

Quine and Davidson on Language, Thought and Reality

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Logical pragmatism

This chapter provides a general introduction to Quine and Davidson. The first two sections are devoted to the historical context. I shall argue that the philosophical roots of their work are two-fold, namely formal logic and logical positivism on the one hand, American pragmatism and behaviourism on the other. It is not my ambition, however, to trace the details of actual historical influence. For my purposes it suffices to show that Quine and Davidson combine problems and methods bequeathed by logical positivism with important pragmatist themes, and that they can profitably be labelled as logical pragmatists. Sections 3 and 4 sketch the main features, respectively, of Quine's and Davidson's work, and highlight some important similarities and differences. The final section argues that their philosophies culminate in a philosophical anthropology, a conception of human behaviour in general, and of linguistic behaviour in particular.

1 The impact of logical positivism

Quine was born in 1908. He took his B.A. from Oberlin College and entered Harvard as a graduate in 1930. With the exception of several prolonged visits to other universities, he stayed there until his death in 2000. Davidson, born in 1917, was Quine's pupil at Harvard; he later held posts at Stanford, Rockefeller, Chicago and Berkeley.

Quine initially majored in mathematics. At Harvard, under the guidance of A. N. Whitehead, C. I. Lewis and Samuel Sheffer, he specialized in the function-theoretic logic invented by Frege and Russell. In 1933 he visited Vienna, Prague and Warsaw. This European tour had a lasting impact on him (*TML* 92–108). In Warsaw he became acquainted with the

Polish school of logic, and in particular with Alfred Tarski, whose work in formal semantics has exerted a tremendous influence, not least because of its impact on Quine and Davidson. In two books and numerous articles since 1933, Quine has made important contributions to the technical side of formal logic, notably by developing an alternative to the standard Zermelo-Fraenkel formulation of set-theory (see *FLPV* ch. V).

Quine's philosophical reputation rests mainly on the way in which he brings formal logic to bear on non-technical questions. Unlike many other analytic philosophers, he uses formal logic not just as a tool for the dissection of concepts and the paraphrase of propositions, but as the starting-point for substantial doctrines, as is evident from the title of his first collection of philosophical essays: *From a Logical Point of View* (1953). In this he was influenced by Russell and by the logical positivists, whom he encountered in Vienna and Prague.

The logical positivists were philosopher-scientists who aimed to develop a 'consistent empiricism'. They agreed with British empiricism and Mach that all of human knowledge is based on experience, but tried to defend this idea in a more cogent way, with the help of modern logic. They employed logical rather than psychological analysis to identify the elements of experience. Moreover, they invoked Wittgenstein's *Tractatus* to account for the necessity of logic and mathematics, without reducing it to empirical generality (Mill), lapsing into Platonism (Frege) or admitting synthetic a priori truths (Kant). All necessary propositions, they argued, are analytic, that is, true solely in virtue of the meanings of their constituent words. The logical positivists condemned metaphysics as meaningless, because it consists neither of a posteriori statements of fact – like empirical science – nor of analytic propositions that explicate the meaning of words – like logic and mathematics. Legitimate philosophy boils down to 'the logic of science' (Carnap 1937: 279). Its task is the linguistic analysis of those propositions which alone are strictly speaking meaningful, namely those of science. The ultimate aim is to vindicate empiricism by means of reductive analysis. The theoretical terms of science are defined through a more primitive observational vocabulary, and this makes it possible to translate all scientific theories into statements about what is given in experience.

Quine first came to fame in 1951 through his article 'Two Dogmas of Empiricism', an off-spring of discussions with Carnap and Tarski in 1940 (see *WO* 67n; Creath 1990: 294–300). 'Two Dogmas' vigorously attacked the two pillars of the logical positivists' conception of philosophy, namely the

distinction between analytic and synthetic propositions and the project of reductive analysis. As a result, Quine is often seen as the most sophisticated and relentless critic of logical positivism. Nevertheless, he wrote of Carnap, the most eminent logical positivist: 'I was very much his disciple for six years. In later years his views went on evolving, and so did mine, in divergent ways. But even where we disagreed, he was still setting the theme; the line of my thought was largely determined by problems that I felt his position presented' (WP 41). Furthermore, logical positivism was not just a spring-board for Quine, he also agreed with many of its fundamental tenets (Hacker 1996b: 7–8):

- I. Like the logical positivists, Quine is an empiricist in both epistemology and semantics: sensory experience provides not just the evidence on which our beliefs rest, it also endows our language with its meaning: 'whatever evidence there is for science is sensory evidence', and 'all inculcation of meaning of words must rest ultimately on sensory evidence' (OR 75; see *TT* ch. 7). However, just as the logical positivists had tried to improve on Hume and Mach, Quine tried to improve on their version of empiricism.
- II. Quine does not accept the positivists' principle of verification, according to which the meaning of a sentence is determined by the method of confirming or infirming it. However, this is only because of his epistemic holism, according to which confirming or infirming evidence can be specified not for individual statements, but only for larger 'blocks of theory'. Subject to this holistic caveat, Quine accepts the verificationist doctrine that meaning is determined by empirical evidence (see chapter 6, section 1 below).
- III. Like the philosopher-scientists of the Vienna Circle, Quine espouses a form of scientism. Although scientism has wider cultural implications, it is in the first instance an epistemological thesis. It holds that science is the final arbiter of all knowledge claims. More specifically, the 'hard' sciences – the mathematical and natural sciences – not only yield our best explanation of physical reality; they comprise all of human knowledge. At the very least, they constitute the paradigm of human knowledge, and hence should be emulated by all other cognitive disciplines, including philosophy.
- IV. The Vienna Circle was committed to the 'unity of science', the idea that all scientific disciplines, including the social sciences, can be unified in a single system, the foundations of which are provided by physics. This ideal went hand in hand with reductionism, the idea that all cognitively significant propositions are analysable into an array of

basic propositions or ‘protocol-sentences’ about what is ‘given’ in experience. Quine repudiates reductionism, the idea that individual propositions are synonymous with and hence translatable into constructions from such basic propositions. But he holds on to the idea that physics is the master science: it gives us the fundamental description of reality to which all other sciences must approximate. He also retains the idea that simple empirical statements, he calls them ‘observation sentences’, provide the foundations of both knowledge and linguistic meaning (OR 87–8; PL 8; PT 4–5). Unlike the phenomenologists in the Circle, led by Schlick, he denies that these sentences are about sense-data; but in this he sides with the physicalists, led by Neurath. Quine’s observation sentences concern physical rather than mental phenomena; although, as we shall see, their content is given by neural stimulations rather than macroscopic physical objects and events.

- V. Quine shared the Circle’s anti-Platonist distaste for ‘abstract entities’ and the nominalist preference for austere ‘desert landscapes’ (FLPV 4). Although he came to accept the existence of certain abstract entities, his philosophy is shaped by a preference for nominalism. Abstract entities are admitted into one’s ontology only if they are absolutely indispensable for respectable science.

As a result of the rise of Nazism, most members of the Vienna Circle emigrated to the USA. By the forties, their views had achieved the status of orthodoxy. It is probably no more than mild hyperbole, therefore, when Davidson states that he got through graduate school by reading Feigl’s and Sellars’ anthology of positivist writings (EAE 261). Logical positivism provides the essential background to Davidson’s philosophical endeavours, but by way of opposition as much as by way of inspiration. While his style of philosophizing and the analytical tools he employs are influenced by logical positivism, he does not subscribe to any of the positivistic articles of faith mentioned above.

Like Quine, Davidson follows the example of the logical positivists in his method of philosophical analysis. Whereas Wittgenstein and so-called ordinary language philosophy sought to clarify philosophically troublesome expressions by describing their ordinary use, Davidson relies heavily, though not exclusively, on analysing them in the idiom of formal logic. Nevertheless, his attitude towards formal logic is significantly different. Along with Frege, Russell, Tarski and the logical positivists, Quine is an exponent of what has come to be known as ideal language philosophy. This tradition holds that natural languages suffer

from various logical defects (ambiguity, vagueness, referential failure, category-confusions), and that they must therefore be replaced by an ideal language – an interpreted logical calculus – at least for the purpose of philosophical and scientific inquiry.

Davidson, by contrast, has been the most eminent champion of a theory of meaning for natural languages. The immediate roots of this project lie in the logical semantics of Tarski and Carnap. Under the influence of Tarski's work on truth, Carnap came to conclude that the notion of meaning could be elucidated through the idea of truth-conditions (1956: 10). Unlike Tarski and Carnap, however, the languages Davidson is interested in are natural rather than artificial. In this respect, he stands in the tradition not of ideal language philosophy, but of the *Tractatus* (see Baker and Hacker 1984, ch. 1, 140–53; Smart 1986). Unlike its inventors, the early Wittgenstein regarded Frege's and Russell's new logic not as an ideal language which avoids the shortcomings of ordinary language, but as indicating the underlying logical form that sentences in the vernacular possessed all along. Just as the *Tractatus* maintains that the depth-structure of ordinary language is given by Russellian logic, Davidson maintains that it is given by a Tarskian truth-theory.

Contrary to received wisdom, therefore, neither the early Wittgenstein nor Davidson are strictly speaking ideal language philosophers. In explicit opposition to Quine, Davidson aims to bring out the 'metaphysics implicit in natural language'. He is interested not in 'improving on natural language, but in understanding it'. Alluding to a simile of Wittgenstein, he describes 'the language of science not as a substitute for our present language, but as a suburb of it' (*ITI* 203; *RQE* 172, 176). Formal logic is philosophically important because it reveals the underlying structure of natural languages.

As regards matters of content, Davidson has distanced himself not just from logical positivism but also from empiricism altogether. His formal semantics is not based on verificationism, nor does it rely on sensory evidence. He also rejects scientism, mainly because his philosophy of mind is inimical to the unity of science. The logical positivists fervently opposed the idea, held by the hermeneutic tradition, that there is a methodological difference between the natural sciences on the one hand, the psychological, social and historical sciences (*Geisteswissenschaften*) on the other. Moreover, the physicalists among them held that mental statements could be reduced to, that is, translated into, physical statements either about overt behaviour or about neurophysiological events. Both of these claims

are direct implications of the unity of science, and both are vigorously attacked in Davidson's philosophy of mind (PAV 54).

On the other hand, some doctrinal points of contact remain. While Davidson does not subscribe to nominalism, he follows logical positivism and Quine in his predilection for purely extensional languages like the first-order predicate calculus. Furthermore, Davidson's philosophy of mind combines a conceptual dualism with a monistic physicalist ontology. Although we *talk about* mental events and human actions in terms that cannot be reduced to physics, these events and actions *are* ultimately physical events.

2 The legacy of American pragmatism

The impact on Quine and Davidson of American pragmatism is more diffuse than that of logical positivism. Pragmatism was founded by C. S. Peirce, popularized by William James, and further developed by John Dewey and G. H. Mead. The demise of German idealism in the middle of the nineteenth century sparked off various intellectual trends that tried to overcome religious and metaphysical mystery-mongering by stressing the importance of human practice. Pragmatism was the Anglo-Saxon version of this move from the Absolute to action. It differed from its continental cousins – Marxism, Existentialism, hermeneutics – in its empiricist and utilitarian tendencies, and in its association with natural science in general, and with Darwinism in particular. As regards Quine and Davidson, four pragmatist ideas are important:

Anti-foundationalism: The Cartesian ideal of certainty is misguided. Our theories should aspire not to indubitable foundations, but to fallible conjectures with maximum explanatory power.

Instrumentalism: Knowledge is not the passive mirroring of a mind-independent reality, but the result of an active process of inquiry. Our concepts and beliefs are instruments for the explanation and prediction of experience. Like human practice in general, the process of inquiry is essentially one of communication.

Verificationism: The content of a concept or belief is determined by the experiential consequences we would expect our actions to have if the concept applied or the belief were true. For example, to claim of the liquid in a flask that it is an acid is to claim, *inter alia*, that the action of placing a blue litmus paper in the flask would have a certain result, namely that of turning the litmus paper red. By this

token, the meaning of a word like 'acid' consists of the 'conceivable experimental phenomena' implied by its affirmation or denial (Peirce 1934: 273).

Non-realist accounts of truth: According to Peirce, truth is 'the opinion which is fated to be ultimately agreed to by all who investigate' (1934: 268). According to James, a belief is true if it is expedient for us to believe it (1978: 106). Both accounts make truth partly dependent not on how things are, but on the beliefs and requirements of human beings.

Quine described his position as pragmatist in *From a Logical Point of View* (16–19, 20, 44–6, 79), but the term all but disappears in his subsequent writings. There is some reason to believe that this is no coincidence, but marks a shift from a radically pragmatist or instrumentalist to a more realist account of knowledge. Moreover, Quine later characterized pragmatism simply as a strand of empiricism, and states that he had not read widely in pragmatism before giving his Dewey Lectures in 1968 (PPE 23; CBG 292).

On the other hand, Quine did not have to read widely in pragmatism to be influenced by ideas which are distinctly pragmatist rather than generally empiricist, since such ideas were transmitted by his teacher C. I. Lewis. Quine continues to stress even in his later writings that the formation of our beliefs and theories is shaped primarily not by brute facts or experience, but by 'pragmatic' considerations, that is, considerations of predictive power and cognitive efficacy. Some pragmatists insisted that our theories about the world should be subservient to the aims and requirements of our activities. Quine's conception of knowledge is not *utilitarian* in this way (LAP 119). But it is *instrumentalist*. He holds that our theories 'are almost completely a matter of human creativity – creativity to the purpose, however, of matching up with the neural input' (PLSP 50–1; see TT 2; WO 17–20; PT 14–15).

'Owing something to pragmatism is not one of my obsessions', Davidson avers. At the same time, he recognizes a direct debt to the pragmatism of Quine and Lewis, and he subscribes to many ideas associated with pragmatism (PAV 49, see also 43). James (1978: 238), in particular, anticipated Quine's and Davidson's holistic view that our beliefs cannot be assessed individually, but only as part of a web of other beliefs. Furthermore, Quine advocates a version of naturalism, an idea which he traces to Dewey and Peirce (OR 26–9; PPE 35–7). This historical claim is problematic, since both the idea and the label go back at least to

nineteenth-century physiological naturalists like Czolbe. But it is justified in one important respect. From its very inception, pragmatism rejected the Cartesian idea that the findings of natural science require a more certain foundation, notably in our infallible knowledge of a private mental realm. This anti-foundationalism unites classical pragmatism not just with Quine and Davidson, but also with other contemporary proponents of pragmatist ideas such as Hilary Putnam, Susan Haack and Richard Rorty.

Rorty (1990) has tried to associate Quine and even more so Davidson with other pragmatist ideas. One of them is what Rorty calls ‘anti-representationalism’, the denial that our beliefs represent reality and that notions like reality or truth have an absolute sense independent of human purposes and interests. Quine is an instrumentalist about knowledge, since he stresses that our theories are tools for the purpose of organizing and predicting experiences. Nevertheless, it is problematic to align Quine or Davidson with pragmatism on the topic of truth. For they both reject pragmatist theories of truth (whether Peircean or Jamesian) in favour of Tarskian theories (see *ITI* xviii). Davidson has also rejected, albeit politely, Rorty’s suggestion (1986) that he shares with pragmatism not a theory of truth, but a deflationary attitude towards truth according to which there is no problem about truth because ‘true’ has no explanatory uses. Indeed, this suggestion does injustice to both sides. As Rorty himself acknowledges, James himself had a constructive (and highly controversial) theory of truth. And Davidson has explicitly rejected deflationary accounts of truth.

It is precisely because neither the pragmatists nor Davidson are deflationists about truth, that Rorty’s claim of parallels between the two contains a kernel of truth. Davidson concedes that, like pragmatism, he rejects the correspondence theory of truth, along with its epistemological and metaphysical corollaries. Moreover, he rejects deflationism on grounds which he explicitly links to Dewey, namely that ‘access to truth could not be a special prerogative of philosophy, and that truth must have essential connections with human interests’ (SCT 279; see chapter 5, section 1 below).

This agreement is part of a more fundamental consensus. Like pragmatism, the philosophies of Quine and Davidson revolve around a striking conception of human beings and of human behaviour. Quine’s view of human behaviour is directly rooted in behaviourism. His theory of language-learning is based on the work of his Harvard colleague

B. F. Skinner, while his general behaviourist outlook goes back to Watson (TML 110). But a strong connection with pragmatism remains. Dewey's and Mead's attack on introspectionist psychology was one source of behaviourism, and their theory of language was in turn influenced by Watson, although their position was far less crude. Moreover, all pragmatists share with our protagonists a third-person perspective on mind and meaning. They also share with Davidson an emphasis on the rational aspects of human behaviour. Davidson's third-person perspective and his emphasis on rationality are a direct result of his work in decision theory during the fifties. But as he himself recognizes, the idea that rationality and with it language are essential to human action aligns his work with pragmatism, notably on the question of animal minds. Unlike Quine, whose epistemology starts out from the experiences of individuals, Davidson also follows pragmatism by regarding knowledge as an essentially social phenomenon arising out of linguistic communication.

A final and equally general point of contact has been highlighted by Rorty (1986: 333, 339). Like Quine and Davidson, the American pragmatists are famous for their 'debunking of dualisms'. Because of their naturalism and their behaviourism, they rejected the Cartesian dualism of mind and matter. Because of their Hegelian heritage and their general dislike for academic compartmentalizations, they revolted against Kantian dichotomies, especially the differentiation of concepts and intuition, of theoretical and practical reason, and of philosophy and empirical science. In the first respect they have been followed by Quine's and Davidson's anti-dualistic conceptions of the mind. In the second respect they have been followed and superseded by Quine's attacks on the positivists' distinction between analytic and synthetic statements and by Davidson's rejection of the Kantian distinction between conceptual scheme and empirical content. Both attacks are holistic, in that they regard philosophical and scientific statements as inseparable parts of a single web of beliefs.

Some interpreters have suggested that Quine should not be seen as part of the pragmatist tradition (Hookway 1988: 1–3; Koppelberg 1987: 313–14). One objection is that Quine picked up holism not from the pragmatists, but from Neurath. However, Quine himself states that his position owed no more to reading Neurath than it did to reading the pragmatists (POQ 212). In any event, there were acknowledged pragmatist tendencies in logical positivism over and above holism (see Carnap 1963: 860–2). Quine himself notes the proximity of Peirce's theory of meaning to the logical positivists' verificationism (PPE 30). Furthermore, both Carnap and Neurath

stressed the importance of pragmatic considerations in the construction of scientific theories and logical systems, appealed to behaviourism in order to incorporate psychology into unified science, and invoked the pragmatists to stress the social nature of language.

Davidson's work has been viewed not so much as a form of pragmatism than as a new kind of hermeneutics (Ramberg 1989; Malpas 1992) or a novel rationalist metaphysics (Evrine 1991). However, these characterizations are not incompatible. Pragmatism shares many features with hermeneutics, notably its stress on communication and its attempt to steer a middle ground between dualist and materialist conceptions of the mind. It also shares features with rationalism, such as the stress on the importance of reason and a rejection of the empiricist myth of the given, the idea that conceptually unmediated sensory stimulations provide the foundations of knowledge and meaning. The way in which Davidson uses the ideas of Quine, the arch-empiricist, to undermine certain tenets of empiricism is an impressive execution of James' admirable ambition (1978: 13–24, 127–9): to defend the values of the tender-hearted rationalists by the methods of the tough-minded empiricists.

This is not to deny that our protagonists diverge from pragmatism on important issues. For one thing, their philosophy is not infused with moral and political ambitions. Indeed, Quine has explicitly denied that such aspirations have a place in philosophy proper (*TT* ch. 23; RHS 493). For another, Quine's outlook is more austere than that of the pragmatists, and his allegiance to empiricism far more pronounced. Most importantly, Quine and Davidson did not pick up ready-made pragmatist ideas, since they had to develop those ideas independently out of a critique of logical positivism, and especially of Carnap.

These points do not alter the fact that Quine and Davidson are inspired by pragmatist themes and attitudes, whatever their actual historical origin. It is equally wrong, however, to portray their work as a pragmatist attack on logical positivism, particularly in Quine's case (*pace* Murphy 1990: ch. 7). Their philosophical styles, their problems and their methods owe much more to analytic philosophy in general and logical positivism in particular than to pragmatism. Both roots are important. Quine and Davidson can be characterized as *logical pragmatists*, because their relation to American pragmatism is in important ways analogous to that of the logical empiricists to classical empiricism. They develop *some*, but not all, fundamental ideas of pragmatism; and they do so in a clearer and more cogent way, thanks to their magisterial use of logico-linguistic analysis

and to their greater sophistication in semantics. Their philosophy of language *combines* the formal approach developed by Frege, Russell, the early Wittgenstein and the logical positivists, with the pragmatist idea that language is a form of human behaviour, an idea that is also important to the later Wittgenstein. As a result, Quine's and Davidson's philosophy of language is often more sophisticated than that of the original pragmatists. With the exception of Peirce, the pragmatists lacked the dialectical acuity and semantic know-how of the analytic tradition. To take one important example, Quine's and Davidson's attack on Kantian dualisms (analytic/synthetic, philosophy/science, scheme/content) is driven not by the Hegelian sentiments of the pragmatists, but by powerful and elaborate arguments in philosophical logic. At the same time, however, this formal approach can also be a source of errors that require correction by a more pragmatist perspective. The regimented languages of formal logic are neither superior to the dynamic and multifaceted practice that constitutes a natural language, nor do they reveal the hidden structure of the latter (see chapter 5, section 4 and chapter 8, section 3).

3 Quine's naturalism

Quine marks a decisive watershed in the development of analytic philosophy, because he challenged its very conception of philosophy. From Plato onwards, it has often been maintained that philosophy, like logic and mathematics, is *a priori*, independent of sensory experience. Its problems cannot be solved, its propositions cannot be supported or refuted, by either everyday observation or scientific experiments. This idea has been opposed by radical empiricists like Mill and, on occasion, Russell, who maintained that even the purportedly *a priori* disciplines – mathematics, logic and philosophy – are ultimately based on experience. The main attraction of this *prima facie* implausible insistence lies in the fact that it is very hard to provide a satisfactory explanation of the special status of these disciplines. Their propositions are *a priori* according to Platonists because they are about abstract entities beyond space and time, according to Aristotelians because they describe the most general features of reality, and according to Kantians because they express non-empirical preconditions of experience.

None of these explanations is compelling or even reasonably clear. By contrast, the logical positivists' linguistic doctrine of necessity promised to provide a distinctive role for philosophy, without dubious appeals

to a Platonic realm of abstract entities, Aristotelian essences or Kantian pure reason. While science results in empirical propositions that describe reality – and are hence synthetic – philosophy is concerned with analytic propositions which unfold the meaning of the terms employed by science and/or common sense. This linguistic turn was ostensibly directed against Kant's suggestion that philosophical propositions are synthetic a priori. Nevertheless, it is a linguistic transformation of a Kantian idea. Unlike science or common sense, philosophy does not itself describe objects of any kind, not even the abstract entities or essences postulated by Platonism and Aristotelianism. Instead, it is a *second-order discipline* which reflects on the conceptual scheme that science and common sense employ in their empirical descriptions and explanations of empirical reality.

This *kind* of line has been taken not just by logical positivists such as Schlick and Carnap, but also by other exponents of the linguistic turn, such as ordinary language philosophy and Wittgenstein. In spite of their considerable differences, these philosophers tended to accept that there is a qualitative difference between science, which is concerned with factual issues and hence a posteriori, and philosophy or logic, which is concerned with conceptual issues, and hence a priori. For the philosophy of mind, for example, this means that one must distinguish between the empirical discoveries of psychologists or neurophysiologists, which concern phenomena with which mental phenomena are contingently related, such as the firing of neurons, and the philosophical analysis of mental concepts, which specifies necessary features of mental phenomena.

Quine has completely overturned this picture by vigorously denying that there is a significant difference between philosophy and science. Many who claim that philosophical problems can simply be solved by science, notably neurophilosophers and members of the artificial intelligentsia, simply appeal to his authority. In this vein, Paul Churchland (1986: 2–3) commends Quine for overcoming a priori 'armchair' philosophy by demonstrating that 'philosophy at its best and properly conceived is continuous with the empirical sciences'. Ironically, in practice Quine is himself of the armchair variety. He did not claim that philosophy is empirical because he had discovered scientific evidence which solves philosophical problems. Instead, his line of argument was purely a priori. He maintained that from a *logical* point of view there is no qualitative difference between empirical propositions and the allegedly necessary propositions of logic, mathematics and philosophy. And in support of this claim he employed thought-experiments – notably in his argument for the

indeterminacy of translation – which are totally removed from empirical evidence. In fact, his arguments are much closer to Descartes' hyperbolic doubts than to scientific research.

In his writings on ontology, Quine argued that philosophical questions concerning the existence of, for example, numbers, are no different in principle from scientific questions concerning the existence of, for example, neutrinos. More importantly still, Quine rejected the analytic/synthetic distinction as an unfounded 'dogma of empiricism'. He thereby challenged the idea that there is a distinct type of proposition which articulates conceptual connections rather than empirical facts, and reinvigorated the position of radical empiricism, according to which philosophy is continuous with the sciences and ultimately based on experience. As a result of his work, this conception of philosophy as science has achieved the status of orthodoxy, especially in the USA.

According to Quine, proper or 'scientific philosophy' does not just emulate the methods of the deductive-nomological sciences; it is itself 'continuous with science', and in fact *part* of science. Quine wants to 'rub out or at least blur the distinction between philosophy and various sciences' (PPLT 2; PLSP 57, 47, 51). But while he could not be more explicit about this basic point, he provides diverse (though not necessarily incompatible) accounts of the role philosophy is to play within science. In some places he follows Locke's famous image of philosophy as an *underlabourer*: philosophy is a 'handmaiden to science' with the task of 'tying up loose ends' such as paradoxes and questions of evidence, problems that working scientists tend to ignore. In others he is closer to the more flattering Aristotelian image of philosophy as the *queen* of the sciences. It deals with the 'general, basic concepts of science' such as truth, existence and necessity (PLSP 57, 47–8). In more typical passages, he follows Russell and expresses the same image by reference to reality rather than concepts. Philosophy is concerned with 'a limning of the most general traits of reality'. It investigates the fundamental 'furniture of our universe', and differs from science only quantitatively, in the generality and breadth of its questions and categories (WO 161, 254, 228–9, 275–6).

Quine's work is not just of the utmost importance to the self-understanding of philosophy, it also raises a host of novel substantive issues in philosophical logic, epistemology, and metaphysics. Like other philosophical revolutionaries, he has shown how the nature of philosophy is linked to other topics, such as logical necessity, linguistic meaning, synonymy, knowledge, scientific method and ontology. Thus Quine's attack

on the analytic/synthetic distinction involved two lines of reasoning – one concerning epistemology and scientific method, the other concerning semantics and ontology. The impetus of the first line is that the analytic/synthetic distinction presupposes a second dogma of empiricism, namely ‘reductionism’, the view that every meaningful statement is translatable into a statement about the immediate experiences that confirm it. Reductionism would allow one to define analytic statements as those which are confirmed come what experience may (*FLPV* 38, 41). However, Quine argues, it is at odds with the holistic nature of scientific belief-formation, the fact that our beliefs form a ‘web’ in which each belief is linked to all others, and ultimately to experience. This means that it is impossible to specify confirming evidence for individual statements. It also means that any belief can be abandoned for the sake of preserving other parts of the web, and hence that there are no *a priori* statements immune to empirical revision.

Quine’s second line of reasoning evolves around the distinction between intension and extension. The distinction is Carnap’s (1956), but it goes back to Frege’s distinction between sense and meaning, and it is central to both Quine and Davidson. The notion of extension is a generalization of the notion of reference. The extension of an expression is what the expression stands for or what it applies to. The extension of a singular term is the object it refers to; the extension of a predicate is the set of objects of which it is true; the extension of a declarative sentence is its truth-value (its truth or falsity). By contrast, the intension of an expression is an aspect of what the expression means, standardly that aspect which determines its extension. The intension of a singular term could be a description which singles out its referent, the intension of a predicate the attribute or property which the objects falling under it must possess, the intension of a declarative sentence the proposition or thought it expresses.

Linguistic contexts or whole languages are extensional or transparent if and only if (henceforth ‘iff’) substitution of a part with the same extension does not change the extension of the whole. In an extensional context one can substitute co-referential terms *salva veritate*, that is, without altering the truth-value of the sentence. By contrast, intensional contexts or languages are ‘referentially opaque’ (*FLPV* ch. VIII; *WP* ch. 17; *WO* §30). Substitution of co-extensional sentence parts (singular terms, predicates) need not preserve the extension of the whole sentence. Furthermore, intensional contexts are not truth-functional: the truth-value of complex propositions is not simply a function of the truth-value of the component

propositions. Such intensional contexts are created, *inter alia*, by modal notions like ‘necessarily’, by so-called propositional attitudes like belief and desire, and by quotation. For example, even though ‘Tully’ and ‘Cicero’ refer to the same person, we cannot necessarily substitute the one for the other *salva veritate* in ‘Susan believes that Cicero was Roman’.

Quine’s semantic argument against the analytic/synthetic distinction is that analyticity is part of a circle of intensional notions that cannot be reduced to purely extensional notions like truth or reference. But, he argues, all these notions are obscure, because there are no criteria of identity for ‘intensions’: while we can establish whether two expressions have the same extension, we cannot establish whether they are synonymous, that is, have the same intension or meaning. Quine subsequently defended this contention by focusing on ‘radical translation’, the translation of a completely foreign language from scratch. Because such translation cannot assume any prior understanding, it helps us to appreciate that translation is ‘indeterminate’: there are no objective standards for whether two linguistic expressions are synonymous, and hence no criteria of identity for intensions. As a result, scientific philosophy should not accept intensions into its ontology. Indeed, as regards the *components* of sentences, even reference is ‘inscrutable’. It is impossible to tell what precisely the components of sentences refer to. As a result, in describing language scientific philosophy should stick to a behaviourist *ersatz* of meaning; ‘stimulus meaning’ is an extensional feature, and one possessed by whole sentences only, namely that of being assented to under certain stimulatory conditions.

What unites Quine’s metaphilosophical views with his approach to particular philosophical topics is his naturalism. All naturalists are hostile to explanations that invoke phenomena beyond nature, such as God, abstract entities in a Platonic realm beyond space and time, or Cartesian soul-substances. But beyond this consensus, naturalism comes in various shapes and sizes.

For our purposes, I want to distinguish three types of naturalism.

- Metaphilosophical naturalism claims that philosophy is a branch of or continuous with natural science;
- Epistemological naturalism is nothing other than scientism as defined above: it insists that there is no genuine knowledge outside natural science;
- Ontological naturalism denies that there is any realm other than the natural world of matter, energy, and spatio-temporal objects or events.

Quine comes to naturalism from a metaphilosophical angle, but this metaphilosophical naturalism is intricately linked to epistemological and ontological versions. He defines naturalism as the abandonment of 'first philosophy', the foundationalist project of providing science with a philosophical underpinning which is firmer than science itself (*TT* 72, see 21; *N* 257). According to Quine, there is no 'cosmic exile', no external Archimedean point, such as the one sought by Descartes, from which to compare our conceptual scheme or belief-system with reality (*WO* 275–6; *OR* 84–7, 126). However, Quine's naturalism is directed not just against the idea of philosophy as a super-science that provides the foundations of science, but also against any attempt to treat philosophy as a *sui generis* discipline with aims distinct from those of science.

Quine's metaphilosophical naturalism is an immediate consequence of what he calls 'methodological monism', the rejection of the analytic/synthetic distinction (*TT* 71–2). If there is no logical difference between analytic and synthetic propositions, then there is no qualitative difference of any kind between the propositions of philosophy and those of science. This metaphilosophical naturalism is reinforced by Quine's epistemological naturalism. Philosophy is part of science because otherwise it could not be a cognitive discipline aspiring to knowledge. In earlier writings, Quine disparaged forms of discourse other than science as 'second-rate' (*OR* 24). More recently, he acknowledged that there are 'perfectly good language-games' other than science, e.g. fiction and poetry (*PT* 20). Yet he remained wedded to the idea that there is no *knowledge* outside science, that natural science is the only route to truth, and provides the only genuine explanation of the world.

Quine is fond of Neurath's famous ship-metaphor. 'We are like sailors, who have to rebuild their ship on the open sea, without ever being able to put it into dry-dock and to build it afresh from best components' (*WO* motto; see Neurath 1944: 47). Philosophers cannot compare our belief-system as a whole with reality in order to establish its truth or falsity, as foundationalism had it. Nor can they engage in a second-order reflection on our conceptual framework, as Kant and proponents of the linguistic turn had it. Science provides our overall view of the world; and like science, philosophy seeks to describe and explain reality. As a result, philosophers and scientists 'are in the same boat' – empirical science – 'which stays afloat because we keep the bulk of it intact as a going concern'. Our evolving scientific doctrine, however fallible, is the 'final arbiter' of truth (*WO* 3–4, 23).

Quine recognizes that this epistemological naturalism requires a new conception of epistemology itself. He urges us to replace traditional epistemology by 'naturalized epistemology'. This novel discipline continues to investigate the subject of traditional epistemology, namely the relationship between theory (our beliefs) and empirical evidence; but it does so through empirical science (neurophysiology, behaviourist psychology), rather than through a priori reflection (OR ch. 3; TT ch. 2; see Stroud 1984: ch. 6; Orenstein 2002: ch. 8).

Quine's metaphilosophical and epistemological naturalism is also bound up with ontological naturalism. The task of philosophy/science is to explain reality. As part of this assignment, naturalized epistemology also explains our beliefs about reality. These explanations are not to make reference to any super-natural or immaterial phenomena. Indeed, because of Quine's adherence to the unity of science, his ontology is not just materialist but *physicalist* (see WO 1–4, 264–6; IPO 108; FM 162; TT 21; RHS 430). Strictly speaking, the only things that exist are those which feature in the explanations of the most fundamental science, namely physics.

At the same time, Quine's naturalism is not reductionist in the semantic sense of the term, which applies to logical atomism and the Vienna Circle. He does not claim that ordinary statements which are *prima facie* about non-physical phenomena (e.g. numbers or mental states) are semantically equivalent to some logical construction using terms referring exclusively to microphysical events. Indeed, he rejects this kind of reductionism as a 'dogma of empiricism' (FLPV 20). Instead, Quine's 'canonical notation', the formal language he recommends for the purposes of scientific philosophy, incorporates a form of *eliminative* naturalism. Statements which involve concepts that Quine repudiates as incompatible with naturalism are not *analysed* into statements of the kind he accepts; they are *replaced* by such statements.

Quine follows Carnap (1956: 7–8) in holding that the proper method of logical analysis is 'explication'. The objective of an explication is not to provide a synonym of the *analysandum*, but to furnish an alternative expression or construction which serves the cognitive purposes of the original equally well, while avoiding its scientific or philosophical drawbacks such as obscurity, philosophical puzzlement and unwanted ontological commitments (FLPV 25, 106; WO 224, §§33, 53–4; WP 151; TT 87). But while the logical positivists designed their ideal languages to put an end to metaphysics (by allowing only the formulation of scientific questions and propositions), Quine's canonical notation, by serving science,

also serves a metaphysical purpose, namely that of limning the most pervasive and fundamental traits of reality. In Strawson's illuminating phrase (1959: 9–10), Quine is the leading contemporary proponent of 'revisionary metaphysics'. Unlike descriptive metaphysicians (e.g., Aristotle, Kant, Strawson), his ambition is not to elucidate the way we in fact think or speak, our actual conceptual scheme, but to replace that conceptual scheme by a new way of thinking about the world. In Quine's case, this new conceptual scheme is dictated by modern science; his naturalism is designed to be *the metaphysics of science*.

Quine's aim is elimination rather than analysis. Yet Quine's naturalism has consequences similar to those of reductionism, in spite of his indignant reactions to that label (RHS 364). It rejects as illegitimate or inferior all cognitive claims couched in any idiom other than that of natural science, and thereby discards or marginalizes many forms of thought, notably those which use intensional or intentional concepts. The ultimate explication of any legitimate form of discourse is in terms of physics, or of a science which is as close to physics as possible, for example behavioural psychology. Physics gives us the fundamental description of reality, and all deep explanations of phenomena are physical explanations, for the fundamental laws of the universe are physical laws. Explanations in less fundamental sciences, though not reducible to physics, are at best local generalizations supervenient upon physical law.

Quine's ontological austerity and his scientistic metaphilosophy have inspired most contemporary forms of naturalism. Epistemologists, semanticists, philosophers of mind and cognitive scientists alike have scrambled to lay claim to his mantle. Together with Feyerabend, Quine is the godfather of eliminative materialism, the view that our ordinary psychological statements and concepts, notably the idiom of propositional attitudes, should be replaced by a more scientific, neurophysiological jargon. At a more general level, it is mainly because of Quine that few analytic philosophers these days would dare to publish a book in the philosophy of mind without at least professing their allegiance to some form of naturalism in the preface.

4 Davidson on reason's place in nature

It is just conceivable, however, that Davidson might be a heretical exception to this rule. His relation to Quine is a matter of considerable interest and of some dispute. Davidson himself claims to have abandoned

empiricism even in Quine's 'undogmatic' version (*ITI* 189; *MTE* 68). Many commentators confirm that in this respect at least he has broken radically with his mentor (Evnine 1991: 4–6). In my own view, which I hope to substantiate in this book, this is only part of the truth, albeit an important part. While Davidson modifies Quine's position in substantial and original ways, he does so without compromising the naturalistic framework or abandoning empiricism altogether.

In any event, their philosophies of language are best seen in conjunction. Quine provides the acknowledged starting-point for Davidson. *Inquiries into Truth and Interpretation* is dedicated 'To W. V. Quine without whom not'. Davidson presents his work as a continuation of Quine's, and Quine views matters in much the same way (*RQE* 172; *CTK* 313; *CBG* 80). Like Quine, Davidson combines logical analysis and formal semantics à la Tarski and Carnap with a pragmatist emphasis on language as a form of human behaviour. More specifically, Davidson fully endorses Quine's third-person perspective on meaning and communication: 'Perhaps the most important thing [Quine] taught me is that there could be no more to the communicative content of words than is conveyed by verbal behavior' (*RH* 80; see chapter 7, section 2 below).

In addition to this methodological agreement, Davidson accepts many of Quine's substantial claims: that truth is a property of token-sentences, that there is no significant difference between analytic and synthetic propositions, that translation is indeterminate, and that reference is inscrutable. Furthermore, he has developed other Quinean themes – notably radical translation and the attack on the idea of linguistic conventions – in powerful ways, which often make them more palatable, at least to those with reservations about Quine's austere naturalism.

For it is equally undeniable that Davidson's philosophical outlook is less harsh than Quine's. Although he accepts that there is no clear line between philosophy and science on account of rejecting the analytic/synthetic distinction, he does not advance an elaborate metaphilosophical doctrine, let alone a scientific one. If anything, he seems to regard the blurring of this line as a licence for philosophers to put in perspective the relevance of neurophysiological findings to problems in the philosophy of mind (see *PAV* 44; *EAE* 216). On occasion, Davidson calls himself a naturalized epistemologist. But what he underwrites is only a 'resolutely third person approach to epistemology' (*SIO* 159, 194; see Gibson 1994). As the example of Peirce and Wittgenstein shows, such an approach is not tied to Quine's transformation of epistemology into physiological psychology.

In fact, Davidson not only argues that such a move is actually inimical to a third-person perspective, he also echoes Kant and Frege in complaining that it runs together the causal explanation of our beliefs with their epistemic justification (see chapter 6, section 3).

This contrast is part and parcel of Davidson's general move away from some of Quine's empiricist and behaviourist commitments. He develops the heuristic device of radical translation and accepts a version of the indeterminacy of translation and of the inscrutability of reference. Yet he does not opt for Quine's nihilism about intensional semantic notions and their replacement by a behaviourist *ersatz*. Davidson's hope is rather that a purely extensional semantics can deliver or at least approximate intensional notions like meaning, provided that it furnishes an adequate explanation of linguistic behaviour.

Davidson uses Tarski's semantic theory of truth to construct a systematic theory of meaning for natural languages. Such a theory must be 'compositional'. It displays the meaning of every sentence as a function of the meanings of its components and of their arrangement, and thereby explains how a potentially infinite number of meaningful sentences can be constructed from a finite vocabulary. Davidson's crucial step is to maintain that Tarski's theory fits the requirements on such a compositional theory of meaning. Tarski defines the concept of truth for a formal language *L* through a recursive axiomatic system. The axioms lay down how the primitive signs (words) of *L* are to be interpreted. Together with the rules of inference, these axioms permit for each sentence *s* of the language the derivation of a so-called T-sentence, a sentence of the form '*s* is true iff *p*', where *s* is the name of a sentence of *L* and *p* the translation of that sentence into the language of the theory. Whereas Tarski relied on the notion of translation to define *truth*, Davidson assumes an understanding of the concept of truth; he can therefore use Tarski's theory as a Fregean theory of *meaning*. T-sentences state the meaning of the sentences of *L* by specifying the conditions under which they are true.

Unlike Tarski, Davidson hopes that such a theory can be constructed not just for formal but also for natural languages. He uses a variant of radical translation, what he calls 'radical interpretation', to show that a Tarskian theory for a natural language is capable of empirical confirmation. It is at this point that Davidson remains within the orbit of Quine's empiricism and naturalism. Like Quine, he suggests that the situation of radical translation/interpretation is characteristic of linguistic understanding in general, even within a linguistic community. Furthermore, he