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David Ingram Loyola University Chicago, dingram@luc.edu

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Chapter 12 [revised- Dec. 2009]

Late Pragmatism, Logical Positivism, and Their Aftermath

David Ingram

Introduction

Developments in Anglo-American philosophy during the first half of the 20th Century closely tracked developments that were occurring in continental philosophy during this period. This should not surprise us. Aside from the fertile communication between these ostensibly separate traditions, both were responding to problems associated with the rise of mass society. Rabid nationalism, corporate statism, and totalitarianism (Left and Right) posed a profound challenge to the idealistic rationalism of neo-Kantian and neo-Hegelian philosophies. The decline of the individual – classically conceived by the 18th-century Enlightenment as a self-determining agent – provoked strong reactions. While some philosophical tendencies sought to re-conceive the relationship between individual, society, and nature in more organic ways that radically departed from the subjectivism associated with classical Cartesianism, other tendencies sought to do just the opposite. This is one way of putting the difference between the two major movements within Anglo-American philosophy that I will be discussing in this essay.

American pragmatism, which achieved the pinnacle of its popularity prior to 1940, traces its lineage back to empiricism as well as German Idealism. With the exception of William James, who is best known for his defense of radical empiricism, the other two important 20th century pragmatists, John Dewey (1859–1952) and George Herbert Mead (1863–1931), embraced a post-metaphysical version of Hegelian dialectics that was starkly antithetical to both Cartesian rationalism and atomistic empiricism. By contrast, logical positivism, which maintained a lively hold on Anglo-American thought as late as the sixties, reacted against Hegelian philosophy in all its forms, and accordingly resurrected both the Cartesian method of conceptual (logical) analysis as well as its atomistic ontology.

In this respect, positivism is closer in spirit to Husserlian phenomenology and French structuralism, while pragmatism is closer in spirit to Heideggerian existentialism and its French progeny (the outstanding exception being Sartre's early Cartesian existentialism). As a general rule, the pragmatists' embrace of methodological holism served as counterpoint to the positivists' endorsement of methodological individualism. However, in contrast to their continental counterparts, pragmatists and positivists shared the naturalistic approach to philosophical explanation that had been the hallmark of Anglo-American philosophy since Bacon.

Pragmatism

In order to understand the complex relationship between Anglo-American philosophy and continental philosophy during the inter-War years, we would need to trace the genealogy of logical positivism and American pragmatism back to their late-19th-century continental antecedents. This dimension has been so thoroughly explored by others that little need be said here about this fascinating chapter in Western philosophy.¹ <u>Aside from some notable exceptions – such as Husserl's positive reaction to</u> <u>some of William James's earlier ideas concerning experiential psychology (including</u> <u>Jame's notion of an experiential "fringe," which Husserl credits as a precursor to his own</u> <u>notion of "horizon"), --</u> the reception of American pragmatism by English, German, and French philosophy in the early decades of the 20th century was clouded by prejudicial misunderstanding that was partly abetted by the very philosopher who gave this movement its name. The German translation of William James's *Pragmatism: A New Name for Some Old Ways of Thinking* (1907) by Wilhelm Jerusalem in 1908 catapulted pragmatism into the central topic of discussion at the World Philosophical Congress held at Heidelberg that very same year. James's assertion in that book that "the true ... is only the expedient in the way of our thinking"² – led many of his German contemporaries to dismiss this "new fad in philosophy ... from the land of the dollar" as (in the words of one critic) a degradation of "the truth to the level of expediency, just as in days gone by, a similar way of thinking was imported to us from the land of shopkeepers [i.e., Britain]

preaching the reduction of morality to utility."³ The crassest misrepresentations of pragmatism spawned by this untimely reception have been the subject of a withering critique by Hans Joas. These include the view that pragmatism

reduces truth to utility;

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¹ See Joas, *Pragmatism and Social Theory*.

² James, *Pragmatism*, p. 222.

³ Gutberlet, "Der Pragmatismus," *Philosophisches Jahrbuch* 21 (1908), pp. 437, 445, quoted in Joas, p. 98.

endorses Cartesian subjectivism; and

represents a mishmash of Ernst Mach's empirico-criticism, Friedrich Nietzsche's perspectivalism and will to power, and German *Lebensphilosophie*.⁴

These misconceptions about pragmatism continued to inform German philosophy for the next four decades, as can be seen from Max Scheler's and Horkheimer's unsympathetic comments.⁵ Strikingly absent from this reception is any mention of the profound impact

⁴ Ibid., p. 99.

⁵ In his book *Erkenntnis und Arbeit* (1926), Scheler reduced pragmatism to a "knowledge of productivity," which he distinguishes from a knowledge of culture (*Bildungswissen*) and a knowledge of redemption (*Erlösungswissen*). More tellingly, he equated this knowledge of productivity with a "knowledge of domination" that in his mind was largely indistinguishable from the kind of narrow instrumentalism that characterized positivism. Scheler's interpretation of pragmatism served as the dominant reference point for Max Horkheimer's dismissive treatment of Dewey's philosophy in *The Eclipse of Reason*, written almost twenty years later. Although Horkheimer takes note of the "many schools of thought" that have criticized pragmatism, he himself cites only Hugo Münsterberg's *Philosophie der Werte* and Scheler's "Erkenntnis und Arbeit" in [Scheler's] *Wissenformen und die Gesellschaft*" (*Eclipse of Reason*, p. 170).

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of Charles Sanders Peirce on James's thought.⁶ Indeed, Peirce's signal contribution to the social philosophies of James's most prominent successors in the pragmatist tradition (most notably Mead and Dewey) consists in his anti-Cartesian, anti-phenomenalist linkage of meaning and knowledge to *action*. More precisely, it was Peirce's genetic linkage of *instrumental* action undertaken by a *single* intelligent being to *social* action undertaken by a *community of knowers* that would later inspire the progressive politics of Mead and Dewey. So central to the thought of Mead and Dewey (and, to a lesser extent Karl Popper) is this linkage of reflective natural adaption and social community that it would later ground their view that *free and fully inclusive democracy* is central to the full development of the kind of creative intelligence that is so necessary for *progressive* problem solving of any kind.

Peirce expressly derived his notion of "pragmaticism" from Kant's use of *pragmatisch* in the *Critique of Pure Reason* (II, ch. 2, sec. 3) and the *Foundations of the Metaphysics of Morals* (Sec. II), where Kant equates it with *instrumental (prudential) action* guided by hypothetical (conditional) rules, in contrast with moral (practical) action guided by categorical (unconditional) imperatives. Peirce himself was mainly interested in showing how the *meanings* of many if not most general ideas (or *signs*) could be interpreted in terms of general (counterfactual) *conditionals*. Such conditionals prescribe the performance of an indefinite number of instrumental (experimental) actions that achieve definite consequences. Thus, the meaning of "this diamond is hard" would be

⁶ For further discussion of Peirce, see Douglas R. Anderson, "Peirce and Pragmatism: American 'Schellingeanism," in *History of Continental Philosophy. Volume 2: The Revolutionary Age and/as Responses to Hegel*, ed. Daniel W. Conway.

explicable by a statement of the sort "If one *were* to scratch, illuminate, etc., this substance, then consequences (such as failure to scratch, darken, etc.) *would* occur."

Especially important for later pragmatists is the way in which Peirce connects this account of meaning to an account of knowledge, truth, and logical probability. According to Pierce, the meanings of our words are constant because they signify *fixed beliefs*. These beliefs are acquired and confirmed in experimental situations in which the outcomes are at best statistically probable but not absolutely certain. Probability, in turn, designates a relative frequency, the average deviation from which diminishes in proportion to the number of trials. The upshot is that the constancy of a sign's meaning is also relative to experimentally confirmed statistical frequencies produced over time. Indeed, so is truth. For on Peirce's account, it is the experimental method – not tenacity, authority, or *a priori* reasoning – that enables us to approximate a *lasting consensus* in the fixation of belief and thereby eliminate deviations that produce doubt. More importantly, it is the experimental method as applied by an indefinite *ideal community* of inquirers that gradually enables us to approximate (if not reach) a true and lasting consensus over time regarding all of our beliefs, moral as well as cognitive.

Peirce's insights regarding knowledge and meaning proved seminal for Dewey and Mead. Dewey began his career as a Hegelian. During the period from 1890 to 1900, his embrace of Hegelian idealism, with its notion of conceptual holism and conceptual dialectic (or development) traversing stages of contradiction (analytic opposition and distinction) and resolution (synthetic unification and identification), underwent a profound naturalistic transformation. Under the influence of Darwin's theory of evolution, Dewey translated this dialectic into the idiom of biological organism and growth as a progressive process of environmental adaptation and change. His deeper exposure to Peirce's and James's pragmatism around the turn of the century added a third element to this equation: *instrumentalism* (or "experimental idealism" as he then formulated it). As we shall see, Dewey's instrumentalism bears a striking resemblance to certain aspects of Heidegger's existential phenomenology in its emphasis on the holistic and situational nature of human understanding (or *inquiry*, as Dewey dubbed it). For Dewey, human understanding involves an embodied attunement to an environment that is already meaningful (circumscribed by language and community) but never determinately so, thereby calling forth an on-going process of active interpretation (*reconstruction*) in light of new questions, new problems, and new possibilities.

While Dewey was interested in working out the implications of instrumentalism for a theory of democracy and education, Mead was chiefly preoccupied with applying Peirce's anti-Cartesian insights about the communal genesis of knowledge and meaning to the new fields of developmental and social psychology. As with Dewey's pragmatism, Mead's *symbolic interactionism*, which he also called *social behaviorism*, owes a great deal to Hegel's dialectical philosophy, especially its account of self-certainty, conceived as a process of acquiring recognition from (internalizing the viewpoint of) another. For Mead, one becomes a full self – an "I" who as *subject* can reflectively relate to itself as *object*, or "me" – only in the course of proceeding through progressive stages of social and *symbolic interaction*. As socialization proceeds, so does individuation. Ultimately, the capacity of the self to internalize the impersonal and abstract role of language itself – signified by the human community (or *generalized other*) – enables the self to critically free itself from the particular social roles constitutive of itself as a nexus of social habits (or "me"), thereby enabling it to become a uniquely creative inventor of its own values and beliefs – in short, of its own identity as an "I."

George Herbert Mead⁷

Mead's entire career was informed by the Hegelian insight that "the whole is more concrete than the part."⁸ The rather meager corpus of essays and fragments that constitute Mead's *oeuvre*, most of which have been posthumously published in various collections, repeatedly attest to the power this idea had on his thought. Once again, it is Peirce's notion of a community of interpretation as pivotal for understanding meaning and belief that links this idealistic notion to an account of social behavior. Darwin's

⁷ Mead was born in South Hadley, Massachusetts, on February 27, 1863 and died in Chicago in April 26, 1931. He received his BA from Oberlin College (1879–83) and began doing graduate work at Harvard in 1887, although he never wrote a dissertation. In 1893 he was appointed professor of philosophy at the University of Chicago, where he served in that capacity until his death. His main intellectual influences were Adam Smith, Hegel, and Darwin. Among his most important books are *The Philosophy of the Present* (1932), ed. Arthur E. Murphy; *Mind, Self, and Society* (1934), ed. Charles W. Morris; *Philosophy of the Act* (1938), ed. Charles W. Morris; *Selected Writings: George Herbert Mead* (1964); and *The Individual and the Social World: Unpublished Work of George Herbert Mead* (1982).

⁸ Mead, *Selected Writings: George Herbert Mead*, p. 166.

Expression of the Emotions in Man and Animals provided Mead with an evolutionary model for understanding the rudimentary social psychology of animal behavior. Meanwhile, Dewey's important work on the reflex (stimulus response) arc, which in many ways anticipated Gestalt psychology as well as the phenomenology of perception and behavior developed by Merleau-Ponty a half century later, provided him with a non-atomistic (non-mechanistic) model of organic behavior, understood as an interpretative response that internalizes and reconstitutes a stimulus within a learning arc.⁹

Mead is chiefly concerned to show how mind and self emerge in the course of traversing logical phases in the development of social and symbolic interaction. The most primitive phase – "the conversation of gestures" – can be observed in animals, as when a dog growls in order to ward off another dog. Darwin regarded such gestures as expressions of inner emotional states, not as forms of social interaction. For Mead, the gesture possesses significance for the dog toward whom the gesture is directed. The gesture's capacity to stimulate behavior causally depends on its being *significant* to its recipient. As with Dewey, the stimulus only becomes effective by being constituted and interpreted as significant. Here, however, the significance in question is established socially, as a type or pattern of response (coordination) that comes to be shared.

So construed, there need not be anything like a "consciousness of meaning" on the part of the dogs in question regarding the significance of their growling. Meaning and language first emerge when the gesture becomes a "significant symbol." That happens

⁹ Dewey's "The Reflex Arc Concept in Psychology," was published in the journal *Psychological Review* in 1896. In 1942 a committee of seventy psychologists named it the most significant contribution ever published in the journal.

when the dogs learn how to use their growling gestures purposefully. The gesture of growling becomes mutually meaningful once each dog "internalizes" the fact that growling calls forth a specific behavior in the other dog. In order for this to happen, each dog must take the attitude of the other dog toward his own behavior. That is, as a dog I imagine myself being the other dog.¹⁰ In imagining myself thus, I learn to respond to my own act, to reflect on my*self*.

Mead's fascinating account of infantile role-playing connects the interactive genesis of meaning with the social, moral, and cognitive development of the self. In *play* a child imagines herself playing the roles of her parents or other significant others. She conducts a conversation with herself, playing different roles, the meaning of which she herself more or less freely constitutes (albeit, with the guidance of some incipient models). When play becomes a *game* involving other children, the child has less freedom to improvise, for here the roles have to be negotiated and agreed upon. In order to do this, the child has to learn to take up the attitude of all her playmates. The game of tag, for example, only works if the child who is "it" simultaneously adopts the attitude of all the other players (in effect, playing out their assumed roles in the interiority of her mind).

¹⁰ Mead's reference to the act of seeing oneself through the eyes of the other not only paraphrases Hegel's famous account of self-consciousness in the *Phenomenology* but it recalls Adam Smith's belief that in moral matters "[w]e suppose ourselves spectators of our own behavior, and endeavor to imagine what effect [our own passions and conduct] would, in this light [i.e., regards our feelings of approval or censure] produce upon us" (*The Theory of Moral Sentiments*, p. 112). It is this reflexive role-playing and attitude-taking competence that founds the ability to participate in all other social groups, from the most local of neighborhood clubs to the most all-inclusive humanity. In becoming social, the child learns to adopt the standpoint of the *generalized other*. Ultimately, it is by internalizing the attitude of the community in which she belongs that she internalizes the moral responses of that community and becomes a "principled" person. But the self does not lose its individuality in becoming so socialized. On the contrary, the capacity to adopt an abstract point of view (that of the community or of humanity at large) enables one to critically objectify and freely distance oneself from the multitude of particular roles one has internalized as "me."

Individuals, then, are the outcome of freely reconstituting and reinterpreting the various habituated social roles within their repertory. Qua "me," the individual is a unique (and in that sense individual) confluence of sedimented social roles that one can recall to memory (as a part of one's already scripted autobiography). However, once recalled to memory and made an object to oneself through adopting the attitude of a *second-person*, the "me" can be set in dialogue with a more abstract aspect of the self, which is formed by taking the role of a *third-person* observer – the *generalized other* (representing the attitude of the social group taken as a whole).

In contrast to the "me," which is the unconscious repository of social norms, the "I" represents that part of the self who reacts almost impulsively against (or towards) the attitude of the community and tries to change it. Unlike the "me," the "I" cannot be reflectively known as an object from the perspective of the second-person. Instead, as a kind of instinctual or imaginative spontaneity, it deploys the critical admonitions of the

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conventional generalized other (the superego, in Freudian parlance) and projects these onto the image of an ideal, utopian community in which the "I" along with all other "I"s achieves perfect freedom and fulfillment. So construed, the "I" is the source of two kinds of moral demands: a demand for *moral autonomy*, which finds expression in the individual's assertion of its rights against the conventional norms and laws of the community, and a demand for *self-realization*.

In sum, the self is a dialectical movement, in that it becomes increasingly free and individuated only to the extent that it expands the circle of recognition from the secondperson to the third-person, and from the conventional third-person to the ideal (universal) third person. In this respect, individuation and socialization mutually condition one another through the inextricable identity linking social dependency and individual autonomy. Society and individual realize one another.

John Dewey¹¹

¹¹ Dewey was born in Burlington, Vermont on October 20, 1859, and died in New York City on June 1, 1952. He received his BA from the University of Vermont (1875–79) and received his PhD from Johns Hopkins University in 1884. He was appointed professor of philosophy at the University of Michigan until 1894, when he accepted an appointment at the University of Chicago. He finished his career at Columbia University in New York City (1905-1939). Charles Peirce (whose lectures on logic he attended while at Johns Hopkins) and the neo-Hegelian idealism of George Sylvester Morris were early influences during his graduate studies. Later influences Although logic and epistemology form the core of Dewey's pragmatism, they acquire a distinctive social and political significance in his writings that recall Mead's analysis of the ideal trajectory of socialization and individuation, embeddedness and emancipation. For Dewey, inquiry necessarily involves a process of critical evaluation that engages all aspects of our social being. As with Peirce, experimental inquiry is a communal activity whose full potential is only realized in democracy, understood as a critical, egalitarian communication of the experimental inputs of each and every member of the community. So construed, community and democracy primarily function as social instruments for problem solving.

A brief glance at some of Dewey's major works – *Logic: The Theory of Inquiry* (1938), *Art as Experience* (1934), *Democracy and Education* (1916), *Experience and Nature* (1925) – confirms this assessment. What Dewey means by logic is a general theory about the rules governing the formation of concepts, judgments, and inferences in experimental situations; it is a complete theory of human thought and reasoning conceived in instrumental terms. From an evolutionary point of view, instrumental activity is the means by which humans adapt to and change their environment (and thereby change themselves). Phenomenologically speaking, humans are not just spatially inserted into the world as if they were things. Rather, they constitute the world they inhabit; that is, their interests and concerns provide selective reference points for interpreting their surrounding situation as a contextual, meaningful whole. Inquiry is

included William James and his colleague at the University of Chicago, George Herbert Mead.

initiated when the situation no longer presents itself as a determinate and coherent whole.

Biologically speaking, the human organism experiences a disruption of adaptive functioning, a disequilibrium with respect to its environment as well as with respect to itself. Re-establishing harmony requires *reconstituting* the situation (and therewith oneself and one's experience) in a logical succession of developmental stages. Stage one involves reinterpretation (thoughtful redescription) of a problematic situation that determines what might or not be relevant; stage two consists in formulating solutions to the problematic situation that take the form of instrumental hypotheses; stage three concretizes (further determines and delimits) the range of possible solutions by sifting through factual observations that in turn suggest new "ideas" or ways of resolving the problem; stage four deploys "reasoning" to articulate and define ideas in relationship to one another by means of propositions and inferences; and the fifth and final stage culminates in an experimental testing of the ideas so developed. If they prove successful, then we are warranted in asserting them as "true" judgments just so long as they continue to effect an operationally successful (existential) correspondence between the questions posed by the situation and the answers posed by the inquirer.

The nature of inquiry not only incorporates critical evaluation of what, in a problematic situation, is important to us – relative to our needs, desires, feelings, and interests – but it provides a mechanism for reconstituting these very concerns. In other words, inquiry constitutes the very contents of our moral life, and it constitutes them within a continuous process of education and growth. The reference to growth has teleological import: indeed, for Dewey, "growth itself is the only moral 'end'."¹² The

¹² Dewey, *Reconstruction in Philosophy*, p. 177.

proper aim of education is thus to facilitate growth, by enabling the formation of intelligent habits of thought and behavior. These, in turn, are teleologically directed toward the resolution of conflicts – social as well as natural. While complete integration with one's environment is never achievable, it does point to the importance of joining with others in peaceful democratic community in furthering the social and political conditions that conduce to mutual growth. Social and political arrangements that are premised on a false individualism (or false totalitarianism) violate these conditions; as do any arrangements that generate social inequalities and conflicts (or authoritarian solidarities).

Dewey's own faith in a new liberalism reconstructed along the lines of a democratic and scientific socialism recalls Mead's discussion of the "emancipatory" trajectory of *genuine* socialization . In many respects, Dewey's liberalism – as developed in *Liberalism and Social Action* (1935) and *Individualism: Old and New* (1929) – harks back to John Stuart Mill's appeal to Humboldt's romantic paean to "individuality," which in turn recalls the Feuerbachian Hegelianism of the young Marx that proved so compelling to members of the Frankfurt School of critical theory. Central to this understanding is a belief that traditional liberalism and theoretical science are caught up in a "dialectic of enlightenment," to use Adorno and Horkheimer's expression. According to Dewey, the classical liberalism of Locke emancipated the individual from absolutist forms of government, but only at the expense of dissolving the individual into an "atomistic" ego, whose liberty was seen as an innate endowment cut off from society. Such atomistic individualism informed the second, utilitarian wave of 19th-century liberalism where, following Bentham's teachings (adopted from Adam Smith), it

entrenched itself in the form of *laissez-faire* economic liberalism. The result, correctly diagnosed by Marx, was a contradiction between a socially and scientifically organized form of industrial capitalism, on one side, and an individualistic legal conception of private property, on the other. Here, the individual is but an alienated, fragmented, and truncated self – a mere cog in a capitalist machine that operates according to an equally one-sided (socially detached and anarchic) instrumental rationality, dominated by scientific, technological, and managerial specialists who have no connection with the "social whole."

In Dewey's opinion, the emergence of a new corporate (industrial) capitalism signals a crisis of liberalism, in which the full flowering of liberalism's own ideals of freedom, individualism, and reason run up against a new form of economic, political, and social domination. Exit from this crisis will come neither from piecemeal reform nor violent revolution. Salvation, for Dewey, will rather come from harnessing the older method of democratic discussion to the newer method of scientific experimentation, now conceived as an all-inclusive activity of social intelligence. Properly conceived, social science does not merely discover and apply timeless social laws for purposes of prediction and control, but clarifies concrete social problems with the aim of critically evaluating and altering existing social patterns. Its criticism of social ideologies (old habits and prejudices) serves to raise social consciousness and enlighten transformative democratic practice. Reconstructed as a radical social(ist) democracy, the new, scientifically enlightened liberalism will critically integrate and reconstitute the material needs of producers and consumers in the direction of fulfilling higher-order social and spiritual needs.

Positivism

Given Rudolf Carnap's dismissal of Heidegger's philosophy and Bertrand Russell's negative caricature of German philosophy *in general* (not to mention his sharp criticism of James's philosophy), we might be forgiven the all too easy temptation to oppose logical positivism and analytic philosophy to pragmatism.¹³ Yet, despite the fact that positivism and pragmatism have somewhat different pedigrees (British empiricism versus German Idealism), methods (individualism versus holism), and projects (analyzing abstract concepts with universal scope versus interpreting concepts against the background of concrete historical practices, establishing the indubitable certainty/truth of beliefs versus describing their social and historical genesis), their respective practitioners share much in common. Both embrace some form of naturalism; preferring scientific and logical approaches, they disdain the use of transcendental methods of philosophical introspection that proved so indispensable to their continental counterparts. They also incline towards experimentalist accounts of meaning and knowledge. Given this convergence, we should not be surprised that positivist and post-positivist thinkers such as Ludwig Wittgenstein, Karl Popper, Wilfred Sellars, Nelson Goodman, and W. V. O.

¹³ For a discussion of the Carnap-Heidegger relation, see Michael Friedman and Thomas Ryckman, "Analytic and Continental Traditions: Frege, Husserl, Carnap, and Heidegger," in *History of Continental Philosophy. Volume 3: The New Century*, ed. Keith Ansell Pearson and Alan D. Schrift.

Quine characterized themselves (or were characterized by others, such as American pragmatist Charles W. Morris) as pragmatists. Indeed, Dewey himself co-edited a book with several noted logical positivists and even contributed an article to that volume;¹⁴ and as they migrated to the United States, logical positivists tried to enlist Dewey's philosophy in their own cause.

Logical positivism is an expression coined by Herbert Feigl and A. E. Blumberg in 1931 to describe the ideas of the Vienna Circle, whose most important associates – including Carnap, Feigl, Otto Neurath, Hans Reichenbach, and Gustav Bergmann - later immigrated to England (where they were sympathetically received by the reigning analytic philosophy made popular by Wittgenstein, Russell, and A.J. Ayer) and the United States (where they transformed or undermined the prevailing pragmatist ethos). Logical positivists were strongly motivated by a quest for logical clarity and epistemic certainty. These logical and empirical concerns were brought together under a single program – the so-called "verificationist" theory of meaning that had been advanced by Wittgenstein in his Tractatus (1921). Wittgenstein intended his theory as a criticism of any philosophy that deviates from the narrow logical task of "showing" how our language means, or "pictures" a world of "atomic facts," but its immediate effect was to consign all non-factual propositions (propositions whose truth or falsity could not in principle be verifiable by observation) as "meaningless." The results were deeply disturbing and paradoxical: not only were the evaluative and expressive statements of ethics, religion, metaphysics, and aesthetics suddenly consigned to practical irrelevance,

¹⁴ See Dewey, "Unity of Science as a Social Problem," in Neurath, Carnap, Dewey, et al., *Encyclopedia and Unified Science.*

but (as Wittgenstein ironically noted) so were the propositions of philosophy that asserted the verificationist theory of meaning. Indeed, the specter of Hume's skepticism regarding induction that the school had sought to exorcise reappeared with a vengeance once it became clear that the general law-like propositions of science whose truth, as pragmatists had taught, could never be fully verified, were equally meaningless on this account.

Despite the challenges that verificationism posed to philosophy and science (see below), logical positivists believed that the nomological method of causal explanation and the inductive method of causal discovery were, taken together, the only methods for grounding knowledge and meaning. Consequently, they subscribed to a reductive, unified view of knowledge that sharply contrasted with the logical distinction between natural and human sciences that neo-Kantians such as Dilthey had popularized a generation earlier. In short, positivists maintained that the historical, sociological, and psychological sciences must not deviate from the experimental and nomological (or "covering law") methods of causal explanation exemplified by the natural sciences on pain of being rendered totally "unscientific" and meaningless.

Verificationism and reductionism – the two shibboleths of logical positivism – would eventually come under attack from philosophers, such as Wittgenstein, Popper, Sellars,¹⁵ Goodman,¹⁶ and Quine¹⁷ – who had considered themselves to be sympathetic to

¹⁵ Wilfrid Sellars (1912–89) firmly rejected epistemological foundationalism. One of the first philosophers to integrate Anglo-American analytic philosophy and Austro-German logical positivism with American pragmatism and Hegelian thought, he devoted much of his life to reconciling the naturalist, "scientific image" of reality with the commonsense (or "manifest") image of the same held by average persons.

Key to this attempt, however, was his non-reductive distinction between the (naturalistic) space of experiential genesis via causal processes and (linguistic or propositional) space of belief formation and reasoned justification. Today he is considered by many to be the founder of inferential semantics, whose leading contemporary torchbearer is his former student, Robert Brandom, who is also a self-described Hegelian pragmatist. Among Sellars's most important papers are "Empiricism and the Philosophy of Mind" (1956) and "Philosophy and the Scientific Image of Man" (1962).

¹⁶ Nelson Goodman (1906–98) made significant contributions to mathematic logic, the theory of induction, and aesthetics. Goodman believed that a nominalistic calculus of individuals should be the starting point for reconstructing mathematical logic (which he and Quine held, following American pragmatist premises, could not be distinguished in principle from empirical science) rather than set theory (this is the basis for Goodman's variant of "mereology." He also held, against Hempel, that causal (law-like) generalizations could not be distinguished from accidental generalizations (thereby re-formulating the Humean problem of induction), at least in everyday contexts in which the use of predicates is not sharply fixed by formal stipulation. Goodman's hypothetical example of "grue," which applies to all green things examined before a certain time t and to all blue things examined after t, shows that an apparent law-like generalization that "all green things are grue") the generalization that "Emeralds are blue" after t, thereby showing that anything can confirm anything depending on our accidental methods of classifying types. Finally, Goodman's most

some aspects of the positivist cause. Carnap and Neurath had argued (against Moritz Schlick) that scientific laws were not merely inferential rules connecting singular factual statements but were themselves factual claims subject to potential verification or falsification. But how? Were such generalizations verified (falsified) by experience, as many positivists thought? As Neurath (followed by Sellars and Quine) pointed out, only a proposition can verify (justify) a proposition. Were such generalizations then translatable as sets of first-person observation statements (protocol statements), as Carnap suggested? If these statements were formulated as dated observations of physical objects, such as tables and rooms, then such reports would be an unreliable basis for confirmation or falsification, since it might be doubted whether these observations were veridical. On the other hand, if they were formulated as dated observations of private sensory

famous work – in the area of aesthetics – showed how art and the aesthetic could be understood as creating new ontological worlds (or vocabularies for perceiving and describing reality) in a way that converged with Heidegger's own views about the ontological import of the work of art. Goodman's most important student at Harvard was the neo-pragmatist Hilary Putnam. Among his most famous works are *The Structure of Appearance* (1951), *Fact, Fiction, and Forecast* (1955), and *Ways of Worldmaking* (1978).

¹⁷ Norman Van Orman Quine (1908–2000) is most famous for attacking the analyticsynthetic distinction and with it, the verificationist theory of meaning, the two pillars of logical positivism (see below). His most important books include *From a Logical Point of View* (1953), *Ontological Relativity and Other Essays* (1969), and *The Ways of Paradox and Other Essays* (1976). experiences ("here, now, blue" as Schlick insisted), then their subjective certainty would be purchased at the cost of their un-translatability into objective statements.

Post-Positivism

For post-positivists such as Quine and Popper, the paradoxes surrounding verificationism were best resolved by jettisoning the theory. Like the pragmatists, they argued that scientific generalizations are not constructed out of particular experiences (induction) but are experimental hypotheses formulated by prior theories, which are themselves the products of imagination. Quine's attack on the analytic-synthetic distinction in "Two Dogmas of Empiricism" (1951) was especially effective in undermining the positivist distinction between necessary (analytic or identity) statements concerning logical meaning and contingent (synthetic or empirically informative) statements concerning experience and behavior – a distinction Dewey himself had vigorously criticized many years earlier in his 1938 *Logic*, when he observed that "[w]hen a linguistic form is separated from the contextual matter of problem inquiry it is impossible to decide of what *logical* form it is the expression." Accordingly, the dogma of a theory- (concept- or meaning-) independent experience that could stand as an independent standard for constructing and testing a theory was laid to rest.

Karl Popper

For his part, Popper held that induction could not confirm scientific hypotheses because (as Peirce had seen) they refer to an indefinite number of counterfactual tests. The "necessary connection" that distinguishes causal relations from non-necessary but relatively invariant correlations of past events – the problem of induction diagnosed by Hume – can only be articulated when such hypotheses are formulated as counterfactual conditionals of the form: "Had y not happened, z would not have happened." Because scientific hypotheses are counterfactual, they cannot be definitively verified by past and present experiences (events) but can only be falsified with reference to present and future experiences. Hence, for Popper, the true test for the meaningfulness of a scientific theory is its capacity to generate potentially falsifiable hypotheses. But this attempt to save positivism – by replacing verification with falsification – also fails, since as Quine later argued (and Popper himself conceded), disconfirming tests do not suffice to falsify a given hypothesis so much as place in doubt a system of interconnected supporting hypotheses. Which hypothesis we choose to eliminate in order to restore coherence is thus not determined exclusively by our observations. Our epistemic commitments – for instance, how central a hypothesis is within the web of our otherwise workable belief system – also play a role. This pragmatic insight would later inspire Thomas Kuhn's conception of scientific revolutions,¹⁸ in which changes in scientific paradigm are stimulated by anomalous test results only when a potentially more fruitful (if inarticulate and as of yet unconfirmed) paradigm has gained support from the majority of a scientific community.

¹⁸ Kuhn, The Structure of Scientific Revolutions.

Popper's criticism of verificationism did not extend to positivism's other defining postulates: unificationism and fact-value dualism. Along with Carl Hempel, he insisted that the historical and social sciences yield meaningful hypotheses only insofar as their explanation of events and actions are capable of being framed in terms of general (or statistical) laws of behavior. Such causal explanations could be useful to the formation of public policies aimed at piecemeal social reform. In contrast with these hypothetical technical predictions, the grandiose revolutionary experiments undertaken by such totalitarian movements as fascism and communism are not guided by scientific knowledge, despite contrary claims offered by their proponents.

Popper's two-volume magnum opus *The Open Society and Its Enemies* (1945), and his shorter treatise *The Poverty of Historicism* (1957), link this narrow scientific claim to a broader conception of morality, action, and politics in a manner that merits closer scrutiny. To begin with, Popper argues that the laws of historical development and social evolution that defenders of total revolution advocate – what he referred to as "historicism" – are ultimately meaningless, since they do not yield falsifiable hypotheses.¹⁹ Such laws as inform Marx's historical materialism, which ostensibly postulates an inevitable progression of social formations (modes of production) culminating in communism, Plato's views about the inevitable decline of well-ordered polities into tyranny, or fascist doctrines about the fateful struggle and victory of master

¹⁹ Popper's notion of historicism must not be confused with the concept of historicism that was used by Husserl, Dilthey, and other (mainly neo-Kantian) thinkers at the turn of the century, for whom the term referred to a kind of historical relativity in the understanding of distinctive historical epochs and cultural worldviews.

races are all examples of unscientific (and irrational) ideologies. The architects who use such ideologies to construct their revolutionary societies cannot allow any actions that deviate from the predicted outcome, so they insist on totalitarian controls that transform modern societies that are otherwise open, liberal, and democratic (or on the cusp of becoming so) into societies that are primitive, closed, and tribal.

According to Popper, the critical rationalism inherent within science demands an open society. Persons must be free to imagine new hypotheses; ultimately, the values (moral and non-moral) that guide the inventive formulation of hypotheses are themselves the outcome of existential decisions that are entirely unpredictable. The fact that the consequences and meanings of actions transcend the intentions of actors and that the latter are themselves critically generated and revised within the context of multi-vocal and open-ended conversations means that the predictions of predetermined outcomes made by revolutionary social engineers must come to naught. As another contemporary Kantian, Hannah Arendt, astutely noted in her criticism of totalitarianism, the revolutionary spirit underlying utopian moral idealism inevitably shatters against the hard fact of moral freedom.

The Contemporary Influence of American Pragmatism and Logical Positivism

As I noted earlier, once logical positivism became transplanted onto American soil by German and Austrian *émigrés* fleeing Nazi Germany it was vigorously promoted as a more analytically rigorous – and ostensibly superior – way of doing philosophy than its pragmatist counterpart. Hence the virtual disappearance of pragmatism in major PhD- granting philosophy departments during the fifties and sixties. There is also some anecdotal evidence, assembled by John McCumber, that political motivations may also have contributed to this change.²⁰ Although positivists like Carnap and Neurath had leftwing sympathies, their philosophy had the distinct merit of being untainted by the leftleaning, social progressivism that marked Mead's and Dewey's pragmatism. Limiting philosophy to the singular task of conceptual clarification and epistemological foundationalism, logical positivists eschewed normative ethics altogether in favor of meta-ethical ruminations on the meaning of "ought," "good," and the like. As a worldview that promoted skepticism of any holistic or global historical (or totalizing) understanding of social and economic structures, even Popper's critical rationalism could at best promote piecemeal reform of a system that was largely taken for granted.

During the McCarthy Era, Popper's relatively weak vision of an open society of free inquirers was not to be found among American philosophy departments. Yet despite the near total eclipse of pragmatism, post-positivist tendencies that drew from (or otherwise replicated) ideas developed by pragmatist philosophers gradually supplanted positivist shibboleths. The Anglo-American world was thus well-prepared for the renaissance of neo-pragmatist thought that was ushered in by Richard Rorty's *Philosophy and the Mirror of Nature* in 1979 and alternatively taken up by such notable philosophers as Hilary Putnam and (more recently), John McDowell and Robert Brandom.²¹

²⁰ McCumber, *Time in a Ditch*.

²¹ These developments are discussed in several essays in the following volumes; see David R. Hiley, "Rorty among the Continentals," in *History of Continental Philosophy. Volume 6: Poststructuralism and Critical*, ed. Alan D. Schrift; José

Oddly, despite the affinities between pragmatism and continental philosophy – notably Heideggerian phenomenology and Frankfurt-School neo-Marxism – there was virtually no productive interchange between these currents of thought until the seventies. I mentioned the utter failure of Max Horkheimer and other first-generation critical theorists to read the works of Dewey seriously.²² Therefore, in concluding this essay, I

Medina, "The Performative Turn and the Emergence of Post-Analytic Philosophy," in *History of Continental Philosophy. Volume 7: Post-Poststructuralism*, ed. Rosi Braidotti; and John Fennell, "Re-Thinking Anglo-American Philosophy: The Neo-Kantianism of Davidson, McDowell, and Brandom," in *History of Continental Philosophy. Volume 8: Emerging Trends in Continental Philosophy*, ed. Todd May.

²² Dewey is the philosopher most often mentioned by Horkheimer in *The Eclipse of Reason*. Yet James Schmidt points out that Horkheimer's discussion of Dewey and pragmatism in the second of the Columbia University Lectures he gave in 1944 that would later form the core of his book was an afterthought. Indeed, Horkheimer was only prompted to correct the interpretation of pragmatism contained in the lecture when he wrote his manuscript, which was critically reviewed by C. Wright Mills, who believed that Horkheimer had grasped pragmatism "in a rather vulgar form" and without apparent familiarity with the primary texts. Although Horkheimer told Leo Lőwenthal that he felt he had become "an expert" on American pragmatism and positivism were virtually indistinguishable, save for the latter's "phenomenalism" ("sensualistic idealism"), belies this judgment. In Horkheimer's opinion, pragmatism, no less than positivism, identifies philosophy with scientism, which by

would like to recall how the Frankfurt School's own struggle with positivism led it to eventually recover the legacy of American pragmatism well before it became fashionable in the English-speaking world.

The positivist postulates of scientific unificationism and fact-value dualism were strenuously resisted by philosophers influenced by the linguistic philosophy of the late Wittgenstein and, on the continent, by critical theorists. Critical theorists such as Theodor Adorno and Max Horkheimer saw positivism (including Popper's critical rationalism) as fundamentally uncritical and reactionary. The positivist dismissal of evaluative language, its insistence on defining truth and meaning in terms of correspondence with atomic facts or subjectively given sense experiences – in total abstraction from the broader historical, economic, political, and socio-cultural context conditioning perception, thought, and language – struck them as a false and ideological affirmation of the status quo. While they did not deny the epistemic value of predictive and technically useful knowledge within the behavioral sciences, critical theorists regarded such knowledge as but a subordinate aspect within social science taken as a whole, the proper aim of which, they maintained, was not instrumental prediction and control of human behavior but the critique of "naturalizing" ideologies that depict society as a realm of rigid, unchanging laws.

its very nature is subjectivistic in that "true judgments on objects, and therewith the concept of the object itself, rests solely on 'effects' upon the subject's action" (*Eclipse of Reason*, p. 45). See Schmidt, "The Eclipse of Reason and the End of the Frankfurt School in America."

The so-called "positivist dispute" of the early sixties that pitted Popper and his followers against Adorno and his former assistant, Jürgen Habermas, brought the issue of "critical social knowledge" into stark relief. Popperians defended a unified scientific method as the only empirically responsible approach to social critique and impugned the holistic hermeneutical methods of critical theorists as an uncritical recrudescence of Hegelian dialectical metaphysics. Critical theorists responded that social scientists could not causally explain human behavior without first interpreting it as meaningful and norm-governed in a way that referred to interests, ideas, and utopian ideals that simultaneously corresponded to and conflicted with the laws of capitalist accumulation. Furthermore, they bridled at the fact/value distinction upheld by the Popperians, which consigned critical evaluations to the irrational status of existential decisions. This was a "decisionism," they believed, that could all too easily degenerate into a resolute acquiescence to the powers that be, as exemplified by the illustrative fate of Carl Schmitt and Martin Heidegger.

Habermas enlisted none other than Wittgenstein himself in arguing against the unified science postulate maintained by the Popperians. Wittgenstein's late philosophy of language, the most mature of expression of which is expounded in his posthumous work, *Philosophical Investigations* (1953), develops a pragmatist account of meaning that is completely antithetical to the positivist view he had earlier developed in the *Tractatus*.²³ In the mature work, Wittgenstein argues that the meaning of language is

²³ For a discussion of Wittgenstein's turn against his own earlier views in the *Tractatus*, see the essay by Bob Plant and John Fennell in *History of Continental Philosophy*. *Volume 3*, ed. Ansell Pearson and Schrift.

holistic and contextual (syncategorematic) and linked to observable use rather than to ostensive reference. Language games comprise speech-acts that, in the parlance of Wittgenstein's follower John Austin, accomplish illocutionary (social action-oriented) aims and have perlocutionary (behavior-modifying) effects. Such games, in turn, circumscribe rule-governed "ways of life" that are inherently public and shared.

As developed by Peter Winch in his pioneering manifesto *The Idea of Social Science* (1958), the implication of this Wittgensteinian theory of meaning for explaining human action was nothing less than momentous, in that it reaffirmed the dualism between natural and human science that formerly had been defended by neo-Kantians. According to Winch, meaningful action is distinguished from brute behavior in being essentially structured and identified by the intentions of the actor. Such intentions are therefore not discrete psychic causes that precede physical action as Popper, Hempel, and other advocates of the so-called "covering law" model of social and historical explanation had maintained. On the contrary, intentional actions cannot be causally explained with reference to social laws but can only be understood and interpreted within the context of a rule-governed language game, or way of life. More precisely, the intentions of the actor – what it is he or she intends to do by his or her action – implicitly refers to norms of speaking and acting. To explain an action is therefore to understand it as a meaningful instance of a norm that could, in principle, be creatively applied or even violated.

The Wittgensteinian revolution in philosophy of language proved pivotal for the development of later critical theory. It enabled the most notable exponents of this theory, Karl-Otto Apel and Habermas, to recover the lost insights of the pragmatist tradition, above all Peirce's operationalist theory of meaning and Mead's social behaviorist account of mind, in the sixties and seventies – well in advance of the renaissance of Anglo-American neo-pragmatism.²⁴ This appropriation of classical pragmatism has continued apace under third-generation critical theorists, Axel Honneth and Hans Joas, whose use of Dewey and, above all, Mead, to develop new theories of recognition and democracy has taken critical theory more deeply into the heart of social progressivism.²⁵

In the hands of Habermas and Apel, pragmatism was used to construct a transcendental theory of knowledge-constitutive interests as an alternative to positivist "objectivism." Following Habermas's formulation of this new program of critical pragmatism, different interests that have emerged in the course of the natural history of the human species determine distinctive frameworks of action and knowledge. Corresponding to a technical interest in controlling nature-like processes is instrumental action – articulated in experimental methods – that serves to stabilize successful beliefs

- ²⁴ Apel's epochal introduction of American pragmatism (principally Peircian semiotics) to the German public appeared in his two volume study *The Transformation of Philosophy* (1973), which also displays a great debt to the neo-Kantian tradition of Dilthey and the post-positivist philosophy of the late Wittgenstein. Habermas's indebtedness to Peirce is evident in his earlier work, *Knowledge and Human Interests* (1968), while his use of Mead later appears in the second volume of his *Theory of Communicative Action* (1981).
- ²⁵ For discussions of these developments in the second and third generations of critical theorists, see respectively the essays by James Swindal in *History of Continental Philosophy. Volume 6*, ed. Schrift, and Amy Allen in *History of Continental Philosophy. Volume 7*, ed. Braidotti.

about cause and effect. Corresponding to a practical interest in understanding ourselves and (reaching) understanding (with) others is communicative action – articulated in historical interpretative methods – that serves to stabilize right beliefs about identities, norms, values, and ends. Corresponding to an emancipatory interest is critical reflection – articulated in psychotherapeutic methods combining causal explanation and holistic understanding – that serves to expose distortions in self-understanding caused by the effects of domination.

Since the late seventies, Habermas's critical theory has evolved into a full-blown theory of communicative action whose debt to pragmatism – especially to Mead and Wittgenstein – is evident in the name he gives his philosophy of language: universal pragmatics. If anything, the newer generation of critical theorists has sought to wrest the materialist spirit of pragmatism even further from the Kantian dualisms that still define Habermas's theory. Needless to say, all of this testifies to the continuing impact of pragmatism on the future of German critical philosophy.