set theory as auxiliary concepts.

Utilizing these, Russell and Carnap set out to construct the external world on an empiricist foundation. The supposed advantages of such a *rational reconstruction* consisted in avoiding circular reasoning on the one hand, and the willingness to establish the essential innocence of physical concepts by translating science into observation terms, logic, and set theory on the other. The difficulties with translational reduction eventually led Carnap to give it up, and then to propose

looser reduction forms instead[8]. From the point of view of a rational reconstruction, however, the problem with reduction forms is that they give us only implications, and not the strict type of definitionary equivalences that would be required by a proper reduction by translation. Since the attempted reconstruction fails, Quine (*ibid*., p. 78) recommends that we should strive to discover how science is in fact developed and learned rather than to fabricate a fictitious structure to a similar effect.

This leaves the problem of circularity. The traditional view of epistemology as a conceptual and normative enterprise evaluating our claims to knowledge from some kind of transcendental position could not itself resort to science or empirical findings, because this would have exposed the discipline to circular reasoning: epistemology could not simply assume what it was trying to prove. For Quine, such misgivings about the apparent threat of circularity are not relevant once we have stopped dreaming of deducing science from observations, that is, given up the vain doctrinal quest. For naturalized epistemology, there is no point in all the creative reconstruction and all the conceptual make-believe. The naturalistically oriented epistemologist wants to find out how the epistemological construction really proceeds. In some sense, this amounts to surrendering the epistemological burden to psychology. Again, a life-threatening move from the viewpoint of the ”pure” philosopher, who wants to keep philosophy clearly cut off from empirical knowledge.

2.2. The Fate of Epistemology and Normativity

For Quine, the project of epistemology is to tell the story of getting from stimulus to science[9]. Interacting with our environment, we learn the language of our fellow creatures, and construct a world view that is further refined by collective effort into a sophisticated scientific theory of the world. What happens between ”the meager input” and ”the torrential output” of our cognitive machineries is for the epistemologist to theorize about. The central metaphilosophical question now concerns the status of the epistemologist as a philosopher: is epistemology in its previous form eliminated, and will philosophers have to turn into experimental cognitive psychologists, brain scientists, neural network programmers, or something of the sort just to keep themselves in business?

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[8] Hempel’s (1991) paper traces some of the problems and historical changes in the empiricist criteria of cognitive significance.

[9] *From Stimulus to Science* is the title of Quine’s last book, where he characterizes and draws together various aspects of his systematic position.

Kornblith (1994a) interprets Quine as a radical proponent of the strong replacement thesis, according to which psychology straightforwardly replaces epistemology in much the same way that chemistry has replaced alchemy. In stating that epistemology, or something like it, simply falls into place as a chapter of psychology and hence of natural science, Quine (1969, p. 82) certainly seems to give support to such an eliminativist interpretation. Once again, however, a more careful reading of Quine reveals that this is not what he either recommends for others or proceeds to do himself. After all, since formulating his views on naturalized epistemology, Quine did not turn into an empirical researcher or an obsolete retired philosopher in his rocking chair, but continued actively practising philosophy, developing his views and arguing for them in philosophical journals and other publications of his chosen profession. This should already tell us something.

Instead of blunt elimination, Quinean naturalism actually proposes an active interplay between epistemology and the relevant parts of empirical science. According to Quine (*ibid*., p. 83), a conspicuous difference between old epistemology and the epistemological enterprise in this new psychological setting is that we can now make *free use of empirical psychology*. This does not suggest giving up epistemology, but bringing new freshness to philosophical discussions by allowing us to calibrate our arguments and abstract sketches of theory in light of the best available information provided by the constantly developing cognitive sciences. To close our eyes to recent developments in relevant empirical fields in the name of keeping philosophy ”pure” would from a naturalistic point of view mean simply engaging in bad and uninteresting philosophy. In fact, Carnap himself had already suggested that philosophers should work in close collaboration with the special sciences.[10]

It is in the interests of a more modest interpretation of the metaphilosophical implications of naturalized epistemology to note that Quine (1969, p. 83) also states that the newly conceived epistemology could still include something like the old rational reconstruction, to whatever degree such reconstruction is in fact possible. This is because imaginative constructions can afford hints of actual psychological processes in much the way that mechanical simulations can. Philosophical thought experiments can contribute to the formulation and refinement of empirical theory, and thus, there is also something for the empirical research to be gained from speculations practiced on the philosophical level of abstraction.

Quine himself clearly continues doing epistemology by studying the roots of reference. In his own holistic scenario of empiricist philosophy, the observation sentence functions as a ”foundational” link between language and theory on the one hand, and the external world on

[10] A similar rejection of pure philosophy had already been proposed, prior to Quine, by American pragmatists, especially Charles Peirce and John Dewey.

the other. The major novelty in contrast to the preceding forms of empiricism is that words and objects are not linked word by word, or even sentence by sentence, but in theoretically integrated clusters having the critical semantic mass to imply observation categoricals. The observation sentence is the cornerstone of semantics, evidence is verification, and epistemology becomes indistinguishable from semantics. The notions of language and theory are very closely interrelated: in learning a language we also learn a theory of the world together with its ontology, ideology, principles of categorization and individuation.

Even if we could successfully hold on to some form of conceptual autonomy for epistemology in its naturalized form, there is also the issue of normativity to consider. Many have thought that naturalism loses the normative element in epistemology, which in turn inevitably leads to the destruction of the whole pursuit in any meaningful form. Kim (1994, p. 41) for example states that our whole concept of knowledge is inseparably tied to that of justification, and that if justification drops out of epistemology, knowledge itself will also have to go. If we accept this, it would seem that naturalized epistemology could have nothing to do with knowledge, surely a strange and unwanted conclusion.

One strategy would be to bite the bullet, and say that our concepts, including that of knowledge, have their own developmental and evolutionary histories that do not in any way guarantee their continued success in light of later discoveries. This is the line that is often taken by the scientific realist, who insists that with the development of science, our earlier preconceptions may have to change or even be totally dismissed when exposed as erroneous[11]. So, the conclusion would be that if naturalism and knowledge don't mix, so much the worse for our conception of knowledge.

Another line would be to insist that it is pragmatically wise to adjust our norms in view of our conception of the facts. After all, *ought implies can*, and when we are talking about the justification of knowledge claims, we are not in general interested in the cognitive capacities of angels, bodhisattvas, or other supernatural beings, but in those of much more commonplace natural cognitive agents like ourselves. The structure and laws of our physical universe, including the functional organization of our own sensory surfaces and the neural wetware operating on the activation vectors constantly fed through them, set all kinds of biological restrictions on the *can* aspect. So here too, instead of elimination, we find an interplay of facts with norms. For adequate critical and normative evaluation of our own cognitive engineering, we need to set the empirical facts straight.

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[11] One famous example is Paul M. Churchland's (1981) treatment of the propositional attitudes inspired by Sellarsian scientific realism. For different versions of scientific realism, see e.g. Niiniluoto (1999).

2.3. Philosophy of Mind

One central area of contemporary philosophy where the demarcation line between philosophical and empirical knowledge has been actively and effectively blurred is the philosophy of mind. The field has for some time now been an agora for disciplines like cognitive psychology, neurology, and artificial intelligence for discussing many general and principled issues in the foundations and applications of the various cognitive sciences. This fact is also reflected in the publication of many interdisciplinary cognitive science journals as well as in the way that introductory textbooks and readers of philosophy of mind include references to a multitude of results and examples from the empirical side. In fact, the line between philosophy and other disciplines seems in some cases so hard to discern that this relatively new genre of philosophical writing could in itself be used as a motivation for the problematization of the nature and role of philosophical knowledge.

On the philosophical side, Quinean naturalism has clearly been a major contributor to the recent practice of undermining the disciplinary boundaries. Free use of the results of empirical psychology as well as other disciplines has been eagerly taken up by authors like Patricia Churchland (1986) or Daniel Dennett (1991), who are using their awareness of relevant research paradigms and results to make their philosophical points empirically more sophisticated and better justified. Actually, Dennett (cf. e.g. 1978 & 1987) is a fine example of a professional philosopher who not only takes Quine’s general recommendation about the free use of empirical knowledge seriously, but also shares other foundational philosophical assumptions with him. Quine’s naturalism, holistic empiricism and the critical analysis of meaning phenomena made it a lot easier for other philosophers to start actively paying attention to empirical knowledge.

On the empirical side, the interaction between philosophy of mind and the special sciences has been tremendously aided by developments in the various fields studying cognitive phenomena. This story has been acted out during the last half of the twentieth century, and aspects of it are chronicled e.g. in Gardner (1987). Philosophy of mind has many close links to other central areas of philosophy like metaphysics, ontology, epistemology, and philosophy of language. When the mind sciences started to pour out novel ideas and new results with an unprecedented volume, there was suddenly a massive amount of empirical knowledge directly relevant to many age-old philosophical questions floating around, just waiting to be noticed and used by philosophers.

Together, the empirical and philosophical sides have produced a large amount of relevant data for traditional philosophical issues and a metaphilosophical motivation for paying

close attention to it. The result has been a huge growth in the importance and productivity of the philosophy of mind. Consequently, the late twentieth century Anglo-American academic philosophy also experienced a strong shift of emphasis from the philosophy of language to that of the mind. According to Wagner & Warner's (1993) characterization, naturalism clearly acknowledges that the classical problems define the tradition of philosophy, and it seeks scientific solutions to those problems. This is something that sets it apart from some other metaphilosophical approaches like positivism, which held that the classical issues were in some way irrelevant or outmoded.

The motivation for the widespread celebration of ”the scientific attitude” is given (*ibid*., p. 10) by noting that

> Scientific discourse appears as an improvement on the confusion and cross purposes of other disciplines. Now add this to the demonstrated ability of science to correct opinions originating elsewhere – say, from philosophy or common sense. Then it becomes clear why one might elevate scientific rationality above other forms; why one might *hope* for an eventual scientific adjudication of all scientific questions. This is the fundamental appeal of naturalism: an endorsement of epistemic order and progress.

Of course, even if we can understand its motivation, the real value of ”the scientific attitude” for philosophy depends on the actual use it is being put to. We have already noted that there are many kinds of naturalists around, and nothing very spectacular is achieved philosophically by simply calling oneself a naturalist. Only too often, such labels are thrown around as mere rhetorical special effects.

The relation between philosophical and empirical knowledge is a difficult issue because philosophical questions are typically so abstract and general that they cannot be solved in any immediately obvious way by just looking at the empirical evidence. Indeed, if some question were solvable in such a straightforwardly empirical manner, this would be a good reason for *not* calling it philosophical. The fundamental questions about intentionality or consciousness in the philosophy of mind are also so far removed from empirical checkpoints and so sensitive to different interpretative schemes that we cannot antecedently and uncritically assume that science can ever produce answers that would make all philosophizing unnecessary. Perhaps it could turn out, as it might in the case of the analyticity issue or in the case of the realism vs. idealism debate, that there

just aren't any ways of solving the questions empirically. What remains is a conceptual space explored by philosophical thinking and argumentation.

2.4. Naturalism, Science, and the Reflective Equilibrium

The conceptual generality and the evidential distance from empirical control are what make the relations between philosophical and empirical knowledge so complex. A large part of philosophy has always been engaged in the attempt to identify the most general kinds or categories under which things fall, and in delineating the relations that hold among these categories (cf. e.g. Loux, 1998). In other ways too, philosophy typically deals with second- or higher order questions in contrast with issues situated in the spheres of common sense and the special sciences (cf. e.g. Rosenberg, 1984). As a result of such abstract-mindedness, philosophers are not interested in simply finding out facts about tables, chairs, and cats on mats that could easily be checked and kept under strict control by sensory experience. It is also worth noting that even Quine, the naturalist, is still very much involved with classical philosophical issues, and has his own arguments to offer e.g. concerning the metaphysical hierarchy reaching from concrete particulars through universals and propositions to modalities[12].

Since naturalism stresses the empirical nature of all our knowledge claims and offers a holistic view about the relation between philosophical and (other) empirical knowledge, it has to handle that relation with special care and delicate diplomacy in order to remain a viable movement. On the one hand, as a philosophical program, naturalism emphasizes the importance of *empirically informed* and *science-sensitive* philosophizing, while on the other, it is easily vulnerable to accusations of wild and uncontrolled speculation *without* empirical control (cf. Hacker, 1998). This double aspect constitutes a rather peculiar metaphilosophical predicament.

As we already noted, the abstract and general nature of philosophy makes reliance on empirical data in many cases of questionable value because on individual decisions our philosophical verdicts might go either way depending on the underlying framework of thought. Even so, in *some* cases considerations given to current scientific theories might tip the balance to a certain direction on the basis of general considerations of coherence and plausibility. Our philosophical views about the propositional nature of mental representation, for example, might be

[12] Quine accepts physical objects and sets (needed for mathematics) as the values of the bound variables within his regimented scientific world view. Properties are replaced by extensional classes, and propositions by eternal sentences or individual sentence tokens. As already noted, in the Quinean universe there is no form of higher metaphysical necessity above or beyond the natural one.

influenced by detailed findings made by the neural sciences. In the theory of knowledge too, such influence is to be expected. Quine (1998, pp. 664-665) takes normative epistemology to be a branch of engineering, and as a technology of truth-seeking, epistemology in its naturalized form does not jettison the normative and settle for the indiscriminate description of ongoing procedures. If we go with him, the normative in naturalized epistemology, as elsewhere in engineering, becomes descriptive when the terminal parameter is expressed.

Within the naturalistic position, the best conceptual strategy seems to be to aim at a *reflective equilibrium* (cf. e.g. Føllesdal, 1997), where philosophy pays close attention to (other) empirical fields. Philosophy should then try to calibrate its views and arguments according to scientific findings, where these have some relevance to the philosophical issues in question, and the potential of providing novel input to the discussions. Of course, the reflective equilibrium is not a one-way street, and philosophers remain free to evaluate the particular scientific practices from their own general point of view. Thus we see that naturalism does not have to amount to giving up the critical role of philosophy. In fact, the critical aspect produces qualitatively better results if the critics can be bothered to check the details and know their targets.

There are various components in the naturalistic reflective equilibrium as we have pictured it. One aspect comes from the philosophical tradition that provides a battery of issues and conceptual distinctions. This tradition largely defines the overall point of view of philosophers, and also constitutes their sense of historical continuity. Another component comes from the special sciences, or what are conventionally seen as more clearly empirical fields of knowledge. The practice of *thought experiments* could be listed as a third component of the philosophical activity available to the naturalist. In fact, these intuition-stretching testers have been very important in reflecting on the necessities and contingencies of our conceptual space. They have also been responsible for the most intensively discussed issues in the recent philosophical literature. We have had field linguists as radical translators, brains in a vat, Twin Earths, Chinese Rooms, and other strange scenarios constructed to test the limits and applicability of our conceptions in unusual surroundings. In one way or another, all these have participated in our active search for reflective equilibrium.

At the philosophical level, our grammatical and theoretical constructions get extrapolated to more and more abstract cognitive contexts, eventually leaving the immediate touch with observational basis far behind. In philosophy, as (elsewhere) in science, these activities ultimately aim at systematizing our conceptual scheme. Philosophers' interests are directed at ever more rarefied spheres, until finally, these become ends in themselves. The community of philosophers, naturalistic and otherwise, consists of those who find engaging in such abstract

activities gratifying in itself, without any promises of immediate payback other than the pleasures of contemplation. Philosophers keep the discussion alive and take care of the continuing diversity of conceptual creatures. In a naturalistic metaphor, they are the rangers of this intellectual territory.

3. Explaining Science: A Naturalist Approach

We shall in the later parts of this essay take a look at religion as an example of the contrast between philosophical knowledge and the kind of knowledge that is pursued in the special sciences – both in the natural sciences, such as neurophysiology, and in the humanities, such as cultural anthropology. Our discussion is intended as a case study focusing on the question of whether philosophy (in this case, philosophy of religion) can teach us something about its subject matter (in this case, religion) that cannot be taught by the various scientific disciplines investigating the same subject matter. If our answer to this question is affirmative, then the next questions are obvious: why, and how, is philosophical knowledge different from special-scientific knowledge? Addressing these questions is necessary if one wishes to say anything significant about the program of naturalism that we have so far examined on a more general epistemological and metaphilosophical level.

Before entering the topic of religion, we should, in order to be able to draw interesting analogies, briefly discuss the applications of naturalism within the philosophy of science. Our task then is to critically assess the viability of naturalism in our attempts to understand certain interesting features of human life in general, and in the study of religion in particular.

The Quinean rejection of aprioristic first philosophy might be interpreted as the slogan, ”Wherever science will lead, I will follow” (Keil & Schnädelbach, 2000, p. 22) – even though this slogan itself, as presumably any formulation of naturalism, is philosophical rather than simply scientific (see section 4.3 below). This maxim contains, *in nuce*, the naturalist’s central metaphilosophical ideas: there are no philosophical problems concerning reality, existence, truth, or knowledge prior to, or independently of, the various scientific problems to be encountered and resolved within the special-scientific disciplines themselves. It nicely captures Quine’s basic position, as well as, e.g., Wilfrid Sellars’s (1963) conception of science as the ”measure” of what is and of what is not.[13] Arthur Fine’s (1986/1996) ”natural ontological attitude” (NOA) can be

[13] Tuomela (1985) speaks about the *scientia mensura* thesis: best-explaining scientific theories are the measure of what there is. For critical reflections on Tuomela’s Sellarsian scientific realism, see Pihlström (1996a), ch. 4.6. For recent discussions of the varieties of naturalism in the philosophy of science, see several essays in Keil & Schnädelbach (2000) and Nannini & Sandkühler (2000). The ”culturalist” position upon which Herbert Schnädelbach’s (and partly other

regarded as an extreme example of naturalism in the philosophy of science. It is tempting to say that Fine's NOA, the view that science will take care of itself without needing help from any philosophical conceptualizations and interpretations, is where Quine's naturalistic repudiation of ”first philosophy” ultimately leads us – even though Quine may, in the end, leave more room for the autonomy of philosophy than Fine. As was noted above, he preserves several elements of traditional metaphysics in his philosophical system, seeking to explicate the broad categorial features of the world science reveals. On the other hand, Fine wants to disentangle himself from ”scientistic naturalization” and from any essentialist idea that science is a ”natural kind” or subject to universal laws (Fine, 1996, p. 177). It is not clear that Quine would be guilty of scientistic naturalization in this sense, although he would probably be willing to grant that the same natural (ultimately physical) laws that, according to our best theories, govern whatever takes place in the universe govern science itself as well. Fine, in any case, explicates the ”wherever science leads us” maxim in a pure form. It will be useful for us to take a somewhat closer look at his position.

Fine is famous for the critique of abductive defenses of scientific realism presented in his 1984 paper, ”The Natural Ontological Attitude” (reprinted in Fine, 1986/1996). In that paper and in many subsequent ones, he points out that realism – i.e., the view that scientific theories and hypothesis, even when they are about unobservable entities or processes, are true and false independently of our abilities to know their truth-value, and that science aims at truth about the mind- and theory-independent world – cannot be defended by means of an inference to the best explanation (that is, as the supposedly best explanation of our scientific practices) without begging the question against instrumentalist anti-realists, since the abductive defenders of realism simply assume that good explanatory hypotheses can or ought to be taken to be true. Nor does Fine accept any anti-realist (e.g., constructive empiricist, instrumentalist, or ”internal realist”)[14] interpretation of science, however. On the contrary, he wants to offer a deflated, ”no-theory” account of truth (*ibid*., p. 9) – and of the scientific pursuit of truth. There is no philosophically interesting relation between our theories and the world they are about (a relation labeled ”truth”) that should be referred to in a systematic interpretation of science. Both realist and anti-realist attempts to interpret science philosophically are, according to Fine, ”unnatural”. We should simply stop worrying about typical philosophical (essentialist, ahistoricist) questions concerning science, truth, reality, existence, and other notions. Instead, we ought to accept the ontological commitments of science (and of common

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recent critics' of naturalism, such as Geert Keil's) attack on naturalism is based is more thoroughly explicated in Schnädelbach (2000).

[14] For characterizations and critiques of these views, see Niiniluoto (1999). It should be noted, in particular, that Fine's critique of realism does not entail an acceptance of any ”epistemic” theory of truth, such as Hilary Putnam's one-time

sense) ”naturally”, without any extra-scientific philosophical justification or problematization. We should, that is, take science ”on its own terms”, without attempting to make sense of it philosophically.

Fine’s position in his 1996 postscript to the second edition of *The Shaky Game* (first published in 1986 and many of the articles earlier than that), is perhaps a bit more balanced than his earlier statements. He now does not seem to reject philosophy for good but only the sort of bad, worn-out philosophical questions that need not be asked as soon as we have adopted the relaxed and open-ended attitude of the science-sensitive NOAist. What he still regards as mistaken is the idea that we should ”add distinctively philosophical overlays to science in order to make sense of it” (*ibid*., p. 188). Presumably, any claim to ”philosophical knowledge” would, according to Fine, amount to such an ”overlay” that has no use in genuine science.

Fine’s NOA has, unsurprisingly, been attacked from various philosophical perspectives, especially by scientific realists.[15] The typical critique launched against it can be summarized thus: *either* the NOAist rejects philosophical questions about science altogether (in which case her or his position is not philosophically interesting and there is no reason for any realistically inclined philosopher to subscribe to it), *or* embraces some kind of scientific realism after all, precisely because the ontological commitments of our accepted scientific theories are to be taken at face value (in which case NOA provides no threat to realism at all and in fact turns out to be a philosophical interpretation of science, namely, a realistic one). Why, most critics seem to ask, shouldn’t scientific realism, which postulates a mind- and theory-independent reality ”out there” as the object of our scientific research, be our ”natural attitude” to science? We may find it necessary to modify such a realism;[16] even so, Fine’s arguments against realistic philosophy of science seem to be inconclusive.

Still, Fine has made an important point. It is not clear, at least not without further argument, that there is any specific *philosophical knowledge* to be achieved through traditional analysis of philosophical issues such as realism. It may be the case that all the knowledge we can legitimately hope to obtain is scientific knowledge and that our knowledge about science, insofar as it can be called knowledge at all, is scientific, too – not philosophical. Thus, Fine, like all naturalists, presents a challenge for those who believe in anything like ”philosophical knowledge”.

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account of truth in terms of idealized warranted assertibility. For further reflections on these discussions of truth and the varieties of realism, see Pihlström (1996a) and (1998).

[15] Among insightful recent critiques of Fine, see Musgrave (1989), Brown (1994, pp. 15 – 18), Kukla (1994), Abela (1996), Brandon (1997), Leplin (1997, pp. 173 – 177), and Niiniluoto (1999, pp. 18 – 20). Some of this criticism is discussed in Pihlström (1996b; reprinted in an enlargened form in Pihlström 1998, ch. 3). Most critics, with good reason, point out that Fine simply dismisses philosophical problems about science rather than arguing that we are justified in dismissing them.

His challenge is parallel to, and in a way even more extreme than, Quine's, even though he does not share the latter's physicalism.[17] Both appear to hold that insofar as realism, truth, existence (etc.) can be spoken about at all, they should be spoken about *within* science, not in any prior philosophy of science.

On the other hand, the defender of the possibility of philosophical knowledge may argue, against Fine, that we cannot have the kind of philosophical neutrality they minimalistically dream about. We always already stand on a philosophically committed ground. Thus, one cannot completely avoid the issue of realism, for example. If one takes the commitments of science at face value, or says, with Quine or Sellars, that science determines the correct ontology of our world, one is in a sense a scientific realist, postulating an independent, scientifically explainable reality. If, on the other hand, one declares that there is no ”world” out there for science to study, then one should rather be called an anti-realist. It is not always clear how Fine's or Quine's views should be classified in this respect.

What is more clear is that both Quine and Fine differ in some crucial respects from more traditional philosophical naturalists or physicalists like David Armstrong (1997). The latter's naturalism is not metaphilosophically as radical as the formers', since Armstrong thinks that general ontological questions, such as the question of whether there are universals instead of tropes or whether the world ultimately consists of states of affairs or not, ought to be decided by means of philosophical analysis prior to any scientific investigation. Still, science, according to Armstrong, ought to determine our ontology in the sense that it will decide *which* universals, if any, really exist. In this way, science is, again, the measure of what there is, although there are abstract and general philosophical issues underlying any specific scientific account of the world. We may say that Armstrong subscribes to ontological naturalism but not to anything like the ”natural ontological attitude” in Fine's sense. Nor is his naturalism metaphilosophically as holistic and empiricist as Quine's. Armstrong might be willing to say that we can *know*, in some philosophical though of course fallible and scientifically revisable manner, that, e.g., universals exist and are instatiated in states of affairs (that is, we can have philosophical knowledge about their existence). Still, insofar as the interpretation of Quine as a philosopher engaging in something like *metaphysica generalis* offered above is correct, one might suspect that the distance between Quine and Armstrong is not as great as it first seems. Of course, the former rejects the existence of properties and the latter

[16] Cf., e.g., the discussion of pragmatic realism in Pihlström (1996a) and (1998).
[17] See the discussion of Quine in sections 1 and 2 above. For another non-physicalist (indeed, ”postmodern”) but thoroughly deflationary and ”naturalized” conception of science, see Rouse (1996).

believes in universals – but that is a difference within their philosophical views, not merely or even primarily one concerning the status of such views.

It seems that there is no analogous role for philosophical knowledge to play in Fine's view. Instead, Fine tells us, philosophizing should not disturb the advancement of scientific knowledge. Despite its serious problems, the Finean attack on the possibility of philosophical knowledge about science serves as an illuminating background for the following discussion of the prospects of the naturalization of the field of inquiry known as religious studies. We shall return to NOA in due course.

4. Naturalized Study of Religion

The purpose of this section is to point out some interesting analogies between the ontological, epistemological and methodological varieties of naturalism we have already encountered, on the one hand, and certain philosophical background issues in the study of religion, on the other. It is possible to hold that both scientific and religious world-views are naturalistically explainable, in analogous if not identical ways, because both enable us to cope with the nature in which we live and of which we are a part. While naturalist and atheist positions are not particularly popular in contemporary theistically oriented philosophy of religion,[18] several naturalistic attempts to explain religious experiences and religiousity in general have been made within the disciplines of cognitive science, comparative religion, and cultural anthropology. Insofar as the naturalist proposal that empirical inquiry is relevant to our philosophical concerns is taken seriously, we should regard such explanations of religion as relevant to the philosophy of religion. Our investigation will reveal some problems, however, which are important not as reasons for rejecting naturalism but for testing it through this particular case study.

Matti Kamppinen's (1997, 2001) recent work can be used here as an example of naturalized, though anti-positivist, study of religion – which, it may be argued, unfortunately leaves too little room for a philosophical understanding of religion as religion.[19] Kamppinen's cognitivist

[18] Atheistic attacks against the rationality of theism, such as Tuomela's (1985), Nielsen's (1996), or Philipse's (2001), are not very impressive from the point of view of such rather sophisticated defenses of religion as "reformed epistemology" and "Wittgensteinian" language-game oriented philosophy of religion. This is not to say that the latter traditions are unproblematic. For a useful survey of contemporary Anglo-American philosophy of religion, see Koistinen (2000). Philosophy of religion itself, of course, is only a minor sub-branch of contemporary (analytic) philosophy, which on the whole is atheistically (materialistically) or at least agnostically oriented.

[19] We can imagine Wittgensteinian philosophers criticizing Kamppinen's approach on a similar basis. But here we should not be committed to any such philosophers' – e.g., D.Z. Phillips's – views, although we will have a reason to return to Wittgensteinian considerations below.

methodology, shared by, among many others, Lawson (1998) and Pyysiäinen (2001a, 2001b), is of course only one example of a naturalist, reductionist, and methodologically atheist trend of thought in this discipline (for various viewpoints that would be equally relevant, see the essays collected in Idinopoulos and Yonan, 1994; and in Idinopoulos and Wilson, 1998). Reductionist attempts to explain religion in terms of something that is not religion appear not only in the cognitivist paradigm but also, perhaps more usually, in social-scientific approaches (see Segal, 1994).

4.1. Reducing Religious World-Views to Cognitive Mechanisms

Kamppinen, together with other cognitivistically oriented scholars, tries to capture the specific sense of ”rationality” that can be found in religious world-views. He interprets religious conceptions of the world as ”models”,[20] ”structured internal representations of environments” (Kamppinen, 1997, p. 85), which help their subjects orientate in the world they live in and solve various problems they encounter in their lives. Religious models form a subset of ”cultural models”, and their ”hallmark” is their reference to ”superhuman powers or agents” (*ibid*.). ”Religious belief systems and institutions are cultural means of problem solving par excellence”, Kamppinen tells us (*ibid*., p. 88).

One may be tempted to ask already at this point whether the statement about reference to supernatural entities as the hallmark of religious models is intended as a definition of religion and, if so, whether an empirically informed naturalist ought to take it seriously as such. Not all religions necessarily postulate superhuman ontologies.[21] Be that as it may, Kamppinen goes on to argue, plausibly, that rationality often constitutes a challenge for our understanding of religion, as religious beliefs about superhuman agents seem to be flatly irrational from the point of view of our Western scientific rationality (see also *ibid*., pp. 96–97). Still, they ought to be ”incorporated into the cognitivist paradigm”, since superhuman entities ”are still entities, and faith as a foundation of belief is still a foundation of belief” (*ibid*., p. 87). Now, from the point of view of ”Wittgensteinian” philosophy of religion in particular, this is clearly a misunderstanding. Those philosophers, D.Z. Phillips most prominently, would probably reply that religion is primarily a matter of faith, not a matter of belief, and that it is totally inappropriate to talk about faith as a ”foundation of belief” in

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[20] Cf. here also Haaparanta (2000).

[21] It is at least possible that there could be a form of religious meditation without any ontological commitments. Buddhism might be a case in point, although its ontologies are usually supernaturalistic while being atheistic. On the problem of referring to superhuman beings in a definition of religion, see also Wiggins (1998), especially p. 139.

the sense in which ordinary beliefs have (e.g., perceptual) ”foundations”.[22] Moreover, Kamppinen's (*ibid*., p. 88) description of religious models as ”theoretical models” (i.e., models which reach beyond the observable world) is also at variance with Wittgensteinian and other views that take religion to be something quite non-theoretical – a cultural practice rather than a theoretical commitment to an ontological picture of the world.

Indeed, Kamppinen's (2001, p. 193) claim, intended as an introduction to the cognitivist approach in comparative religion, that ”religious thinking and doing is generic human functioning and does not differ from other modes of cognition and action” may, in the eyes of many people, appear to be a poor starting-point for any attempt to understand what religion is. Certainly religion must differ somehow from other modes of cognition and action, if there is anything special in it for us to understand. Otherwise, why should we study religious experiences at all, rather than everyday perceptual experiences? Why should we be interested in God or other supernatural entities as the objects of our propositional attitudes, rather than about tables and chairs – or electrons? Well, we may think, as Kamppinen does, that the *differentia specifica* of religious models of reality is their reference to supernatural powers. But this view is itself highly reductive, as it treats the objects of religious belief on the model of the ontology of the ordinary objects we encounter in the physical world, picturing the ”superhuman” world as a mysterious realm unknown to us, yet somehow arranged in a way analogous to the world we live in. It is unclear whether such objects of religious models could have any *religious* status in the lives of the people who, according to Kamppinen, postulate them. On the other hand, it is obvious that reductionists are not impressed by the (typically Wittgensteinian) argument that religious studies should begin from an acknowledgment of the specifically religious character of the objects studied: on the contrary, it is an open issue what ”religious” means, how it should be interpreted, and how its manifestations should be explained (Segal, 1994).

[22] Cf. again Koistinen's (2000) illuminating discussion of Phillips's and other relevant philosophers' views. Wittgensteinians would also undoubtedly resist Kamppinen's (2001, p. 200) claim that religious ideas depend on commonsense ontology because they violate some aspect of that ontology. Wittgenstein himself famously thought that there need not be any differences between a believer's and a non-believer's world-views. Cognitive study of religion is dominated by a religious or theological *realism* which is called into question in Wittgensteinian philosophy of religion and in some other traditions, too. According to this realistic picture, religious statements are *about* supernatural things (e.g., God), and they are true or false independently of what we happen to know, think, claim, or hope. Their truth-values depend only on how the world itself is arranged. As Koistinen (2000) shows, this is a widespread view in the philosophy of religion. Koistinen also reminds us that it is, however, probably inaccurate to characterize Wittgensteinians', such as Phillips's, views as anti-realistic: such philosophers of religion insist, against both realists and anti-realists, that it is misleading to consider religious uses of language according to the model of the non-religious use of (say) our ordinary physical language. God is ”real” according to these thinkers, though in a sense quite different from the reality of atoms or tables. Moreover, Phillips does not seem to be the naive fideist he is sometimes taken to be: religious practices, he tells us, are constantly influenced by non-religious ones, and there are certain culturally specific conditions of understanding that make religious experiences and world-views possible in a given cultural and historical

Kamppinen admits that the cognitivist approach is ”reductive”, because it views religious phenomena as ”related to more fundamental mechanisms”, seeking causal explanations in terms of origins (2001, pp. 193–194). He reminds us, though, that his reductionism is only epistemological, not ontological (*ibid*., p. 195).[23] In religious studies, a distinction is typically made between reductionists (including modern cognitivists but also more classical critics of religion to be found, say, in the Marxian and Freudian traditions), according to whom religion is ”nothing over and above” some more basic phenomenon of human life, and anti-reductionists (such as phenomenologists of religion), according to whom religion is somehow *sui generis*, never to be adequately accounted for in non-religious terms. The opposition is sometimes referred to the one between ”social scientists” and ”religionists” in the study of religion (cf., again, Idinopoulos and Yonan, 1994; and especially Segal, 1994).[24] The problem, in brief, is whether the first group of scholars can offer us any understanding of *religion* and whether the second group of scholars can really engage in *research* at all. This general problem related to the methodology of investigating religion cannot be dealt with here. Insofar as the study of religion is just a branch of the humanities along with all other branches (such as history, linguistics, literary criticism, etc.), the methodological problems its practitioners have to deal with are similar to the problems belonging to those other branches; the problem concerning the possibilities of understanding religions and religiousity from a non-religious, non-committed point of view is, however, unique to this particular branch of humanistic inquiry.[25]

”Non-religionists” typically try to understand religion naturalistically, as a naturally evolved social structure, based upon the human cognitive machinery, which includes claims that cannot be supported by science.[26] Causal, secular explanations of religious phenomena, according to many philosophers of religion, simply miss the point, however. They do not treat religious phenomena as religious at all (but as something else, apparently more basic), and thus they do not

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setting. The Christian culture, for instance, may not be eternally there. Religious ways of experiencing life as meaningful may disappear along with other kinds of cultural changes. (Cf. especially Phillips, 1986.)

[23] For more detailed comparisons between different notions of reduction relevant to religious studies, see Ryba (1994).

[24] In Segal’s (1998) more recent paper, an analogous opposition is observed between ”epistemological” and ”hermeneutic” perspectives on religion (in Richard Rorty’s controversial terms).

[25] These issues are, furthermore, connected with the problematic relation between the study of religion and theology, which we cannot pursue here.

[26] Even according to non-religionists, the natural-scientific world-view itself may leave room for a religious attitude to the world in terms of what Drees (1996, ch. 5) calls ”limit questions”, especially the question ”Why is there something rather than nothing?”. It is not clear, though, whether the mere possibility of asking such questions would be sufficient for a religious person. Aren’t they closer to philosophical than to religious or theological questions? In any case, from the point of view of naturalism, we should take a critical attitude to the various attempts to build bridges or encourage ”dialogue” between the naturalistic and the religious world-view (cf., e.g., McGrath 1998); as Drees (1996), among others, argues, if scientific results are interpreted correctly, they do not lend support to religious beliefs.

succeed in explaining what they were designed to explain.[27] In a recent paper, Leila Haaparanta puts the matter most succintly:

> If we seek a neurophysiological explanation of what happens when someone has a religious experience, the idea of a neural network may be of great value, provided that the networks of a computer are similar to the real neural networks studied by neuroscience. But this is not quite what we want. In addition, or instead, we want to give an illuminating characterization of what happens in one's mind when one has a particular experience. […] It is of course nice to hear that, like a human being, a computer can be sensitive to the various effects of the surrounding world and be able to develop complex, non-sequential reactions to them. However, the one who has a religious experience is hardly happy with the connectionist model of understanding. It may rather be the case that characterizing religious experience as ineffable is an answer which is more satisfying and, paradoxically, more illuminating for him or her. Moreover, that may also be the best way of revealing what is essential in that experience even for a disinterested outside observer. (Haaparanta, 2000, pp. 42–43.)

We may imagine Haaparanta's references to neural network models and connectionism to be replaced by references to any naturalized explanations of religious experiences. The ineffability and unexplainability of a religious experience may in fact be what is most ”natural” in such an experience for a religiously inclined person – or even, as Haaparanta suggests, for an outside observer, such as a religious studies scholar, interested in arriving at a satisfactory characterization of the experience.

Kamppinen's (if not all naturalists' and cognitivists') theorization seems to be vulnerable to this kind of critique. His views become even wilder, however, when he speculates about the possibility of constructing a ”religious robot” – an artificial agent that would subscribe not only to our ”naive physics” of the natural world (i.e., postulate tables, chairs, and other commonsense objects) but also to a ”naive physics of supranormal entities” (1997, p. 90). Here

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[27] It is a mystery how Kamppinen (2001, p. 194) can believe that cognitivism helps us overcome relativism by referring to the ”cognitive origins” of culturally conflicting (religious) beliefs and values. The problem of (cultural) relativism results from the culturally diverse interpretations of ”cognitive” (and ”rational”, and other notions). The claim that the problem is settled with reference to the supposedly universal cognitive origins of culturally divergent modes of thought can only be based on cultural imperialism, on an unargued assumption about the primacy of one's own (our) interpretation of ”cognitive”. We Western academics may take some phenomena to be ”universal”, while some others might not share our view. (These remarks should not be taken to defend relativism, though. It is one thing to defend relativism; it is a quite different thing to aim at spotting the weak points in Kamppinen's position, reminding him and

Kamppinen even cites William James as a support for a functional and pragmatic interpretation of the ”model of God” (*ibid*., p. 92). He seems to forget, however, that James – despite or perhaps rather because of his pragmatism – was one of those philosophers of religion who have been primarily interested in human beings' natural religious needs, not in any scientistic speculations about the (allegedly) culturally invariant cognitive models religious agents (including robots) might use.[28]

4.2. The Non-Explanatory Character of Religion

What is the relevance of our case study of the problems of cognitivist research of religion for the more general problem of naturalism and philosophical knowledge? The notion of explanation is certainly highly central here.

When representatives of the ”cognitivist school” claim that religious models exist ”in order to explain things, to make things intelligible” (Kamppinen, 1997, p. 94), one may argue that they either deliberately or by accident conflate scientific explanation with religious attempts to make things intelligible. Certainly religious world-views try to make the world intelligible to those who hold them. But they are hardly simply reducible to any scientific form of explanation.[29] Instead, religious ideas often deal with *unexplained* and *unexplainable* things and events – miracles, for instance. Ineffability and mysteriousness – the inapplicability of scientific canons of explanation – is what makes religious experiences religious in the first place. From a religious believer's standpoint, one offers a very simplistic and scientistic account of religion, if one supposes that religious ontologies are primarily meant to explain empirical events. Cognitivism may, from such a standpoint, amount to little more than a conflation of religion and science. Kamppinen's (2001, p. 194) discussion of the cognitive roots and cognitive contents of religious phenomena provides, of course, *one* perspective on religion, but a narrow one indeed. The critic can argue that such a perspective does not help us in understanding religious phenomena any more than an eliminatively physicalist conception of human agency, which conceptualizes actions as processes that are nothing but redistributions of certain microphysical states, helps us in understanding our actions *qua* actions (that is, as something distinguished from mere movements or behavior). These same remarks would

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other cognitivists that the problem of relativism is a philosophical problem, not to be thoroughly solved by naturalized, scientific means.)

[28] On James's philosophy of religion, see the interpretation given in Pihlström (1998).

[29] We cannot here deal with the complexities related to the structure of scientific explanation. For a brief historical survey with systematic ambitions, see Sintonen (1997), and cf. also other essays in the same volume.

apply, *mutatis mutandis*, to other naturalized and secular accounts of religion, including the most famous ones, such as Marx's and Freud's. We need not dwell on these classical theories here, however.

Naturalist reductionism has, of course, been criticized by numerous thinkers over the past few decades. Thus, the present discussion by no means aims at uniqueness. Instead of paraphrasing any of the well-known advocates of anti-reductionism, we may briefly compare what has been said here to David Wisdo's (1993) attack on the adequacy of reductionism in understanding religious belief. Wisdo, influenced by both pragmatism and the Wittgensteinian movement in the philosophy of religion, argues that religious beliefs and world-views cannot be evaluated as isolated claims that a subject (or a community) happens to hold about the world but must be seen as ”holistic interpretations about the meaning of life that enables us to make sense of our emotions and desires as well as our attitudes about suffering and death” (*ibid*., p. 5). Somehow our intellectual or even ”scientific” attempts to understand religion should be able to take this into account; yet, Kamppinen and other reductionists seem rather obviously to fail in this regard.[30]

Referring to Kierkegaard, James, and Wittgenstein, among others, Wisdo points out that religious beliefs, as tied to our personal cares and concerns, organize or structure ”the facts” that we take to belong to the world we live in, rather than picturing any novel facts (*ibid*., p. 45). From the point of view of religions themselves, no scientific ”organization” of the facts is required; religious experiences, for instance, require no further scientific explanation from the point of view of the believer (*ibid*., p. 118) – although, of course, there are specific (non-religious) cases in which the need for explanation is legitimately felt. Drawing on Wittgenstein's ”Remarks on Frazer's *The Golden Bough*”,[31] Wisdo seeks to show, furthermore, that the failure of reductionism is an *ethical* one rather than an epistemological one: although we may have to reject certain relativistic tendencies at work in Wittgensteinian thinkers like Winch (1958, 1972) or Phillips (1986), scientistic and reductionist approaches to religion offer an impoverished perspective on human life, blinding us to the profound significance that religion may have for us, the essential role it plays in (some) people's lives, or in ”the human form of life”, or in ”our natural history as human beings”, by seeking causal explanations in terms of the origins of beliefs and practices (see Wisdo, 1993, pp. 9, 113, 119–123, 129). Wisdo says:

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[30] ”The traditional tendency to treat one's religious beliefs as atomistic claims isolated from one's concerns about the meaning of one's life”, a tendency we should see Kamppinen and other reductionists as sharing, ”ignores the extent to which changes in a person's religious outlook tend to be 'unreasoned.'” (Wisdo, 1993, p. 51.) We may ask whether Wisdo himself here arrives at some kind of philosophical knowledge concerning the holistic and personal nature of religious beliefs. His holism, in any case, provides a natural point of comparison to the Quinean program – an extrapolation of holistic empiricism into non-scientific contexts.

> Our capacity to understand religious beliefs and rituals […] is not primarily a matter of our ability to explain their origins for the simple reason that such explanations could never account for the depth of our impression and the claim such forms of life make on us. What is needed to understand religion, rather, is […] [f]irst of all […] the kind of practical interpretative skills and capacities that enable us to describe the practices and rituals in a meaningful way. […] The task then is *not* to offer an explanation, but to assemble the facts in a certain way in order to *see* what kind of pattern might emerge […]. (*Ibid*., p. 121.)[32]

This task to ”see” the meaning of a pattern, to be able to structure or organize ”the facts” in a particular meaningful way, is, according to Wisdo, an ethical task, not simply a scientific or epistemic one (although the two dimensions of the task may be inseparable). Reductive naturalists tend to suppose that some privileged, scientifically rational organization of ”the facts” of the world is already at our disposal, overlooking the compelling fact that religious attitudes to life are relevant and interesting precisely because no such privileged non-religious organization of the facts exists. We might recall here Haaparanta’s (2000) above-cited reservations concerning the adequacy of any explanatory approach to religious experiences.

Hence, whatever the merits of Wisdo’s and other anti-reductionists contributions to the debate over the rationality of religious belief, we should take seriously their lesson concerning the ethical and personal significance of religious commitments. The reductionist’s attempt to find an allegedly more fundamental, naturalizable cognitive mechanism underlying religious beliefs, experiences and practices leads, from the ethical point of view, to a profound misunderstanding of the place of religion in the lives of the people for whom religion *is* religion in the first place. The reductionist thus in a sense violates a necessary condition for the possibility of making sense of religion. She or he can, then, hardly offer us any ”understanding” of religion, nor any (interesting) ”knowledge” about it – although she or he can certainly offer us sophisticated scientific knowledge about the functioning of our cognitive mechanisms. This, roughly, is the way in which the anti-reductionist can try to counter reductionists’ views.

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[31] See Wittgenstein (1979). For an extended discussion of this important though often neglected piece by Wittgenstein, see Clack (1999).

[32] Wisdo here discusses Wittgenstein’s notion of ”perspicuous representation”. There is no need to determine whether his reading of Wittgenstein (or of anyone else) is correct or not, since such interpretive questions make no difference to the argument we are concerned with.

4.3. Back to NOA: Seeking a Natural Attitude

Naturalism and reductionism can also be subjected to philosophical scrutiny on a more reflexive meta-level. Some light on the problem framework we have analyzed may be thrown through a return to Fine's NOA. We saw above that, according to the extreme naturalism Fine advocates, science should simply be investigated and explained scientifically, without recourse to any philosophical speculations or interpretations. Cognitivist researchers of religion add that religion should be explained scientifically, too. But why? If we carry naturalism into its natural extreme, following Fine, for instance, and are prepared to claim that there is only a scientific perspective available for us if we are willing to end up with a fair and reliable account of science, shouldn't we claim, equally ”naturalistically”, that religion should not be explained scientifically (since *that* would amount to a step outside the natural attitudes adopted within the religious practice itself) but *religiously*? Wouldn't a religious study of religion be the only fair option for the one who has adopted a natural ontological attitude? Shouldn't we, then, believe what religious practices ontologically postulate, without engaging in any ”prior philosophy” – or any prior science that seeks to understand or explain what religion is ”fundamentally” about or how it is generated by some allegedly more basic mechanisms?

James Robert Brown (1994, pp. 17–18) touches a similar issue in his simple but convincing argument against NOA. The theological analogy of NOA, he says, would be ”to take the Bible at face value”. While such an unreflective, ”natural” reading might be our initial reading (both in the case of science and of theology), it can hardly be our final one, since rival interpretations (of the Bible or of science) quickly arise. As Brown points out, both religious fundamentalists and atheists usually read the Bible realistically, disagreeing about the truth-value of (some of) its statements (and assuming, as realists do, that those statements do have truth-values independently of whether or not we can determine what those truth-values are). More liberal theologians are closer to anti-realism regarding science, as they are willing to interpret some significant religious or Biblical statements non-literally, symbolically or metaphorically. Now, NOA, either in the case of religion or in the case of science, does not lead us anywhere in such controversies. It is a conversation-stopper rather than a return to genuine ”naturalness”. Here, at least, the notion of ”naturalism” at work in the philosophy of science and elsewhere becomes rather elusive.

What, in particular, would it mean to naturalize the issue of realism in this context? For naturalist philosophers of science like Quine or Fine, this means, as we noted, that notions such as ”reality”, ”existence”, or ”truth” are internal to science rather than being the private property of

philosophers seeking to interpret science in an a priori fashion. But what about religion? We may distinguish between the opposition between realism and anti-realism (1) on the level of religious practices and language-use themselves, (2) on the level of theology that seeks to interpret those practices from an ”internal” point of view, attempting to render them significant to the people who engage in them, and (3) on the level of purportedly neutral comparative religion, or humanistic (secular) study of religion from an ”external” point of view, in which no religious or theological commitments are made (as, e.g., in the cognitivist paradigm). Now, which of these levels is the relevant one in the naturalization of the realism issue? It is not obvious that a naturalistic philosopher of science (or, more specifically, a naturalistic philosopher of science attempting to understand the study of religion) should simply adopt level (3), if she or he follows her or his naturalistic faith. It is equally plausible to suggest that the naturalization should occur on level (1), within the ”natural” practice of religion itself. If so, then the Wittgensteinian charge that the meaning of religious language and practices *qua* religious has been forgotten in a secular explanation becomes all the more pressing. To adopt level (3) for the framework of one’s naturalizing project is already to make a commitment, to choose a philosophical perspective. It is *not* simply to do science, as distinguished from all philosophical interpretations and problematizations. The kind of naturalism capable of justifying, say, level (3), presupposes philosophical commitments and *is* a philosophical commitment.

The problem we are facing might now be diagnozed as follows. Extreme naturalism, such as Fine’s NOA, does not provide any sufficiently *normative* framework for distinguishing any specific practice (or its ontological commitments) from any other, or for favoring any such practice (or its commitments) rather than another. We should follow ”good science” without pursuing ontological questions beyond the postulation of the entities that good science itself postulates (Fine, 1996, p. 184), but how are we to determine the criteria of good science? The question, ”why science, why not religion?”, as applied to our need to understand what religion is all about, any more than the realism question (as applied to either science or religion, or to the study of religion in theology or in comparative religion) cannot itself be answered in *scientific* terms, or in religious or theological ones, for that matter. There can be no purely scientific justification for a scientific study of religion, or for a realistic (or anti-realistic) interpretation of such a study; indeed, more precisely, any such justification is hardly stronger than a religious justification for a religious study of religion. What is required is a philosophical account of normative issues, especially methodological and axiological ones. As Brandon (1997) also argues, NOA may be a good attitude to adopt *within* science, as far as only science itself is concerned, but it is unable to tell us why we ought to prefer science to, say, astrology or religious fundamentalism. Nor can it settle more sophisticated science

vs. religion controversies, such as the ones between non-religionist naturalists (Drees, 1996) and those who think (like McGrath, 1998) that scientific theories may enrich people's religious outlooks even in our modern world.

Belief systems themselves (science, religion, and others) are essentially contingent in the sense that it is not necessary for us to adopt any particular system. We have found some reasons to think that it is only on a philosophical level that normative questions related to the justification of such systems can be adequately discussed. In this way, perhaps, a philosophical attitude enables us to distinguish between what is contingent or can be thought to be "otherwise" and what is (at least contextually) necessary, non-contingent.[33] If NOA, or any form of naturalism, is a *correct* conception of science, as it of course *may* be, then it is a philosophical conception. It is an *addition* to whatever the ontological postulations of scientific theories contain, although its main point is that no such (philosophical) addition should be made. As Geert Keil and Herbert Schnädelbach (2000, p. 35) point out in their introduction to a volume of essays on naturalism, the naturalist ends up with a dilemma resembling the situation in which Wittgenstein finds himself at *Tractatus* 6.53: on the one hand, insofar as everything that can (or should, according to naturalist principles) be said belongs to the totality of scientific propositions, there is no room for the naturalistic thesis itself, because it is not a scientific proposition but a philosophical one (an "addition", as it were); on the other hand, if this theses *is* added, its supporter has taken the crucial step beyond what she or he is entitled to claim according to the asserted thesis itself (see also Janich, 2000, p. 291 and *passim*).

Furthermore, the emergence of normativity as a pervasive feature of human life (most prominently in morality but elsewhere, too) need not be accounted for in any non-naturalist or supernaturalist manner, since we can see normativity simply as being grounded in our *human nature*, in the kind of creatures we are. But we need to reconsider what "human nature" amounts to: in order to accommodate normativity into our picture of the world and ourselves, we probably have to think of humans as *reflective*, autonomous, "self-legislative" beings along Kantian lines (cf. Korsgaard, 1996b), or perhaps along pragmatist lines, the roots of which lie in the Kantian conception of the primacy of practical reason in human affairs. *Qua* humans, but entirely naturally, we occupy "two standpoints": the one which pictures us as creatures of the natural world, to be fitted into the natural-scientific world-view, and the other which conceptualizes human life as ethically concerned, free and responsible (see especially Korsgaard, 1996a).

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[33] We are here crucially indebted to Leila Haaparanta's characterization of what may be called the "philosophical attitude" – a theme that has been discussed at length in the phenomenological tradition but appears, arguably, in traditional analytic philosophy, e.g. logical empiricism, as well (cf. section 1).

What we have arrived at amounts, presumably, to a *transcendental argument* against the plausibility of any strong, non- or post-philosophical naturalism such as NOA (even if we were not willing to adopt the explicitly Kantian route that philosophers like Korsgaard adopt when attempting to explain the emergence of normativity).[34] A normative framework provided by philosophy of science can, if our argument is correct, be shown to be a necessary condition for the possibility of any intelligible, reflexively justifiable decision to pursue science instead of some other human practice in relation to some particular problem of human life.[35] Similarly, reductionists seeking to understand religion through scientific explanations tend to overlook the need for a normative dimension in our assessments of people's religious outlooks. Yet, insofar as Quine, for example, still preserves a significant part of the traditional normative role of philosophy as a conceptual activity focusing on the most abstract and general elements of our web of belief, or the logical structure of that web, it is not obvious that his views are vulnerable to this critique. Thus, we should not reject either naturalism in general or Quinean naturalism in particular on the basis of the transcendental argument given here, although we should not expect Quineans to join our argument, either.[36]

In the case of religion, the situation is, however, somewhat more complex. Even though the proper scientific attitude obviously does not allow the results of interpretation to be determined by religious demands, it is quite clear that religious practices themselves are not strictly separable from the ”scientific” attempts of a community of scholars (theologians, exegets, people working within comparative religion, and others) to study – to interpret and reinterpret – religious texts, especially in monotheistic religions like Judaism, Christianity and Islam which are essentially based on sacred writings preserved in the community. Religion itself, then, requires theology, not only *vice versa*. Where would NOA leave us – in religion, theology, or the ”scientific” interpretive study of religious texts and practices? The point of this discussion has been that no satisfactory answer to this question is forthcoming on NOAist (or extremely naturalist) principles alone. We need normative criteria, which, it seems, can only be established (and debated) on philosophical grounds, though of course in close relation to the actual interpretive and explanatory work that is

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[34] For a survey of the debate over transcendental arguments in contemporary metaphysics and epistemology, see Pihlström (2000).

[35] Such a normative framework might be provided by pragmatism (see Pihlström, 1998), but this larger issue must be left open here.

[36] According to Quinean naturalism, ”reality” and ”truth” are internal to our language or theory. We may ask whether this view in effect differs at all from a view propounded in one of the *loci classici* of anti-reductionism, Peter Winch's 1964 paper, ”Understanding a Primitive Society”: ”What is real and what is unreal shows itself *in* the sense that language has. Further, both the distinction between the real and the unreal and the concept of agreement with reality themselves belong to our language.” (Winch, 1972, p. 12.) All depends on what ”our language” here signifies: the scientific language expressed in the regimented notation (Quine) or the everyday mixture of various language-games we engage in (Winch, Wittgenstein).

done in the special disciplines that those criteria are intended to govern. There is no end to normative questions concerning the criteria we use to assess that kind of work, or, indeed, our criteria of assessment themselves.

There is undoubtedly a sense in which, say, Wittgensteinian anti-reductionist accounts of religion can be ”naturalistic”. As Wittgenstein (1979) put it in his remarks on Frazer, in some cases we can only *describe* and say, ”This is what human life is like.” In such cases we are, for instance, describing ”the given” reactions in a religious ritual (Clack, 1999, p. 87), observing the philosophical relevance of the ”physiognomy” of the ritual rather than giving any causal or genetic explanation of why it is what it is (*ibid*., p. 143).[37] Thus, also a non-scientistic account of religion can be naturalistic in the sense of rooting religion firmly in human nature, investigating ”very general facts of nature” (*ibid*., p. 156) or ”the natural capacities of human beings” (*ibid*., p. 157).[38] The big issue here is where to stop, where one's bedrock lies, where no further explanation is possible. For Wittgensteinian philosophers of religion, the bedrock or the unexplained given lies in our ritual practices themselves, the reactions experienced in them, instead of any allegedly more fundamental causal (e.g., psychological, cognitive, or historical) developments or regularities. The former, not the latter, are for such philosophers the relevant, interesting, ”general facts of nature”. The problem with NOA is the one of offering normative criteria to enable us to judge claims about the priorities of such ”natural” givens.

One interesting difference between the Wittgensteinian and the cognitivist-reductionist perspectives might be that whereas the latter is merely concerned with the actual data revealing mankind's religious practices, the former is primarily concerned with the *possibilities* of religious rituals (cf. *ibid*., p. 100; see also Wittgenstein, 1953, I, § 90). Critical comparisons between such research programs can hardly be made on a pure NOAist basis. There is no such methodological purity to be achieved, no neutral place to stand without philosophical commitments.

4.4. The Importance of Phenomenology

One may, surely, view religion as a naturally produced macro-level phenomenon, generated by cognitive and perhaps ultimately physical mechanisms. Such a thoroughly naturalized picture of

[37] It is useful to note here, as Clack (1999, ch. 3, especially pp. 47–50) does, that from the Wittgensteinian point of view we should not look for any essence of ”belief” or ”description” but treat these as family-resemblance notions, thus giving up simplifying interpretations of Wittgenstein's views on religion and rituals as ”expressivist” or ”non-descriptivist”.

religion may leave some room for controversies that we have not been able to pursue in this context, e.g. for a discussion of whether the currently popular notions of emergence and supervenience, suitably defined, might be applicable to this particular macro-level construct. Yet, if the remarks presented above are even close to the point, it is doubtful whether any thorougly naturalized, special-scientific account of what religion amounts to really helps us in understanding religion as religion – that is, in religious terms.[39]

In order to gain a specifically philosophical understanding of religion we may be tempted to adopt the perspective of *phenomenology* – not, however, exactly in the sense in which Kamppinen recommends it. Kamppinen urges that modern cognitive study of religion ”can profit from Husserlian phenomenology, since one of the leading questions in cognitive science is how cognitive mechanisms affect the ways in which the world appears to us” (2001, p. 200). However, in cognitive science this ”how” question is typically transformed into a quasi-empirical question (”How is consciousness possible?”, ”How are *qualia* possible?”, and so on), to which an empirical or scientific answer is supposedly needed (cf. section 2 above). It is implied that it is somehow mysterious, yet hopefully scientifically explainable (in the future), that we are conscious or that we have experiences.[40] Similarly, cognitivist researchers of religion seem to seek scientific explanations of otherwise mysterious religious phenomena.

We might, however, propose to interpret phenomenology *transcendentally*, asking *how* religion is possible as religion, as the kind of entirely natural human practice we know it to be – without attempting to reduce it to anything else. This, roughly, is how the school known as ”phenomenology of religion” has expressed its program (though its representatives may not always have explicitly used the transcendental terminology which can be traced back to Kant). No straightforwardly scientific answers, either neurophysiological or anthropological, to such a transcendental question would then be satisfactory. What would be needed is, from the phenomenologists' viewpoint, a religious answer (such an answer would at least be the only one that could satisfy a convinced believer) – or, insofar as we are not believers, a philosophical account of the practice we are attempting to understand ”in its own terms”, that is, in a manner not totally

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[38] Cf. also Clack's (1999, pp. 148, 154–155) reference to the physiognomy of a rite as its ”inner nature” and to the idea that ”the nature of religion mirrors the nature of man”.

[39] Even independently of the anomalies of scientific reductionism, it is not entirely clear that we *could* understand religion *philosophically* but ”in religious terms”, as religion. Cf. here Hertzberg's (2000) profound reflection on the question of whether a non-believer can make religiously relevant statements, say, judge a believer's views as superstitious.

[40] For an interesting recent criticism of mainstream philosophy of mind and cognitive science, see Putnam (1999). Putnam's attack on Jaegwon Kim's physicalism may also be applicable against Kamppinen's (2001, p. 204) suggestion that there can be pre-cultural, cognitive mechanisms ”subserving the processing of meanings”. It is hardly intelligible that any understanding of religious phenomena as religious phenomena could be achieved by referring to such supposedly non-cultural processes underlying our culturally developed cognitive capacities.

opposed to the practitioners' own ways of making sense of what they are engaging in. The transcendental meaning of the phenomenological question Kamppinen takes up appears to be lost in the quasi-empirical and disengaged cognitivist paradigm.[41] It is lost as desperately as all normative questions are lost in the NOAist's minimalist paradise.

Indeed, the kind of phenomenology that Kamppinen subscribes to is perhaps not adequately distinguished from the "natural attitude" that should be called into question in a properly transcendental phenomenological method. The self-styled phenomenological attitude that may be employed in reductive, cognitive studies of religiousity may be a natural attitude in disguise. Husserl's (1936) phenomenological critique of naturalism and reductionism is, then, as relevant today as it ever was. So are, among other sources, Wittgenstein's (1953, 1979) and Winch's (1958, 1972) similarly oriented anti-reductionist approaches, although we should not, of course, accept their arguments uncritically, either.

Kamppinen's and other cognitivists' basic picture can now be summarily stated as follows. There is the world out there, and there is a way the world is independently of us. Extreme scientistic reductionisms regarding our picture of the world should be rejected: naive physics, the conceptual scheme postulating tables and chairs and other commonsensical objects and their interactions, is (approximately) true, but naive physics of supernatural entities is probably false (from our science-sensitive point of view, which we take to be rational). However, supernatural beliefs can be seen as "models" with their own specific sort of rationality. In order to gain such insight, we need phenomenology (though not in the transcendental sense). Whatever rationality religious beliefs may possess, they are ultimately inferior to the truly rational scientific theories that enable us to locate the culturally invariant cognitive mechanisms underlying all supposedly religious rationalities.

But, if the argument developed above is plausible, such an approach, despite its high scientific value, cannot provide us with philosophical knowledge or understanding of religious thought or practice. Remaining inside the "natural attitude", it only offers us scientific knowledge and scientific explanations from an external, non-religious perspective, a perspective from which the *inner meaning* of religious practices can hardly be revealed. It is doubtful whether religious phenomena are thereby "understood", and it is equally doubtful whether any critical comparisons between, say, religion and science can be carried out on such a basis. What we might propose, then, in contrast to cognitivists and other reductionists, is an account of philosophical knowledge about

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[41] Furthermore, the phenomenologist might argue, against Kamppinen, that a transcendental investigation of how the world is experienced by us can only be conducted on an *idealistic* basis, by rejecting the naive realism assumed in the cognitivist paradigm. For an account of phenomenology as a transcendentally idealistic epistemology, see, e.g., Pietersma (2000). These wider metaphysical and metaepistemological issues need not concern us here.

religion as something like transcendental knowledge concerning the preconditions of certain kinds of experiences that some of us humans naturally seem to have within certain historically rich traditions within which certain texts are constantly read, studied, interpreted, and (re)produced. We are now in a position to conclude that such transcendental knowledge cannot be achieved by mere scientific explanation, although we need not assume any sharp, historically unchanging contrast between the scientific and the philosophical perspectives. Truly philosophical understanding of religious phenomena ought to construe those phenomena as religious in the first place. To study religiousity on the basis of, say, ”methodological atheism” (cf. Pyysiäinen, 2001b), is already to make a philosophical commitment; it is not clear that such a methodological starting-point can be sharply distinguished from atheism *tout court* (see also Wiebe, 1994, p. 112). Certainly it is not a neutral starting-point that one may embrace irrespective of any philosophical problems.

Thus, purely secular explanations of religious phenomena may be criticized (though not excluded), not as false but as irrelevant, even though a secular *element* in our understanding of the development of religious world-views cannot be given up altogether. The interesting and compelling task we are invited to work on is the one of making room for *both* secular, scientific explanations *and* attempts to understand religious ways of thinking ”from within” the practices that make them possible.[42]

5. Concluding Remarks

None of this, of course, can be used in defending the truth of any particular religious idea. We should *not* embrace the religious counterpart of NOA, the view that a religious account of religion would be sufficient or that we could simply take the Bible (or some other religious text) at face value, any more than we should embrace NOA as applied to science. We need philosophy, the pursuit of philosophical knowledge, in our attempts to understand both science and religion, or, more specifically, in our attempts to inquire into the prospects (and limits) of such efforts of understanding. The transcendental philosopher of religion – as well as the phenomenologist – is concerned with the *meaning* of religious ideas and belief systems in the contexts in which such meaning is possible. Although it is impossible to discuss the issue further here, one may defend the

[42] It remains to be discussed whether this view leads to a dichotomy between ”explanation” and ”understanding” – for example, in the sense in which it is defended in post-Wittgensteinian literature on the methods of the social sciences (e.g., Winch, 1958). If so, ”philosophical knowledge” would probably belong to the side of understanding; it would be hermeneutical and normatively structured rather than causally explanatory or purely descriptive. But we should not

interpretation that Wittgensteinian philosophy of religion is also transcendental in this sense. For instance, Wisdo (1993, p. 123) explicitly speaks, using a Kantian formulation, about the ”conditions for the possibility of understanding religion”. If there is any philosophical knowledge, it concerns, presumably, such conditions rather than any specific objects of understanding.[43]

Similarly, *mutatis mutandis*, any philosopher of science attempting to understand the nature of scientific methods and the rationality of scientific inquiry (and thereby the possibility of naturalizing perennial epistemological issues) can be described as a transcendental philosopher in this loose sense. If we are prepared to employ such Kantian notions in our reaction to the naturalism debate, we do have some room for ”philosophical knowledge” in our metaphilosophical scheme. Nothing in our argument shows that the Quinean project of avoiding ”first philosophy” could not be reinterpreted in such a manner as well.

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perhaps build too high walls between these conceptual vocabularies. Arguably, the explanation vs. understanding contrast is too simple to separate, for instance, reductionists and religionists in comparative religion (cf. Segal, 1994).

[43] Naturalized study of religion, which we have studied here at some length, is of course only one possible example. Another might be Kusch's (1995, 1996) naturalized, sociological account of philosophical (and not just scientific) knowledge. Kusch (1995) gives as his example a detailed case study of the psychologism vs. antipsychologism debate in German philosophy since the 1880s (in which the latter camp, led by Frege and Husserl, won the battle). According to Kusch, this sociological reconstruction of a philosophical dispute, adopting the sociology of scientific knowledge as its model, is not external to philosophy but ”*potentially* made of the very stuff of which the central philosophical questions are made”, ”an eminently philosophical project” – especially since it questions the conditions for the possibility of a philosophical issue (*ibid*., p. 23). Hence, it even bears some resemblance to a transcendental philosophical undertaking, albeit a naturalized one, which is as prepared to employ empirical material as any Quinean naturalism. In comparison to Kusch, a less sociologically and more cognitivistically oriented approach to philosophical knowledge and the possibility of progress in philosophy is taken by Smith (1988a, 1988b), who puts forward the highly controversial thesis that philosophy is capable of cognitive progress and correspondence truth (or truthlikeness) in a manner resembling the sciences.

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