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Analytic Philosophy in America

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The leading pre-analytic philosopher in America, and one of its giants of all time, was Charles Sanders Peirce (1839-1914). Receiving a scientific education (including a Harvard BS in chemistry in 1863), he lectured on logic and philosophy of science at Harvard (1864-5, 1869-71), and Johns Hopkins (1879-84), after which he moved to Milford, Pennsylvania, where he continued to write prodigiously. His greatest contributions were in logic, including a syntax for quantification theory (1870) and (1883), and a truth-functionally complete system based on what later came to be called "the Sheffer stroke." Though his contributions were, in many respects, parallel to those of Gottlob Frege, the two logicians worked independently, with the writing of Frege, through its influence on Bertrand Russell, becoming the more widely known. Still, Alfred North Whitehead was an admirer, whose knowledge of quantification theory was said to have come substantially from Peirce, while Hilary Putnam (1982) observes that much that is "quite familiar in modern logic actually became known to the logical world through the efforts of Peirce and his students." In (1985), W. V. Quine identified Peirce as sharing credit with Frege for the development of modern quantification theory, and cited his influence on Schroder and Peano.

Outside of logic, Peirce's philosophy of pragmatism – or, as he called it, "pragmaticism" – was widely admired. In epistemology, he was an anti-foundationalist, resisting the idea of a privileged starting point of maximally certain statements (e.g. of private sensation), and adopting, as a guiding hypothesis, the idea that the application of scientific method to intersubjectively verifiable claims would, through a process of self-correction, lead different investigators to converge on a common result, no matter what their starting points. While not definitively identifying truth with that which would be confirmed in the limit of ideal (scientific) inquiry, he did think that the practical consequences of true beliefs provided grounds for

expecting them to be confirmed by continuing investigation. Correspondingly, he took the meaning of a theoretical claim to be its experiential "cash value" – the collection of possible empirical observations that would verify it. He had little patience with metaphysical speculation about "things in themselves" underlying observed phenomena, or grand metaphysical systems. In all these ways, Peirce exerted a strong influence on those who would follow. Peircean reverence for logic, respect for science, suspicion of apriori metaphysics, and emphasis on the practical consequences of theoretical differences found fertile soil, and took root in America, creating a hospitable environment for the later growth, and distinctive shape, of analytic philosophy there.

The other great American pragmatist was William James (1842-1910). Like Peirce, James had a scientific education in chemistry, anatomy, and medicine at Harvard, where he received an MD in 1869. He taught physiology in 1872, and in 1875 he set up the first laboratory for experimental psychology in America. Between 1885 and 1907 he was professor of psychology and philosophy at Harvard, giving *The Varieties of Religious Experience* (1902) as the Gifford Lectures at Edinburgh, and publishing *Pragmatism* in 1907. Though influenced by Peirce, his outlook was less scientific, and his audience broader. Whereas for Peirce, truth and meaning rest on the intellectual foundation of possible observation, for James they rest on what it is beneficial to believe. To the extent that religious beliefs help us live better lives, they pass the Jamesian pragmatic test for truth, just as scientific beliefs do.

Third in the trio of pre-analytic pragmatists was John Dewey (1859-1952), who got his PhD in philosophy from John's Hopkins in 1884, where he encountered Peirce. Between 1884 and 1930, he taught at the Universities of Michigan, Minnesota, Chicago, and (for the last twenty-four years) Columbia. Like Peirce, he was an anti-foundationalist, and believer in the

self-correcting nature of empirical investigation in a community of inquirers. Like Quine, who was to follow, he held that there are no absolute first principles that are either known with certainty, or beyond rational revision in light of new experience. Truth, for Dewey, was warranted assertability. Though less influential than Peirce in the later development of analytic philosophy, his views on education, and other social issues, had a large and controversial impact.

Along with pragmatism, realism and naturalism characterized much American philosophy between Peirce and Quine. Peirce wrote in 1896, "Nothing can be more completely false than that we can experience only our own ideas. That is indeed without exaggeration the very epitome of *all* falsity" (cited in Passmore (1957)). The independence of the perceived from the perceiver, and the known from the knower, was emphasized in *The New Realism* (1912) by philosophers such as E.B. Holt and R.B. Perry. As Passmore (1957) notes, their conception of perception was similar to that given in G. E. Moore's "The Refutation of Idealism" (1903), while their rejection of "internal relations" paralleled a similar rejection, central to the rebellion of Moore and Russell against absolute idealism. (The importance of the rejection for New Realists was in their observation that when a knows b, the relational properties of knowing b, and of being known by a, are not essential to a and b, respectively.) By 1920, another brand of realism, Critical Realism, was on the scene. Advocated by A. O. Lovejoy, G. Santayana, and R. W. Sellars, among others, it struggled to reconcile the objective physical world, revealed in perception, with an irreducible Kantian residue added by the perceiver to the content of experience. Although disputes between these varieties of realism have now lost much of their force, it is striking how congenial the broad themes of naturalism, respect for science and common sense, and suspicion of idealism and other apriori speculation were to the growth of analytic philosophy in America.

The Transition to Analytic Philosophy

The American transition to analytic philosophy was mediated by several pivotal figures, institutions, and events. One such figure was Morris Cohen (1880-1947). Born in Russia, educated at City College of New York, with a 1906 Harvard PhD, he taught at City from 1912 to 1938, and at the University of Chicago from 1938 to 1941. Known for his interest in logic and the philosophy of science, he was a committed naturalist who recognized no non-scientific methods capable of attaining knowledge in philosophy. One of his students was the Czechoslovakian born Ernest Nagel (1901-1985), who, after earning his BA at City, got his PhD in 1931 (under Dewey) from Columbia, where (with the exception of a year at Rockefeller University in the 60s) he spent his career teaching and writing about the philosophy of science, and explaining the centrality of logic to philosophy. His little book, *Gödel's Proof* (1958) co-authored with James R. Newman, introduced the incompleteness theorems to many students, while his main work, *The Structure of Science* (1961) summed up the results of decades of teaching and research on the nature of explanation, and the logical structure of scientific knowledge.

Of all the transitional figures, the greatest was C. I. Lewis (1883-1964). Receiving his BA (1905) and PhD (1910) from Harvard, he worked with, and was influenced by, William James, Josiah Royce, and Ralph Barton Perry. After teaching at Berkeley for nine years, he returned to take a position at Harvard in 1920, from which he retired thirty-three years later, having taught many who would become leading analytic figures – including Quine, Roderick Chisholm, Roderick Firth, William Frankena, Nelson Goodman, and Norman Malcolm. He finished his career at Stanford University in 1960. An eclectic thinker and system-builder, Lewis combined an element of perceptual realism, filtered through Perry, a Kantian element, filtered through Josiah Royce, and a pragmatic element, filtered through Peirce (whose work he encountered when given the job of

cataloging the latter's vast unpublished writings). Like Perry, he believed that perception and knowledge require an independent reality given in experience. Like Royce he was convinced that experience is the result of structuring and interpreting the given in terms of "apriori" concepts added by the mind. Like Peirce he held (i) that our concepts – even the "apriori" ones -- are not fixed by the nature of the mind, but are revisable in light of experience, and (ii) that the meanings of concepts, thoughts, and experience lies in their pragmatic success in anticipating and predicting new experience, and grounding successful action. These ideas were worked out in his two major works, *Mind and the World Order* (1929), and *An Analysis of Knowledge and Valuation* (1946), which were among the most widely read of their day – the former being the subject of a memorable seminar at Oxford led by J. L. Austin and Isaiah Berlin in the 1936-37 academic year.

Lewis's relation to the logical positivists was ambiguous. On the one hand, he shared their scientific naturalism, their emphasis on logical analysis, and their view of testable consequences as the basis of empirical significance. On the other, he vigorously opposed their non-cognitivism about value, their physicalism, and their embrace of "the linguistic turn." For him, the primary bearers of meaning and truth were mental: thoughts, concepts, and experiences. Of most importance for analytic philosophy was his pioneering work in modal logic, included in his widely read, *Symbolic Logic* (1932), co-authored with C. H. Langford. His main contribution was in formulating a series of increasingly strong axiomatic systems (the S-systems) of the modal propositional calculus (with operators for necessity and possibility) – which provided the basis for (i) later axiomatic extensions to the predicate calculus by Ruth Marcus (1946) and Rudolf Carnap (1946), (ii) the fledgling semantic treatment in Carnap (1947), and (iii) the revealing model-theoretic interpretations of the S-systems in Saul Kripke (1959) and (1963). For Lewis, the philosophical moral drawn from the competing axiomatic systems was that logical first principles are not decidable apriori, but must be

judged by their pragmatic success – a conclusion which, no matter what its ultimate merits, was premature in light of later work. Finally, the distinction in Lewis (1946) between the different "modes of meaning of a term" – (i) its extension, consisting of things to which it refers or applies, (ii) its "comprehension" (now called its "intension") consisting of a mapping of possible world-states to extensions, and (iii) its "signification", consisting of a concept or property determining (ii) – was an important forerunner of later developments in analytic philosophy of language.

In understanding the transition to the analytic period in America, it is important to remember that analytic philosophy is neither a fixed body of substantive doctrine, a precise methodology, nor a radical break with most traditional philosophy of the past -- save for varieties of romanticism, theism, and absolute idealism. Instead, it is a discrete historical tradition stemming from Frege, Moore, Russell, Wittgenstein, and the logical positivists, characterized by respect for science and common sense, belief in the relevance of logic and language for philosophy, emphasis on precision and clarity of argumentation, suspicion of apriori metaphysics, and elevation of the goals of truth and knowledge over inspiration, moral uplift, and spiritual comfort -- plus a dose of professional specialization. All of these tendencies were already present in America – preeminently at Harvard, but also at Columbia, City College of New York, the University of Michigan, and other environs. They were reinforced by repeated visits to America to teach and lecture by Moore (1940-44) and Russell (1896, 1914, 1924, 1927, 1929, 1931, 1938, 1939, 1940-42), and the addition to the Harvard philosophy faculty in 1924 of the coauthor of *Principia Mathematic,* Alfred North Whitehead. Each had a noticeable impact on the locals. For example, Quine -- whose first great paper, "Truth by Convention" (1936), appeared in a collection in honor of Whitehead -- describes his 1931 encounter with Russell as his "most dazzling exposure to greatness," while his later Harvard colleague, Morton White, says that his experience of Moore at Columbia in the early 40s

was "one of the most refreshing episodes in [his] philosophical education." By then, all that was needed for America to enter the stream of analytic philosophy was for the works of its philosophers to regularly, and in large numbers, enter the torrent flowing from its British and European sources.

The Beginnings of Analytic Philosophy

The emergence of analytic philosophy in America was marked by three events above all others – (i) the arrival from Europe of leading logicians, philosophers of science, logical positivists, and other analytic philosophers (ii) the transformation of the Harvard department led by Quine in the 1950s, and 60s, and (iii) the vast post-war expansion in higher education in America, which came to encompass a substantial drain in philosophical talent from Britain to the United States – including (for varying lengths of time) such figures as Paul Grice, Stuart Hampshire, J. O Urmson, and the British trained (though American born) Philippa Foot.

The first, and most dramatic of these events, was the arrival of an enormously gifted and distinguished group of émigrés from Europe. Among them were, Herbert Feigl (1902-1988), arriving from Vienna in 1931, Rudolf Carnap (1891-1970), arriving in 1935 from Prague, Carl Hempel (1905-97), arriving from Germany in 1937, Hans Reichenbach (1891-1953), arriving from Germany by way of Turkey in 1938, Gustav Bergman (1906-87), coming from Vienna in 1938, Alfred Tarski (1901-83), from Poland in 1939, and Kurt Gödel (1906-78), arriving from Vienna in 1940.

Feigl, who studied philosophy of science and probability under Moritz Schlick, and was a member of the Vienna Circle, first taught at the University of Iowa from 1931 to 1940, and then at the University of Minnesota from 1940 to 1973. He is best known for his partnership with Wilfred Sellars in (i) co-editing the collection *Readings in Philosophical Analysis* (1949), which was for decades a staple in the classrooms of analytic philosophers, and (ii) co-founding the journal *Philosophical Studies* in 1950 as a forum for the new school of "analytic philosophy".

Carnap, the world's premiere logical positivist, taught at the University of Chicago from 1936 to 1952, with a year's visit at Harvard in 1941-42. From 1952 to 1954 he was at the Institute for Advanced Study in Princeton, after which he held a chair in philosophy at UCLA from 1954 to 1962. Having studied logic with Frege, Carnap's own students included such notable American philosophers as Richard Jeffrey (subjective probability) and David Kaplan (the logic of demonstratives). Among Carnap's major works published during his years in America were "Testability and Meaning" (1936-7), *Introduction to Semantics* (1942), *Meaning and Necessity* (1947, 1956), *The Logical Foundations of Probability* (1950a), and "Empiricism, Semantics, and Ontology," (1950b, 1956).

Reichenbach, another leading positivist, and preeminent philosopher of science, studied civil engineering, physics, mathematics, and philosophy -- working under, or attending lectures of, David Hilbert, Max Planck, and Albert Einstein. In the 1920s, he published several books interpreting Relativity Theory, and in 1930, together with Carnap, he took over editorship of *Erkenntnis*, the leading journal of logical positivism. In 1935, while in Turkey, he published *The Theory of Probability*. After moving to the United States, he accepted a position at UCLA, where he remained until his death in 1953. Among his students there was Hilary Putnam, who was to become a leading philosopher at Princeton, MIT, and Harvard. Reichenbach's major American works included *Experience and Prediction* (1938), *Philosophic Foundations of Quantum Mechanics* (1944), *Elements of Symbolic Logic* (1947), and *The Rise of Scientific Philosophy* (1951).

In his first year in America, Hempel, who had been a well-known contributor to logical positivism in Europe, held a position as a research associate at the University of Chicago, arranged by Carnap. From 1939-48, he taught in New York, at City College and Queens, after which he went to Yale, where he stayed until 1955. In that year he joined the Princeton department, where

he became -- with the renowned classical philosopher, Gregory Vlastos -- the nucleus of what was to become one of the world's great centers of analytic philosophy. Hempel remained at Princeton until his retirement in 1973, after which he spent another decade teaching at the University of Pittsburgh. Upon retiring from there, he returned to Princeton (which had kept his house and office for him), where he spent the rest of his life. His major American works include "Studies in the Logic of Confirmation" (1945), "A Definition of Degree of Confirmation," with Paul Oppenheim, (1945), "Studies in the Logic of Explanation," with Oppenheim, (1948), "The Empiricist Criterion of Meaning" (1950), *Aspects of Scientific Explanation* (1965), and *Philosophy of Natural Science* (1966).

Bergmann, who had been associated with the Vienna Circle, taught at the University of Iowa from 1939 to 1974. President of the Western Division of the American Philosophical Association in 1967-68, his students went on to teach in many philosophy departments throughout the country.

Alfred Tarski had already done his path-breaking work on truth and logical consequence when he set off from Poland in August of 1939 (on what turned out to be the last boat before the Nazi-Soviet invasion) to lecture at the Congress for Unified Science at Harvard University. Finding that he had no country to return to, he remained in the United States. Though initially unable to secure a regular faculty position, he held a two-year post as research associate at Harvard, arranged by Quine, and taught two courses in logic at the City College of New York. After spending 1941-42 (with Gödel) at the Institute for Advanced Study in Princeton, he moved to the mathematics department at Berkeley, where he remained. Acknowledged as one of the greatest logicians of all time, he was also a dedicated and influential teacher. As leader of the PhD program in Logic and the Methodology of Science at Berkeley, Tarski both exercised a strong

influence on his younger colleagues, like Dana Scott, and supervised twenty-four dissertations, including those of Richard Montague and Solomon Feferman – who substantially influenced the course of analytic philosophy, as well as the programs of their respective institutions (Scott at Princeton, Montague at UCLA, and Feferman at Stanford). The trio of Tarski, Gödel at (at the Institute for Advanced Study in Princeton from 1940), and Alonzo Church (Princeton from 1929 - 1967, and UCLA from 1967 - 1990 – whose students included Anthony Anderson, Leon Henkin, Stephen Kleene, Hartley Rogers, J.B. Rosser, Dana Scott, and Alan Turing) not only transformed the mathematical study of symbolic logic, but also exerted a powerful force on the study of philosophical aspects of logic by analytic philosophers.

The second factor leading to the triumph of analytic philosophy in America was the transformation of the Harvard department, led by Quine (1908 – 2000) -- the one man more responsible than any other for the decisive analytic turn in America. In 1932, he finished his PhD dissertation at Harvard on Russell's *Principia Mathematica*. During the next year, he held a fellowship that allowed him to travel to Europe, where he met, or attended seminars given by, Carnap, Tarski, Lesniewski, Lukasiewicz, Schlick, Hahn, Reichenbach, Gödel, and Ayer. (He had already met Feigl in 1930.) The relationship with Carnap was the deepest. Back at the Harvard Society of Fellows for three years, he gave lectures expounding Carnap, and published his well-known paper, "Truth by Convention" (1936), which grew out of them. There, Quine attacked the linguistic theory of the apriori, then popular among the positivists. In opposition to the view that all apriori knowledge, including knowledge of logic, is knowledge of linguistic convention, he pointed out that the potentially infinite scope of logical knowledge would require it to be derived from a manageable set of allegedly conventional axioms. But since knowledge of logic is presupposed by such derivations, it cannot be explained by them. The objection, which to this day remains

powerful, illustrates a characteristic feature of Quine's thought. Starting with the problems posed by his positivist mentors, he isolates a central tenet about meaning in their proposed solution, and exposes an inherent problem. Quine's reaction was not, of course, to give a nonlinguistic account of the apriori, but to purify empiricism by giving up the apriori altogether.

The same dynamic is illustrated in his discussion of ontological commitment in "On What There Is" (1948) and of analyticity in "Two Dogmas of Empiricism" (1951) -- where his skepticism about analyticity, and his holism about empirical content, are on display. With Carnap and other positivists, he agrees (i) that the empirical content of our claims is to be found in the observations that would confirm them, and (ii) that necessity is to be identified with analyticity, if it exists at all. Unlike them, Quine rejects any account of empirical content, or meaning, that portions it out to sentences one by one, and, in so doing, he ends up discarding analyticity, apriority, and necessity in the bargain. The end result is a version of empiricism of the same sort as that of the logical positivists, only more radical, in which meaning plays no privileged epistemic role. Thus it was that philosophy in America entered the mainstream of analytic philosophy, altering its course.

By 1951 Quine was a world-renowned figure. However, despite having been tenured at Harvard for ten years (interrupted by a stint of military service in World War II), he was still in the minority there – as illustrated by the department's rejection of his 1948 proposal to offer a position to Carnap. In those years, his chief allies were first, Henry Aiken, who joined the department in 1946, and later, Morton White, whose appointment in 1948 was instigated by Aiken and Quine. With these appointments, and the retirement of C.I. Lewis in 1953, the department was ready for change. In the 50s and 60s, largely under the philosophical leadership of Quine and the chairmanship of White, Harvard added Roderick Firth, Burton Dreben, Israel Scheffler, and Rogers

Albritton, Stanley Cavell, John Rawls, Nelson Goodman, Hilary Putnam, and Robert Nozick. By the end of that time they had gathered as fine a collection of philosophers as could be found anywhere.

The 50s and 60s also saw a lively interaction grow up between the philosophers at Harvard and those at Oxford. Having met Isaiah Berlin in 1949, White spent a year at Oxford, coming away deeply impressed, not only by Berlin, but also by Gilbert Ryle, John Austin, H. L. A. Hart and Paul Grice. Shortly thereafter Austin, Hart, and Grice were lecturing at Harvard. First, Austin spent the Spring of 1955 at Harvard giving *How to Do Things with Words* (later published in 1962) as the William James Lectures. Then, Hart spent the 1956-57 academic year teaching philosophy and law, to be followed by Grice, who lectured at Harvard in the late 50s before giving "Logic and Conversation," as the William James Lectures of 1967 (eventually published in Grice 1989). This interaction between the Quine-led descendants of Carnap and the Ryle-Austin-Grice-led descendants of Wittgenstein encompassed the most important strands of the analytic philosophy of the day. Both sides were well represented at Harvard, and nowhere in the philosophical world was the intellectual ferment more lively. What was true of Harvard, was also increasingly true of America as a whole – as visits by, and longer-term professorships for, leading British-trained philosophers, including Elizabeth Anscombe, Philippa Foot, Stuart Hampshire, David Pears, and J. O. Urmson, brought important non-positivist perspectives to the rapidly advancing ranks of analytic philosophers in America. Although in the end the Quinean-Peircean logical and scientific strand of analytic philosophy proved to be the strongest, both at Harvard and across America, the tradition was enlarged, implicitly refuting Quine's infamous echo, "philosophy of science is philosophy enough," of Carnap's original call to arms (from *The Logical Syntax of Language* (1934, 1937)) "Philosophy is to be replaced by the logic of science – that is to say, by the logical analysis of the concepts and sentences of the sciences."

By the early 70s analytic philosophy was dominant in America. Fueled by the enormous postwar expansion in higher education, the number of faculty positions in philosophy – to be filled overwhelmingly by analytic philosophers – expanded rapidly. Membership in the American Philosophical Association rose from 747 in 1940, to 1,248 in 1950, 1,984 in 1960, 2,725 in 1970, and 5,125 in 1980. With these numbers came the growth of several powerful analytic departments. Chief of these was Princeton, which – with Paul Benacerraf, John Burgess, Michael Frede, Gilbert Harman, Richard Jeffrey, Saul Kripke, David Lewis, Thomas Nagel, Thomas Scanlon, and Margaret Wilson, among others – was, by the end of the 70s, widely regarded as the top of the heap. Close behind, specializing in the philosophy of science, was Pittsburgh, which had come into its own as a great department when Wilfred Sellars arrived from Yale in 1963, bringing with him a group of that institution's best young philosophers. Throughout the period, Michigan retained its reputation for preeminence in ethics and meta-ethics, a position it held since the arrival of the famous emotivist Charles Stevenson in 1946 (from Yale). Two other programs, UCLA and Cornell, also deserve special notice. Having welcomed Reichenbach and Carnap, acquired Montague and Church, and hired its own brilliant PhD, David Kaplan, UCLA was almost without peer in the study of philosophical logic. Adding Tony Martin, Tyler Burge, Rogers Albritton, and Philippa Foot, it became a powerhouse in the arsenal of analytic philosophy. Meanwhile, Cornell had become the home of Wittgensteinianism in America -- under the influence of Norman Malcolm, who studied with Wittgenstein at Oxford, and Max Black who wrote an important work on the *Tractatus*. With the addition of Sydney Shoemaker, Keith Donnellan, and (later) Robert Stalnaker it attained a position of continuing strength. Other leading departments between 1940 and 1980 included Berkeley, Stanford, MIT and Brown.

The staggering growth in the quality and quantity of analytic philosophy in that period, and the extent of its dominance throughout the country, is illustrated by a dramatic contrast between two departments at very different institutions. The first is the philosophy department at Wayne State University, located in downtown Detroit, serving a predominantly lower middle-class and working-class student population. Such was the abundance of available talent, and the enthusiasm of young philosophers entering the profession, that between 1955 and 1970 the philosophy department at Wayne acquired a reputation for precision, passion, and fierce analytical argumentation that had few rivals anywhere. Among the prominent philosophers who spent substantial portions of their careers at Wayne were Richard Cartwright, Hector-Neri Castaneda, Edmund Gettier, Keith Lehrer, George Nakhnikian, Alvin Plantinga, and Robert Sleigh. In 1967, the leading journal, *Nous*, was started at Wayne by Castaneda (a student of Sellars). By contrast, philosophy at Yale, one of America's great, elite universities, suffered. Setting itself in the 40s and 50s resolutely against the rising tide of analytic philosophy, and fancying itself the defender of a less scientific, more humanistic and metaphysical tradition, the department denied tenure to Stevenson in 1946, refused to promote Hempel in 1955, lost Sellars in 1963, and declined to renew Stalnaker's contract in the early 70s. By the late 80s, with only three senior professors, it was stripped of its power over appointments, and placed in receivership. At the dawn of the new century, it was only beginning to recover. Such was the contrast between embracing (Wayne) and dismissing (Yale) analytic philosophy in America.

With the background set, and institutional terrain surveyed, it is time to turn to leading philosophical themes and figures in American analytic philosophy.

The Quine/Carnap Debate about Meaning, Reference, and Analyticity

The logical empiricist, Carnap, divided meaningful sentences into two classes – the analytic and the synthetic -- the content of the later explicated in terms of observations that would

verify them. Quine in part agreed and in part disagreed. While happy to identify the meanings of comprehensive theories with the observations that would confirm them, he attacked Carnap's distinction between sentences as based on the false presupposition that a scientifically defensible conception of meaning could sensibly be applied to individual sentences, taken one by one. This meant rejecting the idea that sentences, or other expressions, could be synonymous, as well as the idea that they could be true in virtue of meaning. Carnap replied that the intensional notions of meaning and synonymy could not be rejected without also rejecting the extensional notions of truth and reference. Regarding that course as too radical, he developed an account of the integrated connections between extensional and intensional notions, as well as an explanation of how empirical evidence bears on assignments of semantic values to expressions.

An early follower of Tarski, Carnap correctly distinguished Tarski's notion of truth from epistemic notions like certainty and confirmation, with which truth had often been confused -- "Truth and Confirmation" (1949). Rightly noting that these confusions had prevented truth from playing a central role in earlier positivist accounts of meaning, he made it the basis for his own subsequent semantic theories – "Intellectual Autobiography" (1963). (Unfortunately, like other early theorists, he wrongly took the notion of truth needed for this task to be Tarski's own formal notion. Fortunately, his semantic theories do not depend on this error.) In *Introduction to Semantics* (1942) Carnap laid out his truth-conditional conception of meaning, extending it to modal languages in *Meaning and Necessity* (1947), where necessary truth is identified with analyticity. Later, in "Meaning and Synonymy in Natural Languages" (1956), he tried to show how the meaning of a term, over and above its reference, can play an important role in empirical theorizing about language users. He argued that although there are empirical uncertainties in establishing the meaning and reference of a given term, there are sound empirical methods for

bringing evidence to bear on both questions. As a result, he concluded, meaning and reference are in the same boat. Thus, he thought, Quine was wrong to dismiss intensional notions like meaning and synonymy, while apparently retaining extensional notions like reference (and truth). Contrary to Quine, Carnap maintained that the intensional and the extensional are scientifically on par – both required, and both respectable.

Quine's response was to agree that meaning and reference are on a par, but to up the ante by rejecting both. This, in the end, was the legacy of his doctrine of the indeterminacy of translation and the inscrutability of reference -- presented in *Word and Object* (1960), "Reply to Chomsky" (1969), "Ontological Relativity" (1969), and "On the Reasons for the Indeterminacy of Translation" (1970). The problem, as he saw it, was that neither theories assigning sameness of meaning to sentences, nor those assigning reference to subsentential expressions, are determined by possible (behavioral) data bearing on their confirmation. Moreover, he claimed, the addition of all truths statable in the language of physical science would not resolve the indeterminacy. Since he held (roughly) that all genuine truths are determined by the physical truths, he concluded that statements attributing sameness of meaning to sentences, or reference to subsentential expressions, do not qualify as objective truths.

Though spectacularly provocative, this view did not command lasting assent. The argument for it suffers from implicit ambiguities involving the determination relation – no resolution of which seems capable of simultaneously vindicating all Quinean premises. (Soames 2003b, chapter 10.) In addition, the indeterminacy theses appear to be self-undermining. Taken together, they amount to radical eliminitivism about the ordinary notions of meaning, reference, and truth -- coupled with a proposal to replace them with scientifically respectable notions of stimulus meaning, disquotational Tarski-reference, and Tarski-truth. The difficulty is that without the

notions he proposes to eliminate, the crucial theses on which his doctrines depend appear to be unstatable. (Soames 2003b, chapter 11). Thus, it is not clear that his position is sustainable.

The Struggle over Modality and the Rise of Philosophical Logic

As noted, in 1946 Marcus and Carnap independently extended Lewis's axiomatic treatment of the modal propositional calculus to the predicate calculus (with quantification). In 1947, Carnap coupled this with a primitive possible-worlds semantics. However, this extension of logic to include quantification over modal operators provoked vigorous Quinean objections – Quine (1943), (1947), (1953) -- which, unfortunately, were not carefully distinguished from one another for decades. Quine's strongest, and most justifiable, point was – as Burgess (1998) explains – that there was a mismatch between the formal innovation of quantifying into modal constructions, and the informal, philosophical explanations given by modal logicians of the content of the necessity operator they employed. When asked *What notion is it the logic of which is formally captured by systems containing this operator?*, the answer commonly given was that by *necessity* they meant *logical truth* or *analyticity*. Quine, of course, had problems with analyticity. However, what exercised him about quantified modal logic was that since analyticity is supposed to be a property of sentences, quantifying into a construction governed by the necessity operator amounts to attributing *truth in virtue of meaning,* not to a sentence, but to a pair consisting of a formula containing a free occurrence of a variable and an object serving as value of the variable. The idea that such a pair could be true in virtue of meaning, Quine thought, made no sense. Whether or not sense could, in principle, be made of it, modal logicians at the time were not doing so. Thus, he understandably concluded, quantified modal logic rests on a mistake.

More generally, he concluded it is unintelligible to (objectually) quantify into any construction for which substitution of coreferential singular terms sometimes fails to preserve truth.

This was a definite error, though one not clearly recognized for many years – Kaplan (1986), Kazmi (1987), Richard (1987), and Soames (1995). Distracted by this error, defenders of modal logic – Smullyan (1947) and (1948), Fitch (1949), Marcus (1960) and (1961), and Follesdal (1961) – focused on what they took to be the need for logical languages to contain name-like terms (pure tags) that resisted failure of substitutivity (under coreference) everywhere. However, the definitive response to Quinean objections to quantified modal logic was not to invent a special class of terms, but to stop viewing necessity as analyticity, to start thinking of it as truth at all counterfactually possible world-states, and to explain what it is for a statement that a given object has, or lacks, a specified property at such a state to be true. Theses moves, hinted at in the formal Kripke-semantics for modal logic, were made explicit in Kripke's 1970 lectures that became *Naming and Necessity* (1980), and reinforced by David Kaplan's 1971 manuscript which became "Demonstratives" (1989).

After the development of the Kripke-semantics, progress in philosophical logic exploded. Similar treatments of tense logic, building on Arthur Prior's *Time and Modality* (1957), and intuitionist logic, soon followed. The most comprehensive program was spelled out in a series of papers by Richard Montague, published in the 60s and early 70s, and collected in his *Formal Philosophy* (1974). There, Montague articulated a highly generalized system of intensional logic that served as a framework for analyzing the syntax, semantics, and pragmatics of large fragments of natural language. This work not only influenced the philosophical logicians who were to follow, but also provided the basis for an approach to semantics in theoretical linguistics that has lasted into the new century. Formal, truth-conditional semantics of the languages of modern symbolic logic began with Tarski in the 30s. Now, with the philosophical logic of Carnap, Prior, Kripke, Montague and others, the range of linguistic constructions amenable to these techniques was expanded to include those expressing time and tense, necessity and possibility, and many

others. David Kaplan's "Demonstratives" extended this program to include another essential feature of natural language -- context-sensitive sentences containing indexicals like *I, we, you , she, that, now, today*, and *actually*. By the end of the century, it had become possible to imagine the day in which natural languages would be treatable in something close to their entirety by descendants of the logical techniques initiated by Tarski.

One of the most important philosophical applications of the new logic was the development of the Stalnaker-Lewis treatment of counterfactual conditionals, given in Robert Stalnaker, (1968), (1975), (1978), and David Lewis (1973a). The problem, which had long been of interest to analytic philosophers, had been illuminated but not solved by Nelson Goodman in "The Problem of Counterfactual Conditionals" (1947), and *Fact, Fiction, and Forecast* (1954). On the Stalnaker-Lewis approach – widely credited as a significant advance -- *If it had been the case that A, then it would have been the case that B* is true iff among the world-states at which A is true, those in which B is also true are more similar to the actual world-state than those in which B is false (with the relevant similarity relation depending on aspects of the context of utterance). In addition to providing solutions to logical and semantic problems, this analysis had the effect of legitimizing and clarifying the role of counterfactuals in illuminating a variety of philosophically important concepts. See, for example, Lewis (1973b) and (1986b) on causation, Stalnaker (1984) on mental content, and Lewis (1997) on dispositions.

The Davidsonian Program

Similar in aim to modal semantics, but different in execution, the program of Donald Davidson (1917–2003) attempted to provide a philosophically revealing truth-conditional theory of meaning for natural language, based on the work of Tarski. However, whereas philosophical logicians in the Carnap-Kripke-Montague-Kaplan tradition employed complex systems of

intensional logic – in which the truth of sentences is relativized to possible world-states, plus, in many cases, times and contexts – Davidson worked within the simple extensional framework that Tarski had used. His aim – as indicated in Davidson (1965), (1967a), (1970), (1973a) and 1973b) -- was to construct finitely axiomatizable theories of truth for natural languages L that allow one to derive – from axioms specifying the referential properties of its words and phrases – a true T-sentence, ⌈'S' is a true sentence of L if and only if p⌉, for each sentence S of L. Since such a theory would give the truth conditions of every sentence on the basis of its semantically significant structure, it would, Davidson thought, count as a theory of meaning for L. He envisioned such a theory being empirically tested by comparing the conditions in which speakers hold particular sentences to be true with the truth conditions it assigns to those sentences. On his view, the correct theory of meaning is, roughly, the theory T_M according to which the conditions in which speakers hold sentences to be true most closely matches the conditions in which T_M, plus our theory of the world, predicts the sentences to be true. Roughly put, Davidson takes the correct theory to be the one according to which speakers of L turn out to be truth tellers – *modulo* instances of explicable error -- more frequently than on any other interpretation of L.

This bold idea generated responses of two sorts. The first attempted to implement the program by giving analyses of natural-language constructions in Davidsonian terms. Leading examples dealt with (i) event nominals and adverbial modification, Davidson (1967b) and Higginbotham (1983), (ii) propositional attitude ascriptions, Davidson (1968) and Larson and Ludlow (1993), (iii) metaphor, Davidson (1978), and (iv) pronouns, Evans (1977) and Higginbotham (1980). The second sort of response to Davidson's program questioned his grounds for taking a theory of truth to be a theory of meaning. Emphasizing that theories of truth do not assign any entities to sentences to serve as their meanings, and also do not issue in

theorems about what individual sentences mean, Davidson initially rested his claim that they, nevertheless, qualify as theories of meaning on the contention that one who knew that which they stated would thereby grasp the intricate system of connections relating the truth conditions of every sentence in the language to those of every other. It was the systematicity of this knowledge that convinced him that knowledge of an appropriate truth theory T_M for L would be sufficient for understanding its sentences. However, this was a mistake – as was shown in Foster (1976), which demonstrated that that one could know that which was stated by T_M , while systematically misunderstanding its sentences. Although Davidson's "Reply to Foster" (1976), modified the original justification for taking his theories of truth to be theories of meaning, the new justification was shown to fail in Soames (1992). Since then other attempted justifications have been offered – e.g. Higginbotham (1991), (forthcoming), and Larson and Segal (1995) – but the issue is yet to be conclusively resolved.

Today, the Davidsonian program continues as one approach among many to the semantics of natural language. As a historical matter, its larger place in the analytic tradition in America came from the role it played in connecting different strands of the tradition. Its concern with the application of logical techniques to the task of understanding natural language connected it to the technically more sophisticated work of the philosophical logicians. Its emphasis on explaining semantic competence in terms of a complex mapping between the surface structure of sentences and their underlying logical forms connected it to the ideas of linguistically-minded philosophers, intent on making common cause with Chomskian generative grammarians. Davidson's avoidance of the intensional -- and his determination to explicate both the meanings of sentences and the contents of the beliefs they are used to express in terms of the extensional notions of truth and reference, plus the slender attitude of an agent's holding a sentence to be true -- connected him to

Quine's naturalism and "flight from intension." Finally, Davidson's systematic, but logically quite simple, approach to the theory of meaning connected his work to those philosophers – particularly, but not exclusively, in Britain -- who continued to believe that meaning had a central role to play in philosophy, and who were frustrated by the failure of earlier, ordinary language philosophers to provide a fruitful way of studying it.

Kripke and the End of the Linguistic Turn

The most important development in the last thirty years of the twentieth century was the challenge posed to theses (i) – (iv) growing out of the work of Saul Kripke (1980), Hilary Putnam (1970), (1975a), and David Kaplan (1989).

(i) The meaning of a term is not its referent, but a descriptive sense that encodes conditions necessary and sufficient for determining reference.

(ii) Since the meaning of a word is the descriptive sense that a speaker associates with it, meaning is transparent. If two words mean the same, then anyone who understands both should be able to figure that out by checking the sense that he or she associates with them. Word meanings and mental contents are determined by factors internal to agents.

(iii) *Apriori* and necessary truth amount to the same thing. Both are grounded in meaning.

(iv) Metaphysical claims about objects having or lacking properties essentially -- independently of how they are described -- make no sense. Even if a term t designates an object o and ⌈Necessarily t is F (if t exists)⌉ is true, there will always be another term t* designating o for which ⌈Necessarily t* is F (if t* exists)⌉ is false. Since it would be arbitrary to give either sentence priority in determining the essential properties of o, the idea that objects have, or lack, such properties must be relativized to how they are described.

Prior to the Kripke-inspired attack on these doctrines, analytic philosophers typically regarded all possibility to be linguistic possibility, and the necessary, the apriori, and the analytic to be one. Even Quine, who rejected modality, took *necessity, apriority,* and *analyticity* to be different names of the same discredited notion. Those who rejected such austerity typically lumped the three notions together, and continued to view the job of philosophy as the discovery of illuminating conceptual – i.e. analytic-apriori-necessary – truths, through the analysis of meaning.

All that changed with Kripke's introduction of rigid designation, direct reference, and nondescriptionality. His argument that names and natural kind terms are rigid designators, and so not equivalent to descriptions associated with them by speakers, was the entering wedge. He next used rigid designation to rebut Quine's famous objection to essentialism, enshrined in (iv). A rigid designator t of an object o is one that picks out o in all possible circumstances in which o exists. Thus, when t is rigid, the question of whether o has the property expressed by F essentially is equivalent to the question of whether the sentence ⌈Necessarily t is F (if t exists)⌉ is true. The truth values of other sentences, containing non-rigid designators, are irrelevant. Once this was seen, the objection to the intelligibility of essentialism collapsed (Soames 2003b, chapter 14).

With both a nondescriptive semantics and a rehabilitated conception of essentialism in place, Kripke next showed how to generate instances of the necessary aposteriori. If n is a name or indexical that rigidly designates an existing object o, F expresses an essential property of o, and knowledge that o has this property requires empirical evidence, then the proposition expressed by ⌈If n exists, then n is F⌉ is both necessary and knowable only aposteriori. (See Soames 2006.) All of a sudden, the necessary and the apriori were no longer the same, and the idea that one, or both, might arise from something beyond the linguistic became credible.

With this essentialist route to the necessary aposteriori came a distinction between conceivability and genuine possibility – between ways things could conceivably be vs. ways things could really be (or have been). The distinction is typically drawn in terms of possible worlds, or better, possible world-states. For the Kripkean, possible states of the world are not alternate concrete universes, but abstract objects. (See Stalnaker (1976, 1984).) Metaphysically possible world-states are maximally complete ways the real concrete universe could have been – maximally complete properties the universe could have instantiated. Epistemically possible world-states are maximally complete ways the universe can coherently be conceived to be – maximally complete properties that the universe can be conceived of as instantiating, and that one cannot know apriori that it doesn't, or couldn't, instantiate. (See Salmon 1989, and Soames 2003b, 2005 and forthcoming.) These two sets of properties are different. Just as there are properties that ordinary objects could have had and other properties they couldn't have had, so there are certain maximally complete properties the universe could have had – metaphysically possible world-states – and other maximally complete properties the universe couldn't have had – metaphysically impossible world-states. Just as some of the properties that objects couldn't have had are properties that one can conceive them as having, and that one cannot know apriori that they don't, or couldn't, have, so some maximally complete properties that the universe couldn't have had are properties that one can conceive it as having, and that one cannot know apriori that it doesn't, or couldn't, have. These states of the world are epistemically, but not metaphysically, possible. On this picture, the reason empirical evidence is required for knowledge of necessary truths that are knowable only aposteriori is to rule out metaphysically impossible, but epistemically possible, world-states in which they are false.

This was the heart of the philosophical revolution led by Kripke and his allies. By the time it was over, (i) – (iv) had been called into question, and rejected by many. Most important, the decoupling of necessity, apriority, and analyticity enlarged the scope of philosophical inquiry – including metaphysical inquiry about essence – beyond that which could be grounded in the analysis of meaning. The linguistic turn, it appeared, had met its match.

Rawls and the Resuscitation of Normative Theory

A similar transformation occurred at about the same time in ethics, political philosophy, and the philosophy of law. The period from the mid-30s to the early 60s had been the heyday of emotivism and evaluative non-cognitivism. For many years, one of America's most well-known analytic writers in ethics was Charles Stevenson, whose 1937 "The Emotive Meaning of Ethical Terms," and 1944 *Ethics and Language*, had become classics. In these works, he argued that the function of evaluative terms – like *good*, *bad, right,* and *wrong* – was not to describe the world, or courses of action, but to express one's emotional attitude toward them. Sentences containing such terms were not, he maintained, used to make statements that could be true or false, but to express feelings and guide action. As a result, normative theories about the right and the good could not be objects of knowledge, or even rationally justified belief, and so were excluded from the proper domain of philosophy. As Stevenson put it at the end of his famous article, since "*x is good* is essentially a vehicle for suggestion, it is scarcely a statement which philosophers, any more than other men, are called upon to make. To the extent that ethics predicates the ethical terms of anything, rather than explains their meaning, it ceases to be a reflective study." Accordingly, he thought, the only job for the moral philosopher was to explain how evaluative language works. Ethics had been swallowed by meta-ethics.

This view, which had grown more sophisticated in the 50s, was, at the end of that decade, subjected to a powerful objection known as *the Frege-Geach point*, forcefully advanced not only by the British philosopher, Peter Geach, in Geach(1960), but also by the American, John Searle, in Searle (1962). The objection is based on the observation that when evaluative sentences like *that is good* occur as clauses in larger, descriptive sentences, their meanings make systematic contributions to the truth conditions of statements made by utterances of the larger sentences. Since evaluative sentences have the same meanings when used on their own as when they occur as clauses of larger sentences, their meanings cannot be identified with any set of emotional responses accompanying their use, or any action – like commending or guiding choices – that may be performed by uttering them on their own. Thus, the idea that evaluative sentences have descriptive content, or something like it, was revived, facilitating a renaissance in normative theory that was already under way.

One sees this renaissance in the writings of theorists like Joel Fineberg, Richard Brandt, Kurt Baier, and Thomas Nagel from the late 50s through the early 70s. But above all, one sees it in the work of John Rawls (1921-2002) – particularly, "Justice as Fairness" (1958), "The Sense of Justice" (1963), and his classic *A Theory of Justice* (1971). It is hard to exaggerate the impact of this book on the moral and political philosophy of the time. Fully informed by the relevant social science, guided by a plausible and self-conscious methodology, and deeply learned about the conceptual and historical underpinnings of utilitarianism, deontology, contractarianism, equalitarianism and libertarianism, *A Theory of Justice* brought to analytic philosophy the most compelling and systematic study of fundamental normative questions it had ever seen.

The central idea is that a just society is one the basic structure of which would be freely and unanimously chosen by rational, self-interested agents in a fair bargaining procedure for determining the fundamental rules governing their social interaction. The procedure involves the

selection of principles under constraints defined by what Rawls calls *the original position* – a hypothetical situation in which one possesses all relevant knowledge of general facts about human nature and society, while being deprived of any knowledge of one's own abilities, desires, or place in the social order that could lead one to favor principles benefiting oneself. Given these constraints, Rawls argues that two general principles emerge as the basis for a just society – one guaranteeing to each citizen the most extensive set of basic liberties compatible with similar liberties for all, and the other (the so-called *difference principle)* stipulating that social and economic inequalities (attached to positions open to everyone under conditions of equality of opportunity) are to be tolerated only to the extent that the least well-off individuals in the system are better off than the least well-off would be under any alternative system. The elaboration of these principles involves balancing liberty, equality, and utility, while making room for rights, and rejecting classical utilitarianism. Rawls's argument also can be read as justifying a liberal-left (but not too far left), redistributionist version of modern democratic capitalism – a fact that prompted criticisms from both the socialist left and the libertarian right.

The most well-known of these was the libertarian classic *Anarchy, State, and Utopia* (1974), written by Rawls's Harvard colleague, Robert Nozick (1938-2002). In part a negative critique of Rawls and in part a positive alternative, its central idea is that liberty is the dominant political value. For Nozick, the distribution of goods is governed by principles of historical entitlement, which, in contrast to Rawls's end-result principles, are entirely procedural. According to the entitlement theory, any distribution of goods that arises by a series of just steps – including the voluntary exchange of assets by parties entitled to them ("capitalist acts between consenting adults") -- is itself just. Since any pattern of distribution can be disrupted by such voluntary exchanges, this means that no such pattern -- strict equality, the difference principle, total utility,

maximum average utility, or any other -- can be constitutive of a just society. This was Nozick's most provocative conclusion.

Rawls and Nozick brought political philosophy into the mainstream of the analytic tradition, where it continues to be an important focus of attention, as illustrated by Thomas Scanlon's recent *What We Owe to Each Other* (1998). A similar revival, led by Ronald Dworkin's *Taking Rights Seriously* (1977) and *Law's Empire* (1986), has taken place in the philosophy of law. Dworkin, with BAs from Harvard (1953), and Oxford (1955), and an LLB from Harvard Law (1957), succeeded the great legal positivist H.L.A. Hart in the Chair of Jurisprudence at Oxford in (1969), where he soon became known as the chief critic of Hart's positivism – a view according to which legal validity is, in the main, a matter of fidelity to the institutional sources of positive law, and, except at the margins, independent of substantive moral considerations. As opposed to this, Dworkin argues for a theory of "constructive interpretation" in which there are no cases in which the contents of laws, and their applications to particular cases, are, in principle, entirely determined by the routine application of conventional, legal rules – independent of any moral assessment of the consequences of particular applications, and any judgement about how those consequences bear on the social purpose of the laws, and the intentions of those who encated them. Instead, all adjudication is seen as requiring the judge to weigh substantive moral concerns with existing legal history, so as to arrive at the most just and morally desirable principles for achieving the legitimate ends of the law, while accommodating, so far as is reasonably possible, the results of past decisions and existing legal practices. Although this process may seem to allow extraordinary judicial discretion in determining the content of law – to the delight or consternation of partisans of different stripes – Dworkin doesn't view it that way. Insisting that the mix of normative and factual considerations required by his theory determines unique results even in "hard cases," he denies that

judges have the authority to create new law, and charges them with what he admits to be the difficult and complicated task of discovering the unarticulated law that is already there. In all of this, he provides a sophisticated philosophical rationale for the prevailing liberal-left practice of jurisprudence of the past half-century – in much same the way that Rawls provided a rationale for liberal-left understandings of modern democratic welfare-states, with free-market economies. Though no precise Nozick counterpart has yet arisen in opposition, there is no shortage of controversy in which Dworkin, at New York University since 1994, is involved.

A Collection of Specialties

By the end of the twentieth century, analytic philosophy in America, and elsewhere, had broadened to include active research programs on nearly all topics of traditional philosophical concern. In metaphysics, physicalism, the nature of time and space, and problems of material constitution were hotly debated, and at least one full-blown metaphysical system -- that of David Lewis (1941-2001) – commanded center stage. In epistemology, the Gettier problem -- Gettier (1963) -- generated a vast literature on what, beyond true, justified belief, constitutes knowledge. One central idea – espoused in such works as Goldman (1967) and Dretske (1981) – is that knowledge is true belief that is caused in the right way. Another innovation was contextualism -- pioneered in Cohen (1986), (1988), (1998), and DeRose (1992), (1995), (2002), and adopted in Lewis (1996). According to this view, standards of justification incorporated in the predicate *know* are sensitive to variations in the context of utterance, with important consequences for a variety of epistemological problems, including those posed by skepticism.

In the philosophy of mind, lively and intense discussion centered around a cluster of related topics: functionalism about mental states – e.g., Putnam (1967a), (1967b), Fodor (1968),and Lewis (1980) – the computational theory of mind – e.g. Fodor (1975), (1979), (1983) and Searle (1980),

(1984) – scientifically acceptable notions of mental content – e.g. Burge (1979) and Fodor (1987), (1990) -- intentionalism (the view that all there is to the content of any mental state is its representational content) -- e.g., Harman (1990), Tye (1995), Dretske (1995), and Byrne (2002) – the controversy over phenomenal qualities (so called *qualia*) – e.g., Nagel (1974), Shoemaker (1982), (1994), and Thau (2002) -- and the nature of consciousness – e.g., Lycan (1996). Ethics saw vigorous debates over utilitarianism – e.g., Scheffler (1982), and Kagan (1989) – as well as the development of sophisticated meta-ethical theories – e.g., Harman (1977) and Gibbard (1990), (2003). In the philosophy of science, nothing attracted as much attention as Thomas Kuhn's *The Structure of Scientific Revolutions* (1962). However, the true sequel to the general conception of science espoused by the logical empiricists was probably the marriage of semantic realism with pragmatic verificationism found in the constructive empiricism of Bas van Fraassen's *The Scientific Image* (1980). Since then, overall characterizations of the scientific enterprise have largely been replaced by more specialized, and highly focused, studies of particular problems of individual sciences.

This is only a small sample of the immense range and variety of topics under active investigation by analytic philosophers in America. With a few exceptions – most notably religion, and perhaps also aesthetics – it is doubtful that any philosophical topics have ever received as much scrutiny as they do now. Even in religion and aesthetics, the situation has improved with the work of such distinguished analytic philosophers as Alvin Plantinga, William Alston, and Peter van Inwagen in the philosophy of religion, and Kendall Walton, Arthur Danto, Stanley Cavell, and Paul Ziff in aesthetics. If there is a systemic problem with analytic philosophy today, it does not lie in a neglect of subject areas, or in a paucity of approaches for dealing with different problems, but in the difficulty, in an age of unprecedented abundance, of formulating unifying synthetic overviews of the sort that philosophers have traditionally been known for.

Quality, Quantity, and Identity

At the beginning of the twentieth century, American philosophy was, with the exception of a solitary genius (Peirce) working alone in Milford Pennsylvania, essentially the philosophy of the Harvard department – then dominated by the pragmatist, William James, the absolute idealist, Josiah Royce, and the realist, Ralph Barton Perry. Analytic philosophy did not yet exist in America, but its precursor, pragmatism, was at its zenith. A half-century later, in the early 50s, the last of the great pre-analytic pragmatists – C. I. Lewis – retired from Harvard, leaving the department in the capable hands of Quine -- the first, world-class, analytic philosopher in America. Although Harvard was still the center of things, and would remain so for another two decades, arrivals from Europe, supplemented by a growing number of home-grown products, had established firm analytic footholds at UCLA, Berkeley, Chicago, Columbia, Michigan, Cornell, Brown, the University of Pennsylvania, and elsewhere. Twenty years later, in the mid-70s, philosophy in America was analytic philosophy, and the baton of leadership had been passed to the Princeton department of Saul Kripke and David Lewis.

By then, the vast expansion in higher education had produced a surge in the number of professional philosophers, and the rise of many competing centers of philosophical excellence -- including the powerful department at Pittsburgh, and the small, but increasingly influential, department at MIT. These trends continued through the turn of the new century, when two new departments -- NYU and Rutgers — rose to the top, while the number of philosophers continued to grow. By then, the number of strong departments with highly effective graduate programs had risen to about twenty, with a great deal of impressive philosophical talent spread far beyond that. Philosophers were now thoroughly professionalized, and their work – the primary audience for which was other professional philosophers – was much more specialized.

Although the appearance of philosophical genius is unpredictable, and can hardly be quantified, the overall quality of philosophy done throughout the country appears to be higher than ever before. What is truly staggering, however, is the increase in quantity. As noted earlier, the membership reported by the American Philosophical Association rose from 747 in 1940 to 5,125 in 1980. In 1990 it was 8,336, in 2000 it was 10,474, and in 2006 it reached more than 11,200. These are not simply teachers. A large number are active in research, and publish regularly. Thus, it is not surprising that the number of outlets for publication in philosophy has also grown to accommodate them. For example, the *Directory of American Philosophers 2004-2005* reported 267 journals publishing philosophy in the United States, and 168 Philosophical Societies.

Even these numbers are misleadingly low. To focus only on the United States is to falsely presuppose that there is today a distinctively American philosophical community, producing it's own recognizable type of philosophy. There isn't. Philosophy in America today is, overwhelmingly, philosophy in the analytic tradition. However, there is no longer an American strain of the tradition that is substantially different from what is found in Britain, Australia, New Zealand, Canada, or even in the increasingly large and numerous enclaves found in non-English-speaking countries to which analytic philosophy has spread. The size and influence of philosophy done in America is, to be sure, considerably greater than that done elsewhere. But this philosophy is by no means done only by Americans. More and more, there is a single, integrated community of analytic philosophers from different countries, within which individuals move back and forth. America is the center of the community, but it doesn't define it.

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