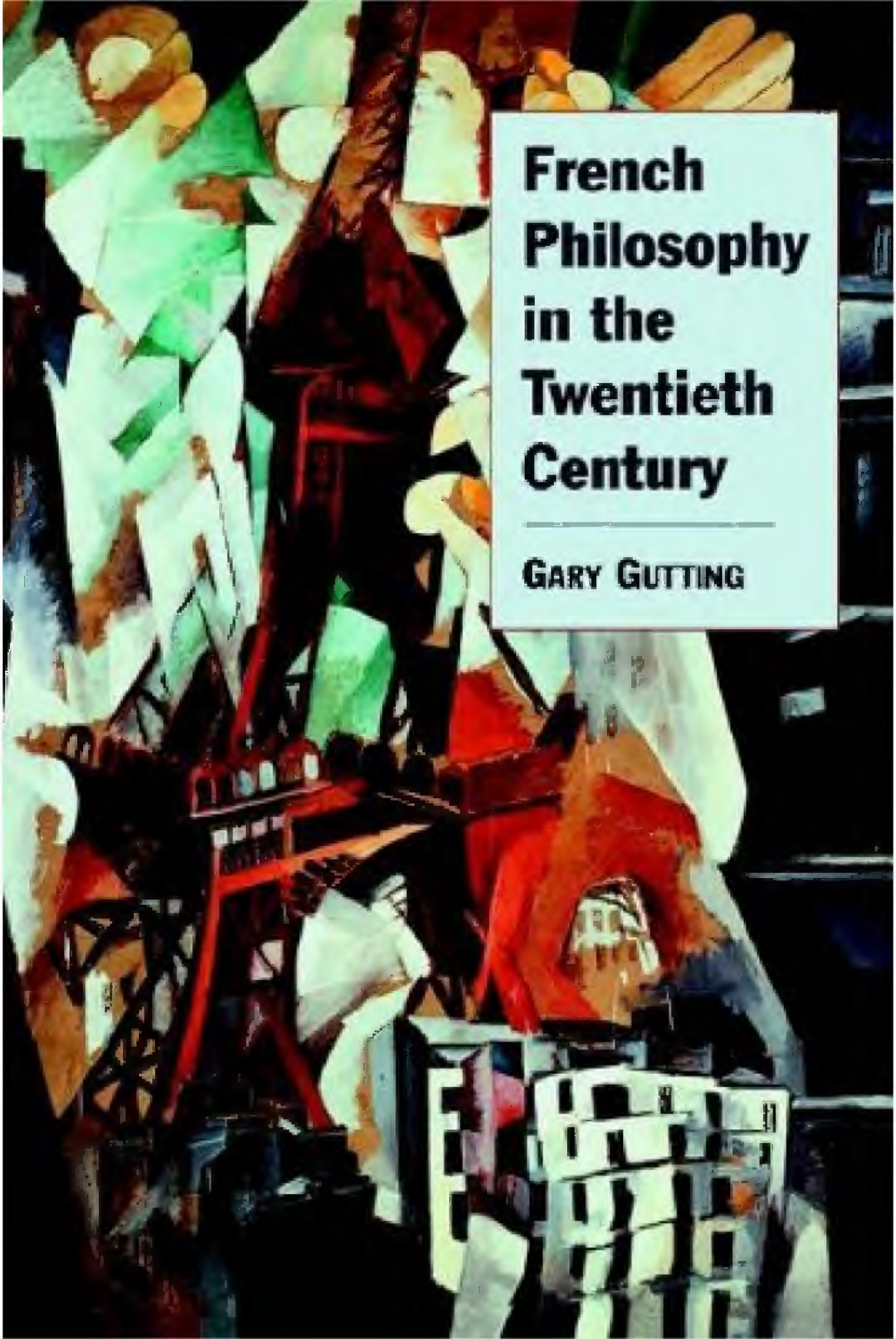

French Philosophy in the Twentieth Century

GARY GUTTING

FRENCH PHILOSOPHY IN THE TWENTIETH CENTURY

In this book Gary Gutting tells, clearly and comprehensively, the story of French philosophy from 1890 to 1990. He examines the often neglected background of spiritualism, university idealism, and early philosophy of science, and also discusses the privileged role of philosophy in the French education system. Taking account of this background, together with the influences of avant-garde literature and German philosophy, he develops a rich account of existential phenomenology, which he argues is the central achievement of French thought during the century, and of subsequent structuralist and poststructuralist developments. His discussion includes chapters on Bergson, Sartre, Beauvoir, Merleau-Ponty, Foucault, and Derrida, with sections on other major thinkers including Lyotard, Deleuze, Irigaray, Levinas, and Ricoeur. He offers challenging analyses of the often misunderstood relationship between existential phenomenology and structuralism and of the emergence of poststructuralism. Finally, he sketches the major current trends of French philosophy, including liberal political philosophy, the return to phenomenology, and French analytic philosophy.

GARY GUTTING is Professor of Philosophy at the University of Notre Dame, and a leading authority on twentieth-century French philosophy. He is the author of *Michel Foucault's Archaeology of Scientific Knowledge* (Cambridge University Press, 1989) and the editor of *The Cambridge Companion to Foucault* (1994). His many publications also include *Pragmatic Liberalism and the Critique of Modernity* (Cambridge University Press, 1999).

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To Anastasia
with love
remembering our first day in Paris, June 20, 1968

Contents

Preface

There is nothing sacred about the century as a unit of time, but there is a relatively self-contained and coherent story to be told about French philosophy from about 1890 to about 1990. In telling it, I have tried to be comprehensive although by no means exhaustive. There are full chapters on the half-dozen figures I regard as of the highest importance and substantial sections on about a dozen other major thinkers. Beyond that, I have let the logic of my narrative, more than any desire for encyclopedic completeness, determine whom I discuss and how. Given the constraints of length, it has been impossible to avoid arbitrary exclusions. Thoughtful readers will regret no more than I that there is little or nothing on André Lalande, Alain, Simone Weil, Pierre Bourdieu, Alain Badiou . . .

My approach has been that of a historically minded philosopher rather than a historian per se. I have, accordingly, paid more attention to the internal logic of ideas than to, for example, social-political contexts, economic determinants, or the psychology of influence. I have, however, tried to give a sense of the flow and interaction of ideas from one thinker to another and to explain, at least in intellectual terms, major changes in views (from, for example, idealism to existentialism and existentialism to poststructuralism). My main goal has been to provide the reader with lucid and fair analyses of what philosophers have thought and of how the thoughts of different philosophers are related. I have also paid some, necessarily limited, attention to the broader intellectual context of French philosophical thought (for example, German philosophy, avant-garde literature, and structuralist social science) and to its dependence on the distinctive French system of education. (The appendix provides a summary of basic facts and terminology that may be useful for understanding references to this system.)

My first four chapters, on the years before World War II, cover much material seldom discussed in English. I hope that readers will see the importance of spiritualism, university idealism, Bergson, and French philosophy of science for understanding the developments of the latter half of the century. I also hope they will come to share my appreciation of the intrinsic philosophical value of what thinkers such as Lachelier, Poincaré, Brunschvicg, and Blondel achieved. My later chapters, covering better-known but often quite difficult philosophers, put a particularly strong emphasis on clarity of analysis. They also defend some controversial judgments about, for example, the centrality of Sartre's *L'être et le néant*, the philosophical importance of Beauvoir's *Le deuxième sexe*, the relatively marginal role of structuralism, and the significance of poststructuralism. The Conclusion presents my view that twentieth-century French philosophy is best read as a sustained reflection on the problem of individual freedom.

I am especially grateful to those who read and so perceptively commented on drafts of this book: Karl Ameriks, Philip Bartok, Frederick Crosson, Thomas Flynn, Anastasia Friel Gutting, and Stephen Watson. Warm thanks also to those who offered their expert assessment of particular chapters or sections: Alissa Branham, David Carr, Jean Gayon, Eric Matthews, Todd May, William McBride, and Ernan McMullin. Philip Bartok deserves special mention both for his acute close reading and his invaluable bibliographical assistance.

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Special thanks are due to Hilary Gaskin, the philosophy editor at Cambridge University Press, who suggested that I write this book and encouraged me throughout its writing, and to Jocelyn Pye for excellent copy-editing.

Finally, as always, by far my greatest debt is to my family: to my children, Tom, Edward, and Tasha, for all the pride and joy they bring; and to my wife Anastasia for the perfect gift of loving and being loved by her.

A note on references

Books and articles are cited simply by title, with full details given in the References. All citations are in English and are from a published translation when one is listed in the References. Otherwise, the English translations are my own. When a text is cited repeatedly, the title is abbreviated (e.g., *EN* for *L'être et le néant*) and page references are given in the main text, the first number referring to the French original and the second to the English translation.

Abbreviations

A	Maurice Blondel, *L'action*
CRD	Jean-Paul Sartre, *Critique de la raison dialectique*
CS	Luce Irigaray, *Ce sexe qui n'en est pas un*
D	Jean-François Lyotard, *Le différend*
DS	Simone de Beauvoir, *Le deuxième sexe*
DSM	Henri Bergson, *Les deux sources de la morale et de la religion*
EC	Henri Bergson, *L'évolution créatrice*
EDI	Henri Bergson, *Essai sur les données immédiates de la conscience*
EDS	Luce Irigaray, *Éthique de la différence sexuelle*
EH	Léon Brunschvicg, *L'expérience humaine et la causalité physique*
EN	Jean-Paul Sartre, *L'être et le néant*
FI	Jules Lachelier, *Du fondement de l'induction*
LI	Jacques Derrida, *Limited Inc.*
MC	Michel Foucault, *Les mots et les choses*
MJ	Léon Brunschvicg, *La modalité du jugement*
MM	Henri Bergson, *Matière et mémoire*
MP	Jacques Derrida, *Marges de la philosophie*
PK	Michel Foucault, *Power/Knowledge*
PP	Maurice Merleau-Ponty, *Phénoménologie de la perception*
PS	Claude Lévi-Strauss, *La pensée sauvage*
QM	Jean-Paul Sartre, "Question de méthode"
S	Maurice Merleau-Ponty, *Signes*
SH	Henri Poincaré, *La science et l'hypothèse*
SR	Jean-Paul Sartre, "Jean-Paul Sartre répond"
TI	Emmanuel Levinas, *Totalité et infini*
VS	Henri Poincaré, *La valeur de la science*

PART I

The Philosophers of the Third Republic (1890–1940)

CHAPTER I

Fin-de-siècle: the professors of the Republic

> Abandoning the study of John Stuart Mill only for that of Lachelier, the less she believed in the reality of the external world, the more desperately she sought to establish herself in a good position in it before she died.
>
> (Marcel Proust, *In Search of Lost Time*, IV, 438)

PHILOSOPHY AND THE NEW UNIVERSITY

Writing just after the end of World War I, an acute observer of the French philosophical scene judged that "philosophical research had never been more abundant, more serious, and more intense among us than in the last thirty years".[1] This flowering was due to the place of philosophy in the new educational system set up by the Third Republic in the wake of the demoralizing defeat in the Franco-Prussian War. The French had been humiliated by the capture of Napoleon III at Sedan, devastated by the long siege of Paris, and terrified by what most of the bourgeoisie saw as seventy-three days of anarchy under the radical socialism of the Commune. Much of the new Republic's effort at spiritual restoration was driven by a rejection of the traditional values of institutional religion, which it aimed to replace with an enlightened secular worldview. A principal vehicle of this enterprise was educational reform and specifically the building of a university system dedicated to the ideals of science, reason, and humanism. Albert Thibaudet highlighted the importance of this reform when he labeled the Third Republic "the republic of professors".[2]

Philosophy was at the center of the new educational regime, exerting its influence through the famous "classe de philosophie"

[1] Dominique Parodi, *La philosophie contemporaine en France*, 9–10.

[2] In his *La république des professeurs*.

that was the main requirement for students in French public high schools (lycées) during their last year (when they were seventeen to eighteen years old).[3] The class's modern history went back to regulations of 1809 that reestablished the medieval divisions of philosophy into logic, metaphysics, and morality and stipulated that it be studied for eight hours a week. There was also introduced a division treating the history of philosophy. Around 1830, Victor Cousin[4] added psychology, which soon became the most important element of the curriculum. Also, where the rules of 1809 had given merely a set of recommendations for teaching and a list of authors, Cousin worked out a detailed required structure. The idea was to cover the whole of philosophy, both its problems and its history, in a year-long grand synthesis. Cousin also began the process of laicizing philosophy, by reducing the role of religious questions. His structure stayed in place until philosophy was eliminated from the curriculum of the lycées in 1853 under the Second Empire.

In 1863 philosophy was restored to the lycées and became a required subject for all students in the last year of secondary education.[5] During the First Empire, a lycée education became required for many civil service positions. This meant that, after 1863, the "classe de philosophie" was extremely important for French secondary students, since it was now a key topic on the exam they had to pass to receive their degree (the *baccalauréat*) and be eligible for state employment. Its importance was further emphasized by the reform of 1874, which made philosophy and rhetoric separate divisions, emphasizing philosophy's autonomy and distinctiveness. Moreover, since philosophy was taught only in a single year – the final one – it was presented as the culmination and synthesis of all that had gone before, the "crown", as it was inevitably put, of secondary education. It was not surprising that philosophy soon replaced rhetoric as the course with the highest intellectual status

[3] For an overview of the structure of the French educational system, see the Appendix.

[4] Victor Cousin (1792–1867) was minister of education in the 1830s and 1840s under the bourgeois monarchy of Louis-Philippe. His own philosophical position, which he called eclecticism, tried to synthesize French philosophical psychology (deriving from Maine de Biran) with empiricism, Scottish realism, and German idealism. During the mid-nineteenth century, eclecticism had the status of an "official" philosophy in the French university. Cousin was also important as an editor, translator, and historian of philosophy.

[5] For a general discussion of French education in the later nineteenth and early twentieth centuries, see Fritz Ringer, *Fields of Knowledge: French Academic Culture in Comparative Perspective, 1890–1920*. On the role of philosophy in France during this period, see Jean-Louis Fabiani, *Les philosophes de la république*.

and, accordingly, attracted a large number of the brightest students interested in secondary teaching.

Since the main goal of the university teaching of philosophy was to produce teachers for the lycée philosophy class, there was considerable continuity between the content of the two programs. At the same time, the qualifying examination (the *agrégation*) for those who wanted to teach philosophy in the lycées was geared to university-level research rather than merely what we would think of as high-school teaching. The result was a large number of talented lycée teachers with a high level of specialist knowledge in philosophy; and, of course, the best of these went on to take doctorates in philosophy and become university professors.

The French educational system thus gave philosophy a highly privileged place in the Third Republic. There was an audience composed of a general public educated in the rudiments of philosophy, as well as a substantial number of secondary school teachers with specialist knowledge of the subject; and there was a highly elite group of university professors engaged in philosophical research. Accordingly, a faculty of philosophy presided over the "republic of professors". Thibaudet falls into religious language in trying to express the sublimity of the philosopher's role: "The philosophical vocation embodies a principle analogous to a priestly vocation. Anyone who has prepared for the *agrégation* in philosophy . . . has been touched, at some point, like a seminarian, by the idea that the highest degree of human grandeur is a life consecrated to the service of the mind and that the University lets one compete for positions that make it possible to render this service."[6]

Nevertheless, as Ernst Curtius (writing in 1930) emphasized, French culture remained essentially literary. The dominant figures were writers such as Zola and Anatole France, who were outside the university system; and philosophical writing itself was literary in the sense that, as Bergson said, there was "no philosophical idea, no matter how profound or subtle, that could not be expressed in the language of everyday life [*la langue de tout le monde*]".[7] Curtius, imbued with German idealism's conception of philosophy, saw the

[6] *La république des professeurs*, 139.

[7] Cited by Ernst Curtius, *The Civilization of France: An Introduction*, 100. Fabiani notes, however, that "during the period 1880–1914 there were no close connections between professors of philosophy and avant-garde writers" (*Les philosophes de la république*, 115). As we shall see, that changes with the generation of the 1930s.

French as surrendering the philosophical enterprise "to literary form and average intelligence" and thought this was why, although "in Germany intellectual culture may be philosophical, in France it can be literary only".[8]

The university philosophy of the early Third Republic (before World War I) had both the strengths and the weaknesses of its privileged status. The high level of talent and the informed critical audience sustained a professional solidity that contemporaries favorably (and rightly) contrasted to the eloquent vagaries of Victor Cousin's eclecticism and Hyppolite Taine's positivism, which had dominated the Second Empire. Also, universal philosophical education and the high social position and connections of professors gave philosophy a strong influence on the general French culture. Scientists such as Henri Poincaré (brother-in-law of the philosopher Émile Boutroux) showed a particular interest in philosophical issues. Marcel Proust (a groomsman at Bergson's wedding), was a friend of Léon Brunschvicg, his fellow lycée-student in the philosophy course of Alphonse Darlu. The strong philosophical content of the writings of André Gide and Paul Valéry is often remarked; and the work of André Malraux, who studied philosophy with Alain (the pseudonym of Émile Chartier), the most famous of all lycée teachers, has been characterized as "the thought of Alain transposed into the novel".[9]

But privilege also encouraged intellectual complacency and damped the creativity that can rise from radical questioning by less socially secure thinkers. With the arguable exception of Bergson, the philosophers of the early Third Republic worked within a relatively narrow band defined by their training in the history of thought, their bourgeois moral ideals, and the political realities of their time. Curtius stretches the point to the maximum:

> [French philosophy's] conservative Humanism could not endure either the Pantheism of a world-intoxicated ecstasy, nor the transcendental idealism of the creative spirit, nor the knowledge of salvation which desires redemption and depreciates the value of the world, nor the moral criticism of an heroic will to power. A Hegel, a Schopenhauer, a Nietzsche are unthinkable in France.[10]

On the other hand, eschewing the ecstasies of Germanic metaphysics – and the attendant drive for strong originality – allowed the

[8] *The Civilization of France: An Introduction*, 99–100.
[9] Jean Guitton, *Regards sur la pensée française, 1870–1940*, 59.
[10] *The Civilization of France: An Introduction*, 104.

French professors to create a fruitful circle of sensible conversation, focusing on a small set of key topics and grounded in a common formation and strong mutual respect. Such conversation was carried out in the *Revue de métaphysique et de morale* (founded by Xavier Léon and Léon Brunschvicg in 1893) and in meetings of the closely related Société Française de Philosophie (founded in 1901). The degree of shared understanding that could be assumed is most striking in André Lalande's project of a *Vocabulaire technique et critique de la philosophie*. This volume, which went through eleven editions between 1900 and 1926, offered detailed definitions of the full range of philosophical terms, finally formulated by Lalande but informed by commentary from most of the leading philosophers of the period. (Lalande's proposed definitions were discussed regularly at sessions of the Société, and the comments of members are printed beneath the *Vocabulaire*'s entries.) The work came remarkably close to its goal of "achieving accord among philosophers – as much as possible – on what they understand by . . . philosophical terms".[11]

Focused and fruitful, if not drastically creative, early Third Republic philosophy was rather like much contemporary analytic philosophy (or medieval scholasticism), though far less technical and rigorous and far more accessible to the general culture. Such thought is not likely to make new epochs, but it is an effective contribution to the civility and rationality of the age in which it finds itself.

Politically, the philosophers of the Third Republic, like other members of the new university, occupied an interesting and important position.[12] Their social status and position as government employees obviously made them part of the establishment, but since they had typically been born into intellectual families (with parents who were teachers, writers, physicians, etc.) they were less inclined to identify with the conservative values of the wealthy bourgeois class. (They had, in Pierre Bourdieu's terms, much more cultural capital than economic capital.) Accordingly, professors as a whole formed an influential class of liberal supporters of the Third Republic's ideals, with those with the highest level of intellectual status generally the most liberal. So, for example, in the Dreyfus affair, which split France

[11] *Vocabulaire technique et critique de la philosophie*, ix.

[12] See Fritz Ringer, *Fields of Knowledge: French Academic Culture in Comparative Perspective, 1890–1920*, 219–25.

at the turn of the century, the majority of professors at the Sorbonne and the École Normale Supérieure supported Dreyfus, and this support was particularly strong among philosophers.

Reflecting the Third Republic's secular liberalism, the central concerns of its philosophers were science, human freedom, and the relation between the two. Unlike the German idealists, who felt themselves possessed of intuitive or dialectical modes of knowing that far outstripped the plodding efforts of empirical science, these philosophers saw their reflections as grounded in an accurate understanding and appreciation of scientific results. On the other hand, even those closest to a positivist acceptance of the ultimate cognitive authority of science rejected empiricist epistemologies of scientific experience in favor of a rationalist active role for the mind. In a parallel way, construals of freedom typically avoided the determinism or compatibilism favored by empiricism and the subordination of the individual human will to an idealist absolute spirit. Because of this lack of sympathy with the dominant traditions of both Germany and Britain, French thought was very nearly autonomous during this period.[13]

POSITIVISM

Surveys of philosophy in France from 1870 to 1920 almost always employ a standard division of their subject into three schools: positivism, spiritualism, and idealism. These are useful categories for understanding the problems and approaches of the period, but they are much less helpful as classifications of individual thinkers. This is particularly so for positivism. The term was first used by Auguste Comte (1798–1857) to characterize his effort to develop a philosophy based on only the plain (positive) facts of experience – of which science provides paradigm examples – and to avoid metaphysical hypotheses. It came to be applied to any view that privileged empirical science over metaphysical thought. A "positivist" might well hold strongly scientistic views such as Humean empiricism or materialistic reductionism, but not necessarily. Many positivists

[13] Similarly, there was little foreign interest in French philosophy. Harald Höffding, for example, in his comprehensive history of modern philosophy, omits any treatment of French philosophers of the latter half of the nineteenth century, noting that, although they are important in the thought of their own country, "they have brought no new principles to bear on the discussion of problems" (*A History of Modern Philosophy*, 486).

rejected Comte's exclusion of theoretical entities, such as atoms, from science, and Comte himself maintained the irreducibility of biology and sociology to physics and chemistry. Later, leading positivists such as Ernest Renan and Hyppolite Taine painted grand visions of historical progress that were with some plausibility labeled Hegelian. This represented a broadening and dilution of positivism as it became more a general intellectual orientation than a well-defined philosophical position. In the mid-nineteenth century, positivism was still a major force, but its main proponents were literary figures such as Renan and Taine rather than academic philosophers. From 1870 on it was rejected by every major philosopher.[14]

Nonetheless, the positivist spirit survived. It was a major motivation for extending the methods of the natural sciences to the human domain, leading to the seminal work of Durkheim in sociology and of Pierre Janet in empirical psychology.[15] Such work did not assume or imply that all knowledge was scientific, but it did constitute a challenge to anti-positivist arguments that the specifically human domain was not open to empirical understanding. Other vital legacies of positivism were the development, by Poincaré and Duhem, of philosophy of science as a separate subdiscipline and the central role accorded detailed discussions of the history and results of science by virtually every major figure from Boutroux to Brunschvicg and Bergson. Indeed, by the 1930s Bachelard could respectably maintain that philosophy, while not reducible to science, should be identified with the philosophy of science.

SPIRITUALISM: RAVAISSON AND RENOUVIER

Spiritualism has a good claim to be the national philosophy of France. It is rooted in Descartes' assertion of the epistemic and

[14] One thinker who did defend a strong positivist position in the early 1900s was Félix Le Dantec (1869–1917). Parodi briefly summarizes his views in his survey of the contemporary scene; but then, in place of his usual critical assessment, he merely remarks, "it would be pointless to criticize such work" (*La philosophie contemporaine en France*, 57). The marginal place of positivism is also suggested by the two pages devoted to it in Lalande's *Vocabulaire*, in contrast to the four pages on spiritualism and the nine on idealism.

[15] For a long time, there was no sharp distinction drawn between psychology/sociology and philosophy. Even well into the twentieth century, Durkheim, Janet, and similar thinkers were routinely regarded as philosophers and included in standard surveys such as Parodi's *La philosophie contemporaine en France* and Isaac Benrubi's *Les Sources et les courants de la philosophie contemporaine en France*. Even today, the work of sociologists such as Pierre Bourdieu and Bruno Latour has a strong philosophical component.

metaphysical primacy of thought but does not require his mind–body dualism. The view is, in fact, consistent with any ontology that allows for these two central assertions: that the value of human existence derives from the higher mental faculties (both intellectual and affective) of individuals; and that these faculties are neither reducible to material processes (including sense experience) nor assimilable to a higher level of reality (the absolute). Spiritualism is thus an assertion of the metaphysical and ethical primacy of the individual mind (*l'esprit*), against the claims of materialism, empiricism, and certain sorts of idealism.

One of the earliest and most influential spiritualists was François Maine de Biran (1766–1824). Arguing against Locke, Hume, and, especially, Condillac and the *Idéologues*, he maintained that empiricist reductions of mental life to the flow of passing sense impressions were refuted by our experiences of willing (*effort voulu*), which reveal a persisting self continually straining against bodily resistance. In these experiences, a unified self or mind is revealed through what Maine de Biran calls our *sens intime* (inner awareness). Such inner experiences of human freedom remained the foundation of later spiritualist cases for the ultimate autonomy and value of the individual.

The spiritualist legacy reached early twentieth-century French philosophy primarily through Félix Ravaisson (1813–1900). Ravaisson never held a university chair (Cousin, who had initially helped advance his career, blocked the appointment). But he exercised major influence through a series of administrative positions: inspector of libraries, general inspector of higher education, and, most important, chair of the committee that set and graded the *agrégation* examination in philosophy. His interest in art led to scholarly work on Da Vinci and on ancient Greek sculpture and an appointment as curator at the Louvre, where he carried out a major restoration of the Venus de Milo.

In 1867, Ravaisson published his *La philosophie en France au XIXe siècle*, a report commissioned by the French government on the occasion of the Exposition of 1867. Surveying the history of French philosophy after 1800, he noted the dominant place of Comte's positivism and of its main rival, the eclecticism of Victor Cousin. Ravaisson argued that both these positions had failed and that exigencies of fact and argument were driving French philosophy toward the spiritualism that Maine de Biran had developed but his contemporaries ignored. Ravaisson predicted a new philosophical

epoch dominated by what he called "spiritualistic realism or positivism"; that is, a philosophy that gives priority to spiritual "facts" in the same way that ordinary realism and positivism do to perceptual and scientific facts. Such an epoch would, he said, have as its "generating principle the consciousness that mind [*l'esprit*] has of itself, a self recognized as an existence from which all other existences derive and on which they depend, and which is nothing other than its own activity".[16]

His prediction was entirely correct. By 1890 Ravaisson's books were, in Parodi's words, "the breviaries of all the young philosophers"[17] and the philosophical agenda was being set by thinkers such as Lachelier, Boutroux, and Bergson (all students of Ravaisson at the École Normale), who were strongly sympathetic to the spiritualist view.

If, as Comte had famously said, materialism is the claim that the higher can be explained by the lower, spiritualism claims to explain the lower by the higher. Here, of course, the higher is the mind, but not the Cartesian mind that includes any experience whatsoever. The spiritualist mind is the locus of only the higher mental functions such as intelligence, will, and aesthetic appreciation. It does not include lower forms of mentality (e.g., sense perception and emotions), associated with our "animal" nature. The mind or spirit is, then, the locus of the "properly human" dimension of our experience. The project of spiritualism is, first, to describe, accurately and in detail, our experience of ourselves as spiritual beings; and second, to show that everything else (the realm of nature) is subordinated to and dependent on spirit. True to Maine de Biran's seminal descriptions, Ravaisson and his followers made freedom the fundamental feature of the mind, thereby placing creative action at the root of all reality. Whereas Maine de Biran understood freedom primarily in terms of the effort exerted by the will, Ravaisson emphasized the desire (and therefore the love of the good) behind this effort, a desire he saw as ultimately directed toward the perfect goodness of the Christian God.

Although Descartes can be readily regarded as the first French spiritualist, since he gave clear epistemic and metaphysical priority to intelligence and volition, Ravaisson replaced the Cartesian

[16] *La philosophie en France au XIXe siècle*, 275.
[17] *La philosophie contemporaine en France*, 29.

dualism of mind and matter as separable substances with a distinction between mental life and nature as two interdependent poles of activity. (Here he was influenced by the later philosophy of Schelling, with whom he had studied in Munich,[18] and by Aristotle's doctrine of form.[19]) This was the basis for his own introspective study of our experience of habit, a topic suggested by both Maine de Biran and Aristotle. Following Maine de Biran, he saw habit as a paradigm example of the union of the creative free agency of mind with the repetitive stability of the material world. In moving from knowledge based on explicit reflection to a habit of implicit understanding (as a cook might at first make crepes by meticulously following a recipe but later come to toss them off "by second nature"), we go from an external relation to the objects of our knowledge to "an immediate understanding in which object and subject are fused".[20] Here we are not far from the intuition of Bergson, who wrote an elegant and perceptive appreciation of Ravaisson when he succeeded him in the Académie des Sciences Morales et Politiques.[21]

Spiritualism was typically a conservative position, a comfortable intellectual niche for supporters of an elitist bourgeois politics and Catholic Christianity. But there was a more radical variant, that of Charles Renouvier (1815–1903), which, though always relatively marginal, eventually exerted significant influence. Renouvier was a student at the same time as Ravaisson at the École Normale. He was very active in politics at the time of the 1848 revolution but became disillusioned after Louis Napoléon's coup in 1851 destroyed hopes for a socialist democracy. He abandoned politics for philosophy, although he did later edit and publish a journal, *La critique philosophique*, aimed at a general intellectual audience. Renouvier never held an academic position (he had sufficient inherited wealth to

[18] We should not make too much of the personal contact with Schelling. As Bergson tells us, Ravaisson spent only a few weeks in Munich. Also, Schelling spoke French badly and Ravaisson was not much better at German. See Henri Bergson, "Notice sur la vie et les oeuvres de M. Félix Ravaisson-Mollien", in *La pensée et le mouvant*, reprinted in *Oeuvres*, 1458.

[19] Ravaisson first made his name with a two-volume commentary on Aristotle's *Metaphysics* (1837). He viewed Aristotle as the true founder of spiritualist philosophy because, even more than Plato, he overcame empiricism and materialism, by making forms the causes of the movements of real existents and locating formal perfection in the mental lives of individual intelligences. On this and other aspects of Ravaisson's thought, see Émile Boutroux's very helpful "La philosophie de Félix Ravaisson", in his *Nouvelles études d'histoire de la philosophie*, 194–220.

[20] Félix Ravaisson, *De l'habitude*, 37.

[21] Henri Bergson, "Notice sur la vie et les oeuvres de M. Félix Ravaisson-Mollien", in *La pensée et le mouvant*, reprinted in *Oeuvres*.

make a profession unnecessary). After the coup, he left Paris for the south of France, where he had been born, and, working there in relative isolation, wrote continuously until his death in 1903, producing one of the largest oeuvres in the history of French philosophy.[22]

Renouvier tied his philosophy, which he characterized as "neo-criticism" (or, sometimes, "French criticism"), to that of Kant, although he does not seem to have penetrated very deeply into Kant's thought, which was more a starting-point than a continuing inspiration. What he took from Kant was mainly the idea of our phenomenal experience as structured by intellectual categories that are conditions of the possibility of this experience. He rejected Kant's noumenal world, maintaining that the phenomenal realm is the sole reality. He also saw phenomenal reality as fundamentally relational, excluding substance from the list of categories (and including becoming) and making relation the basic category of which all others are forms. These empiricist tendencies were, however, balanced by the addition of categories with a stronger metaphysical content than Kant's. Specifically, Renouvier introduced finality (purpose) and personality as essential structures of the phenomenal world. This led him to the characteristic spiritualist emphasis on the creative choices of individual minds as the driving force of reality.

Renouvier's ethical and political thought reflects the centrality of individual freedom.[23] But freedom is also a crucial epistemological category for him, since he holds that experience, even as informed by the system of categories, does not entirely determine what we must accept as the truth. Our judgments, from the lowest perceptions to the highest metaphysical speculations, always involve an irreducible element of free choice. Spiritualists such as Ravaisson were uneasy with this epistemological indeterminism and even more so with Renouvier's religious views.[24] His relativism left no place for a being of absolute perfection, such as the Christian God, and he also rejected the idea of an actual infinity – quantitative or qualitative – as incoherent. On the other hand, Renouvier thought that the

[22] Renouvier's most important work is his four-volume *Essais de critique générale*, Paris: 1854–64.

[23] William Logue, *Charles Renouvier: Philosopher of Liberty*, emphasizes Renouvier's ethics and politics and provides some useful historical background.

[24] Ravaisson offers a guardedly sympathetic treatment of Renouvier in his *La philosophie en France au XIXe siècle*, 110–18. This was probably the beginning of an awareness of Renouvier's work in the wider intellectual community.

impossibility of an actual infinity required a beginning of the universe in time and accepted personal immortality as necessary to make sense of moral obligations. This led him to assert the existence of God as creator and moral ideal, but he insisted that this being was finite in both knowledge and power (which finitude, he thought, provides the only plausible solution to the problem of evil). Moreover, God's creative role is consistent with human freedom since he is, as Renouvier put it, a "creator of creators".[25] Renouvier's heterodox theological views underlay his vigorous practical opposition to the power of the French Catholic Church, an opposition focused during the 1870s and 1880s in his journal, *La critique philosophique* (and its supplement, *La critique religieuse*), which followed a strongly anti-Catholic editorial policy.

Renouvier's lack of a position in the educational establishment, along with the unorthodoxy of his views, limited his influence on French philosophy. But the vigor of his thought – not to mention the huge amount he published over a period of sixty-one years – had an undeniable impact. He attracted a small group of disciples (and the strong admiration of William James) and eventually received some very belated official recognition, including election to the Académie des Sciences Morales et Politiques in 1900, at the age of eighty-five. His most important direct influence was on the work of Octave Hamelin, who offered a detailed analysis of Renouvier's work in his Sorbonne course of 1906–7 and whose own powerful philosophical system was strongly informed by Renouvier's work.[26]

IDEALISM: LACHELIER AND BOUTROUX

Mainline spiritualist thought had a natural tendency to idealism (and, indeed, Ravaisson sometimes called the view he championed idealism). But spiritualism allows the denial of the key idealist claim that ultimately only minds exist and is committed to a genuine plurality of individual persons and, especially, to a distinction between finite human minds and the infinite God that created them. (Hence the attraction of spiritualism for Catholic thinkers, including Ravaisson, Lachelier, and Blondel.) We need, therefore, to distin-

[25] Address to the Edinburgh Philosophical Society (1914), cited by J. Alexander Gunn, *Modern French Philosophy*, 294.

[26] Octave Hamelin, *Le système de Renouvier*. Hamelin also wrote important studies of the "systems" of Aristotle and Descartes.

guish at least between spiritualism and the absolute idealism of a Fichte or a Hegel.

In any case, idealism in France derived from appropriations of Kant, not Hegel, who had little influence there before the 1920s.[27] There were no translations of Hegel until 1859 (twenty-eight years after his death), and it was not until well into the twentieth century that full French versions of major books such as *The Phenomenology of Spirit*, *The Science of Logic*, and *The Philosophy of Right* were available. Even Kant's influence was slow in developing and became important only with Jules Lachelier (1832–1918), who presented a Kantian account of scientific reasoning in his thesis, *Du fondement de l'induction*, defended in 1871 and published the next year.[28]

Lachelier's thesis is an elegantly written *tour de force*, which, in the space of about 100 pages, expands an analysis of the problem of induction into a comprehensive idealist view of reality. The problem of induction is that of finding and justifying principles that warrant the move "from knowledge of facts to knowledge of the laws which order them" (*Du fondement de l'induction* [*FI*], 3/1). He endorses the common views that the conclusions of an inductive inference assert more than its premises and so cannot be grounded in the principles of deductive logic, and that inductive inferences require a principle of efficient causality, guaranteeing that the same phenomena will follow whenever the same antecedent conditions occur. But he argues that induction also requires a principle of final causality.

Efficient causality tells us only that *if* conditions are the same, the same results will follow. Successful induction also requires that we know that the conditions are the same. We can, of course, know from observation that conditions now *seem* to be the same as they were previously. But this gives no assurance that there are not *unobserved* conditions that make the situation different than it was previously. Lachelier gives the example of the biological law that members of a given species generally produce members of that same species. If all we knew was that the same phenomena follow if the

[27] Octave Hamelin (1856–1907), mentioned above, combined the spiritualism of Renouvier with something like Hegelian dialectic in his well-regarded *Essai sur les eléments principaux de la représentation* (1907). But Hamelin died early and his Hegelian tendencies had no extended influence.

[28] The index to Ravaisson's *La philosophie en France au XIXe siècle* shows the continuing dominance of pre-Kantian influences. It lists 6 references to Hegel, 7 to Kant, but 43 to Leibniz.

same conditions occur, "we would have to limit ourselves to asserting that the product of each generation would resemble its progenitors *if* all the required conditions come together". To go further and maintain that the new generation will actually be of the same species as the previous, we must also know that "all these conditions do in fact come together" (*FI*, 11/5). Since we cannot generally know this by direct observation, we must assume that there is a principle of order at work that guarantees the stability of species by maintaining the same conditions of generation. By such a principle, a feature of a whole (the stability of a species) determines the developments of its parts (the generation of individual organisms). Such determination is, according to Kant's definition, an instance of final causality. Although this example is biological, the point also holds for chemical and physical systems. Without a principle of final causality, we would know only a world of (efficient) causal relations among objects defined entirely by those relations. We would have no access to the familiar world of substantial objects that are the enduring instantiations of natural kinds.

There are, then, two principles required for successful inductive inference: one of efficient causality, "in virtue of which phenomena form a series wherein the existence of the preceding determines the existence of the following," and one of final causality, "in virtue of which these series, in their turn, form systems, in which the idea of the whole determines the existence of the parts" (*FI*, 12/6). But is there any way to justify these principles?

Lachelier thinks we can do so by showing that the principles are essential to the "concrete and particular acts by which thought constitutes itself while seizing immediately upon reality" (*FI*, 14/7). But neither empiricism nor rationalism can make the case. If, with empiricists, we hold that knowledge is merely of phenomenal appearances, then – as the failure of Mill's justification of induction shows – any argument for induction will have to be from phenomenal experience and therefore valid only if circular. If, on the contrary, as rationalists maintain, knowledge is of sensorily inaccessible things-in-themselves, then induction could in principle be justified on the basis of truths about the structure and stability of the substances or causes beneath appearances. But we have no access to such substances and causes, and evocation of them is merely "the assertion of a problem transformed into its solution" (*FI*, 36/20). (Lachelier also maintains that, even if there were, say, an intellectual

intuition of things-in-themselves, this would still give them only as they appear to us intellectually at a given moment, not as they are apart from our experience of them.)

There is, however, another alternative, based on the Kantian claim "that whatever may be the mysterious foundation beneath phenomena, the order in which they follow each other is exclusively determined by the requirements of our own thought". To see if Kant might be right, Lachelier says that we should try to establish the two principles of induction "by showing that if they did not exist then human thought would not be possible" (*FI*, 42/23). A successful demonstration will confirm Kant's view of the active role of the mind in knowledge and justify induction.

Thought is about the phenomena (sensations) of our world. But a thought is not itself another phenomenon nor is it about just one phenomenon. It requires a subject, distinct from the succession of phenomena, that exists as a unity over against this succession. Traditional (pre-critical) views locate this distinctness and unity in the thinking subject's existence as a metaphysical substance separated from the world it experiences. But, given this separation, there is no way to understand how thought could ever know the world outside of it. It would have to remain enclosed in its own autonomous existence. For knowledge to be possible, thought must rather be a unity in virtue of its relation to the world of phenomena; that is, thought must be one precisely because it unites the succession of phenomena into a single world that is the object of its experience and knowledge. The unity of thought is not that of an autonomous metaphysical act but that of a form providing coherence and hence intelligibility to the flux of sensations.

Reflection on our experience immediately reveals that one aspect of this coherence and intelligibility is the single time and space in which phenomena occur. But, Lachelier argues, space and time alone are not sufficient to unify phenomena into a coherent world. Phenomena existing in the same space and time could still occur in total independence of one another and never provide a coherent object for thought. Phenomena must also be unified through their interconnection by laws of necessary causal succession. Such laws of efficient causality provide the unity needed for phenomena to be coherent objects of thought. "Thus, all phenomena are subject to the law of efficient causes, because this law is the only foundation to which we can attribute the unity of the universe, and in its turn this

unity is the supreme condition of the possibility of thought" (*FI*, 47/26).

Lachelier further maintains that the phenomenal world, precisely because it is governed by efficient causality, must be a mechanistic world; that is, a world consisting entirely of motions determined by their antecedent motions. Phenomena occur in space and time; consequently their unity must be a unity that exists through space and time. But the only possible form of unity through space and time is continuous movement, understood as continuous change of spatial location over time. All phenomena must be movements. What we have, then, is a system of movements governed at every point and moment by strict laws of efficient causality: a mechanistic universe. Our Kantian turn seems to have led to what Lachelier calls an "idealistic materialism" (*FI*, 69/38). But we have not yet taken account of the role of final causality.

It might seem that we cannot effect a Kantian derivation of final causality since the distinctness and unity of the subject (and hence the possibility of thought) are guaranteed by efficient causality alone. But Lachelier maintains that the unity so guaranteed is "incomplete and superficial" (*FI*, 76/42). This is because an object given simply as part of a mechanical system of efficient causes is not given as a full-blooded thing in its own right (an instance of a structured kind) but only as, so to speak, a place-holder in the causal network. It has no intrinsic content but exists only through its causal relations to other items in the network. This corresponds to the point made above, in our analysis of inductive inference, that efficient causality by itself guarantees only that the same results follow from the same conditions, not that the same conditions will regularly recur; regular recurrence is necessary for the stability of enduring kinds. This sort of stability (or, equivalently, a world of things with enduring natures) is, as we have seen, guaranteed only by a principle of final causality. Lachelier acknowledges that thought could exist in the diminished world of mere efficient causality. But he maintains that this would be a "purely abstract existence", because it would be in a world with no substantial content. Such an existence "would be, so far as thought is concerned, a state of illusion and death" (*FI*, 79/44). He therefore concludes that the fully real (concrete) existence of consciousness requires a principle of final causality.

The reality of final causality radically transforms Lachelier's picture of the world. The truth of cosmic reality is not "idealistic

materialism", which in fact expresses merely the abstract mechanical skeleton of a robust purposive nature. Movement still conforms to the patterns of mechanical laws, but it is now seen to be ultimately derived from forces that express the world's intrinsic teleology. These forces are not intervening outside causes; they flow directly from the internal organization of natural objects. Indeed, Lachelier insists that force is not a thing in itself but "only the tendency of movement toward an end" (*FI*, 93/51). Most important, the priority of (teleological) force over movement implies the priority of freedom over determinism. An end cannot externally determine the means (movements) that bring it about because the end does not exist until the means have produced it. Rather, "the means dispose themselves in the order fitted to realize the end" (*FI*, 87/48). Consequently, finality requires that the forces informing natural movements be spontaneous tendencies to the relevant ends. On the abstract level of efficient causes, the purely quantitative formal structures of natural developments are still mechanically determined. But the qualitative content of concrete things is the contingent product of spontaneous activity.[29]

Mere spontaneity is not full freedom. Every part of nature enjoys a certain freedom (and hence life and even thought) in that its goals are achieved by its innate tendency toward them, not by mechanistic determination. But freedom in its full sense consists "in the power of varying one's purposes and in conceiving new ideas" (*FI*, 97/53–4). Animals act with a freedom limited to the precise means of fulfilling goals set for them by nature, as when a bird chooses materials and locations for its nest. Rational beings such as humans, however, employ intelligence not just to achieve pre-given goals but also "to conceive an infinite number of pure ideas which our will then undertakes to realize externally" (*FI*, 98/54). Freedom properly understood is not, as so many philosophers have thought, the will's unconstrained choice of means of action; it is rather the intellect's invention of new goals of action. Lachelier argues that freedom in this sense is required by the principle of final causality "since the systematic unity of nature could not be realized except as the result of original invention and creations properly so-called" (*FI*, 97/54).

We see, then, the transformation effected by the need to include

[29] In his *Études sur le syllogisme*, Lachelier argues that the syllogism provides the appropriate logic for the qualitative while mathematical logic (including the logic of relations) is appropriate for the quantitative.

the principle of final causality in our account of knowledge and the world: "the realm of final causes, by penetrating the realm of efficient causes without destroying it, exchanges everywhere force for inertia, life for death, freedom for fatality" (*FI*, 101/56, translation modified). The result is no longer the "idealistic materialism" of the world as a nexus of efficient causes but what Lachelier calls a "spiritualistic realism", in which mechanism is subordinated to finality and "every being is a force, and every force is a thought which tends toward a more and more complete consciousness of itself" (*FI*, 102/56, translation modified). Lachelier's final insistence on "realism" rather than "idealism" reflects not an assertion of a reality independent of thought – he remains an idealist in rejecting this – but rather an insistence on the metaphysical autonomy of individual persons, which he refuses to assimilate to any absolute thought. This keeps open a path to Lachelier's Catholic commitment to an afterlife of personal salvation and immortality. But this is not a path that he thinks can be traveled by philosophical reflection since on it we "cross, by an act of moral faith, beyond the boundaries both of thought and of nature" (*FI*, 102/56).

Lachelier published very little beyond his thesis on induction,[30] but his influence was immense, particularly through his teaching at the École Normale, where he was *maître de conférences* (a post roughly equivalent to a Reader at a British university or an American associate professor) from 1864 to 1875, and, like Ravaisson, through his later position as chair of the committee that set the *agrégation* in philosophy. His writing and teaching set high standards of conceptual subtlety and rigor and also made serious engagement with Kant *de rigueur* among his pupils, including, most prominently, Boutroux and Bergson.[31]

Émile Boutroux (1845–1921) dominated the academic philosophy of the Third Republic through World War I. He followed his teacher, Lachelier, as *maître de conférences* at the École Normale (1877–86), where he taught Bergson, Blondel, and Durkheim. He

[30] We should, however, mention his famous article, "Psychologie et métaphysique" (translated as "Psychology and Metaphysics" in *The Philosophy of Jules Lachelier*), first published in 1885, in which Lachelier develops his idealism via a description of psychological experience (developed in opposition to positivist reductionism) and with a particular emphasis on the role of the will.

[31] Bergson was not formally a student of Lachelier, since he did not enter the École Normale until 1878, three years after Lachelier stopped teaching there. But Lachelier was a strong influence on Bergson, who dedicated his doctoral thesis to him.

formulated his major philosophical ideas in his thesis, *La contingence de les lois de la nature* (1874). His later work consisted of reformulations of these views (particularly in *De l'idée de loi naturelle dans la science et la philosophie contemporaine* [1895]) and numerous important studies in the history of philosophy (from 1888 to 1902 he was professor of the history of modern philosophy at the Sorbonne). Boutroux was also a leading figure in "official" French academic life, a role that, perhaps, led to his writing, in 1915, *Philosophy and War*, one of those unfortunate books connecting German aggression with German philosophy.[32]

Boutroux shared the general concern with the tension between science and freedom. He endorsed Lachelier's picture of a world in which free and purposive creativity had priority over the abstractions of scientific causality but was dissatisfied with Lachelier's Kantian willingness to accept a total scientific determinism for the phenomenal world. Because our lives are led in this world, Boutroux argues, this concession to determinism means that any given human action is the necessary product of past actions. Perhaps I have a noumenal nature (or character) that has been created by a choice outside the deterministic network. But then my freedom has been entirely spent in the creation of this character, which becomes the determining cause of all my individual actions. "A strange doctrine", he concludes, "one that regards . . . repentance, conquests of self, struggles between good and evil, as but the necessary events of a drama the issue of which has been decided upon beforehand". Moreover, Boutroux adds, even this character cannot be properly regarded as my free creation. As a part of the intelligible (phenomenal) world, it too must belong to a deterministic system. The Kantian effort at reconciliation of freedom and determinism succeeds only in placing freedom and hence "morality in a sphere inaccessible to human consciousness". As a result, "this hypothesis would prevent us from passing any moral judgment either on others or on ourselves".[33]

Boutroux concludes that the assertion of human freedom must be at the expense of a deterministic view of phenomena; to justify the claim that we are free, we must establish that the phenomenal world described by science is indeterministic. To say that the world is

[32] For an American example of this genre, see George Santayana, *Egotism and German Philosophy*.

[33] *La contingence de les lois de la nature*, 169, 170.

indeterministic is to say that the laws governing it are not necessary. Here Boutroux has in mind three senses of necessity: the analytic necessity of logical truth, the synthetic a priori necessity of Kantian truths about the conditions of possible experience, and the empirical necessity of de facto constant correlations.

He undertakes to show that, in all of these senses and at every level, there is no necessity in the world. His approach is nothing if not comprehensive and systematic.[34] It begins by distinguishing a series of six successively more specific levels of description. The first level (that of "being", in Boutroux's terminology) is simply that of an aggregate of separate individuals. Subsequent levels correspond to further specifications of these individuals. The second level (that of "genera") adds that the individuals have natures allowing them to be divided into qualitatively similar classes; the third (that of "matter") makes the individuals material beings, extended in space and time; the fourth (that of "bodies") adds that they are structured material substances, for example, atoms or compounds of atoms; the fifth (that of "life") that they are organisms; the sixth (that of "man") that they are intelligent. For each level, Boutroux argues that there is neither external nor internal necessity; that is, the level is not required to exist in virtue of a preceding level (external necessity), nor, given its existence, are there necessary laws governing its development (internal necessity). In so arguing, he must, of course, show that there is no external or internal necessity of any of the three types (analytic, synthetic a priori, and empirical). He must, then, provide six arguments against necessity for each level, for a grand total of thirty-six arguments. There are, however, just a few basic patterns to Boutroux's arguments.

These patterns are well illustrated in his treatment of being, the first level of reality. Here we begin with nothing more than a collection of individual beings and do not assume that they are intelligent, alive, substantial, material, or even grouped into distinct genera. Boutroux's first question is about external necessity: is there anything outside the realm of actual being (in the realm of mere possibility) that requires the existence of a collection of beings? Certainly, there is no analytic necessity, no contradiction in asserting that a given collection of beings does not exist. An existent is a

[34] Mathieu Schyns offers an excellent account of Boutroux's sometimes difficult argumentation in *La philosophie d'Émile Boutroux*.

synthesis of possibility and actuality (the actualization of a possibility), and there is no logical necessity for any such synthesis. Nor can it be maintained that the very possibility of experience requires the actuation of a specific set of possible beings. In the domain of experience, the possible is simply that which may or may not be given as an object of experience. Our experiential knowledge (science) tells us about connections that exist among the actualized possibilities, but the mere fact of experience does not require that certain possible beings be actualized. Nor, finally, is it possible to argue that we know as a matter of empirical fact that any of the objects of our experience *had* to be actualized.

So the existence of beings is a contingent fact, not an externally imposed necessity. But, given this existence, are there necessary laws for the development of a collection of beings (i.e., internal necessity)? Boutroux first argues that there can be no question of a logical necessity because developmental laws require us to think of the beings they govern as in certain respects stable and unchanging, whereas the mere idea of a collection of beings is consistent with their being in random flux. As to the possibility of a Kantian a priori causal connection, Boutroux agrees that the idea of a productive cause would have to be a priori, since it goes beyond anything given in our experience. But he notes that, precisely for this reason, we have no basis for postulating a metaphysical connection that is not grounded in experience. It might be maintained that there is still the empirical necessity of a scientific law, which is revealed by experience and does determine that one phenomenon follow upon another. But Boutroux argues, first, that even an exact correspondence between cause and effect would not prove a necessary connection. Even if, for example, observation of gases showed that the product of pressure and volume was always exactly equal to a constant multiplied by temperature, this might merely show that gases have always behaved this way; deviations might still be possible. But more important, he argues, is the fact that our observations are never able to show the exact validity of a law. We measure pressure, volume, and temperature only up to a certain range of uncertainty, and connections between these phenomena may be indeterminate precisely within this range.

Boutroux deploys similar arguments for the higher levels of reality. He excludes logical necessities of existence or developmental laws by showing that each successive level involves new features and laws

that are not implied by the preceding levels. For example, a world of non-material genera and species is discontinuous, whereas a world of matter is extended and hence continuous; and matter may vary in size and position without changing qualitatively, so that the qualitative laws of non-material genera cannot determine purely quantitative relations among material entities. Kantian a priori claims of existence or causal connection he rejects by showing that our actual experience of phenomena does not support such claims. For example, although metaphysicians may understand the solubility of sugar in water in terms of unobservable powers informing these two substances, scientific observation reveals only that there is a constant correlation between sugar's melting and its being put into water. Finally, Boutroux rejects claims of empirical necessity by arguing, first, that experience never excludes the possibility that a given level of object might not exist. For example, even if we knew that living cells were the products of certain chemical reactions, we would not know that such reactions had to occur or that cells did not merely happen to follow from them. And Boutroux always excludes the empirical necessity of laws by appealing to the inexactness in our knowledge of the correlations they express. For the case of organisms, he suggests that the laws governing them (e.g., the law of adaptation, which says that species vary to survive in new circumstances) are so imprecise that biology does not in fact constitute a positive science.

Boutroux's defense of indeterminism has a distinctly positivist, anti-Kantian, anti-idealist bent. He takes for granted the authority of scientific descriptions, rejects logical analysis of concepts as irrelevant to questions of truth about the world, and insists on an empiricist reading of immediate experience that replaces Kantian necessities with Humean correlations. This positivist bent is even more obvious in *De l'idée de loi naturelle dans la science et la philosophie contemporaine*, where Boutroux makes his case by a direct analysis of scientific results rather than by abstract philosophical argumentation.[35] But his account is also relentlessly anti-reductive, with each successive level of reality distinguished by new traits (the continuity of matter, the self-determination of life, the moral freedom of human beings) that cannot be explained via "lower" categories. Moreover,

[35] Here, as we shall see, Boutroux's views have important similarities to those of his brother-in-law – with whom he also had close intellectual contacts – Henri Poincaré.

the distinctive features of each ontological level are always further and richer achievements of freedom. Boutroux deploys positivist epistemology in the service of spiritualist ontology. Ravaisson and Lachelier might well question his means, but they would agree with his result.

CHAPTER 2

Science and idealism

> It's like the rules of logic or scientific laws, reality conforms to them more or less, but remember the great mathematician Poincaré: he's by no means certain that mathematics is a rigorously exact science.
>
> (Marcel Proust, *In Search of Lost Time*, III, 149)

The narrative of French philosophy during the first two decades of the twentieth century consists of three intertwined stories: the development of philosophy of science as an independent discipline, the solidification of university idealism in the philosophy of Léon Brunschvicg, and the brilliant rise of Bergson's spiritualist metaphysics. This chapter treats the first two topics, and the following chapter is devoted to Bergson.

PHILOSOPHERS OF SCIENCE: POINCARÉ, DUHEM, AND MEYERSON

Although French philosophers firmly rejected positivism, they still recognized the centrality of science for philosophical reflection. Lachelier and Boutroux, in particular, insisted on the need to construct a unified account of nature that showed how the truths of science and of human freedom combined in a coherent whole. Such a synthesis involved exhibiting the limitations of science (indeterminism, absence of finality) that require us to complement it with metaphysical accounts if we are to describe the full concreteness of reality. This enterprise of developing a metaphysics of nature called for serious philosophical reflection on scientific knowing, which in turn required a thorough acquaintance with the methods and results of science. Moreover, the survival of the Comtean idea that science had to be understood as a historical

phenomenon[1] led to a rapid development of the epistemology of science, a historically based effort to understand the structure of science as a cognitive enterprise. In principle, the new epistemology of science could have remained entirely subordinated to the goals of the metaphysics of nature. In practice, it emerged as more and more an autonomous study of science in its own terms, with decreasing concern for including scientific results in a synthetic metaphysical view of nature as a concrete whole.

The move to autonomy is perhaps clearest in the philosophical reflections of Henri Poincaré (1854–1912). As a distinguished mathematician and scientist, Poincaré had little training in philosophy and no interest in the spiritualist and idealist orientation of philosophers such as Ravaisson and Lachelier. (Neither are mentioned in his three main books on philosophy of science, and even Bergson receives only one passing reference.) On the other hand, Poincaré was well aware of current philosophical issues about the nature and limitations of science and was very sympathetic to the ideas of Boutroux, his friend and brother-in-law, about the contingency of laws. Poincaré's writings on methodological topics set a model for a new philosophical approach to science, one that placed a high premium on careful discussion of the conceptual foundations of particular theories and, on this basis, developed sophisticated analyses of the key concepts of observation, law, theory, and explanation. He was, along with Mach and Duhem, a founder of the philosophy of science that became so central in twentieth-century analytic philosophy.

Poincaré was, however, less naively empiricist than the early logical positivist philosophers of science who came after him. Reflecting the Kantianism of his milieu, he acknowledges the role of theoretical interpretation in scientific observation, and his sophisticated conventionalism gives the mind an active role in the constitution of empirical objects and truth. But his work derives more from reflection on scientific practice than from philosophical principle, leading him, for example, to different accounts of conventions in geometrical axioms, empirical generalizations, and theories; and his a priori categories, such as simplicity, are more a function of pragmatic utility than of transcendental conditions of experience.

[1] In the first lesson of his *Course in Positive Philosophy* (1830–42), Comte had emphasized the need to trace "the course actually followed by the human mind in action, through the examination of the methods really employed to obtain the exact knowledge that it has already acquired" (*The Essential Comte*, 32).

Among Poincaré's most important views are his account of the roles of hypotheses in science and his defense of the objectivity of scientific knowledge. In *La science et l'hypothèse*, he distinguishes several kinds of hypotheses, each with a distinctive and essential role in scientific inquiry (*La science et l'hypothèse* [*SH*], 3/28). The first kind comprises general claims testable by observation. They are essential to science's project of foreseeing the future, an enterprise inconsistent with the popular view of science as simply a body of certain facts, proven by observation. General empirical hypotheses are by their very nature an extrapolation beyond what observation gives and so are always open to refutation by subsequent experience. They are most often explicitly formulated generalizations, supported but not logically entailed by experimental data; for example, Kepler's laws of planetary motion, based on Tycho Brahe's observations of the solar system. There are also unconscious hypotheses of this sort, unthinking assumptions, often engrained in our language, about how nature must behave. (Poincaré cites examples from Ampère's work on electrodynamics and notes the value of rigorous mathematical formulations in bringing such assumptions to light.) Poincaré notes that scientists should try to make hypotheses one at a time, so that they will know just what has been refuted by a negative experimental result. (Duhem, as we shall see, will question whether this is in fact possible.) Poincaré argues that a falsified hypothesis is not a failure of science. A scientific hypothesis is formulated on the basis of what we have reason to expect, and the failure of our expectations points to the existence of a new phenomenon that represents an advance in our knowledge. He also distinguishes a subclass of empirical hypotheses that are "perfectly natural and from which one can hardly escape" (*SH*, 187/135). Examples of such assumptions (no doubt often unconscious precisely because they are so natural) are that the influence of very distant bodies is negligible, that quantitative effects vary continuously with their causes, and that nature behaves according to basic principles of symmetry. Such hypotheses, for all their obviousness, may turn out to be falsified by observation, although they are so fundamental that "they are the last that ought to be abandoned" (*SH*, 188/135).

Poincaré also thinks that some scientific hypotheses are not empirically testable at all. The most important examples are claims that seem to be substantive empirical hypotheses but turn out to be "reducible to disguised definitions or conventions" (*SH*, 3/28).

Consider, for example, the question of the geometrical structure of physical space. For a long time, there seemed to be no doubt that this was Euclidean, since there seemed to be no coherent alternative to the familiar axioms of Euclidean geometry (such as, for example, that two lines intersect in at most one point). The only question concerned the nature of the necessity of these axioms: were they analytic truths, derivable from the very definitions of basic geometrical terms (as Leibniz held) or were they, as Kant maintained, synthetic a priori truths required as conditions of possible experience? But according to Poincaré, the development in the nineteenth century of alternative, non-Euclidean geometries refuted both of these claims by showing that the Euclidean axioms were not necessary. Such geometries contained axioms contrary to those of Euclid (those of Riemannian geometry, for example, allowed distinct lines to intersect in more than one point) and could, moreover, be proved to be self-consistent if Euclidean geometry was. This put them on a logical and conceptual par with Euclidean geometry.

Of course, even if Euclidean geometry is not the only conceptual possibility, it might seem to be the only one supported by empirical evidence. Do precise measurements not show, for example, that the three interior angles of a triangle add up to 180 degrees? (Non-Euclidean geometries require sums lesser or greater than 180 degrees.) One difficulty with this idea – suggested by Boutroux's treatment of measurement – is that the non-Euclidean nature of physical geometry might be apparent only beyond the limits of the accuracy of our current measurements. But according to Poincaré even unlimited accuracy in measurement could not establish the empirical truth of one geometry over another because we would always be free to reinterpret the metric (that is, the way in which measuring instruments vary in different parts of space) used to make the measurements. Perhaps, for example, if we assume that our measuring rods are perfectly rigid bodies, our measurements will support Euclidean geometry. But the very same measurements will support a non-Euclidean geometry on the assumption that the lengths of our rods vary with their position. (We might, of course, try to measure our measuring rods at various locations – say by timing light rays that we shot back and forth along their length. But the result of these meta-measurements would depend on equally untestable assumptions about the speed and straightness of the light rays.) Poincaré concludes, then, that the question of the

geometry of physical space can be resolved only by our specifying a *convention*.

This does not, he insists, put the nature of space up to our arbitrary choice. Our choice of a convention is not a whim; it is based on powerful considerations of convenience (e.g., simplicity). Our choice is free in the sense of not compelled by logic or observed facts, but it is not arbitrary. In fact, Poincaré maintains that "Euclidean geometry is, and will remain, the most convenient" (*SH*, 70/65), not only because of our familiarity with it and its obvious adequacy to everyday experiences, but also because of its greater intrinsic simplicity.[2]

Poincaré also thinks that some of the fundamental principles of physics are conventional. Here we often begin with an empirical hypothesis, say that bodies attract one another in inverse proportion to their distance or that energy is conserved in closed systems. There is considerable evidence for the hypothesis; it has very fruitful consequences and eventually becomes central to our way of thinking about physical phenomena. At this point, we begin maintaining the hypothesis even in the face of contrary evidence. If two bodies seem to move according to something other than the inverse square law, we take this as evidence that there are other forces operative, not that the law is invalid. If energy seems not to be conserved, we assume that the system is not closed. Eventually, what was an empirical hypothesis becomes a principle true by definition, and the rest of our physics is built around it. (We can, of course, decide to cease treating a principle as a definition, but that too is a conventional decision.) Poincaré showed how the history of modern physics supports his distinction between empirical hypotheses and definitional principles.

Poincaré was forced to a careful consideration of the objectivity of science by the writings of one of his students, a brilliant mathematician-turned-philosopher, Édouard Le Roy. Le Roy argued that Poincaré's demonstration of the conventionality of certain scientific principles should be extended to all of science: "the scientist creates [*fait*] the order and determinism that he imagines he discovers in things".[3] Why, after all, can we not extend to all scientific claims the

[2] This view has, of course, been proven wrong, at least for the purposes of theoretical physics, by the general theory of relativity, which describes the universe in terms of a Riemannian geometry of variable curvature.

[3] Édouard Le Roy, "Science et philosophie", 513.

analysis that Poincaré gives for the law of gravitation and the conservation of energy? It may seem that this suggestion misunderstands Poincaré's analysis. The conventional character of certain scientific hypotheses was uncovered, in effect, by separating them into two components, one conventional, the other empirical. So, Poincaré points out (*La valeur de la science* [*VS*], 260/334–5), the statement *The stars obey Newton's laws* is broken up into: *Gravitation obeys Newton's laws* and *Gravitation is the only force acting on the stars*. The first component statement may be treated as a conventional definition, but then the second must be regarded as an empirical hypothesis, falsifiable by observation. The latter, then, remains as a claim of fact on which the truth of the Newtonian theory depends.

But such a response will not satisfy Le Roy, who maintains that even scientific facts are created by the scientist: "Far from being imposed on him from outside, scientific facts are, in truth, made [*faits*] by the scientist who asserts them."[4] Here Le Roy's thought, inspired by Bergson, is that the sole reality truly given to the mind is an unstructured continuum of passing time (*la durée*).[5] This continuum is not accessible to the intellect and is revealed only by an extra-intellectual intuition. All the structures of science are imposed by the mind on this continuum: "The facts are carved out [*taillés*] by the mind in the amorphous matter of the Given."[6] If so, there are no objectively given scientific facts, merely the free decisions of the intellect to divide reality up in certain conventional ways. The point of this division is to provide us with rules of action as guides toward practical goals. The rules work, but only because we have formulated them so that they will. As a result, "our calculations are not, properly speaking, true, but they are effective. Their favorable results are less the success of our science than of our action."[7]

Poincaré's immediate response to this extreme claim is that the very success of our rules of action is proof that science is not purely our creation: "If science did not succeed, it could not serve as [a] rule of action." Further, the practical success of science derives from its ability to predict the future. Accordingly, "there is no escape from this dilemma: either science does not enable us to foresee, and then it is valueless as a rule of action; or else it enables us to foresee . . .

[4] "Un positivisme nouveau", 145.
[5] See below, chapter 3.
[6] "Science et philosophie", 517.
[7] "La Science positive et la liberté", 338–9.

and then it is not without value as [a] means of knowledge" (*VS*, 240–1/324).

This response is effective in principle, but how do we know that it does not tell against Poincaré as well as Le Roy? Perhaps Poincaré's introduction of convention into our understanding of science undermines the idea of an objective scientific fact and makes even his own position vulnerable to his dilemma. To respond adequately to Le Roy, Poincaré needs an account of the nature of scientific facts.

He has such an account, based on a distinction, acknowledged by Le Roy, between brute facts (*les faits bruts*) and scientific facts. Poincaré's complaint against Le Roy is that he tries to separate entirely the brute fact from scientific work, so that the first exercises no constraint on the second. Poincaré maintains that a scientific fact is simply a translation of a brute fact into a particular (scientific) language and, as such, has to follow constraints imposed by the brute fact. He offers the example of the "facts" about an eclipse of the sun. There is a continuum, beginning with the common-sense fact that it is getting dark, and moving through ever higher levels of scientific interpretation such as, *An eclipse occurred at nine o'clock*, *An eclipse occurred at the time predicted by Newton's laws*, and *The eclipse occurred because of the earth's revolution around the sun*. In fact, even our first "common-sense" fact involves a minimal interpretation of "the impression of obscurity" (*VS*, 245/327), so that it is really this impression rather than the assertion "It is getting dark" that is the brute fact. At each stage beyond the sheer impression of darkness, this brute fact is expressed in increasingly rich and nuanced language. But, Poincaré maintains, each such expression is constrained by the brute fact it is trying to formulate. Granted, we choose to express the fact through the simple qualitative categories of dark and light or through the far more sophisticated categories of the heliocentric theory. But in all cases, given the categories we have chosen, some formulations are better than others (it would not do to say *It is getting lighter* or *The sun is in front of the moon*); and this is because of the controlling role of the brute fact we are trying to express.

This response makes scientific and common sense, but it scarcely resolves the philosophical problems raised by Le Roy's position. For the dispute between him and Poincaré depends on the nature of "brute facts": whether there are any such things and, if there are, whether they have the minimal conceptual structure required to

constrain "scientific facts". Resolving such issues would require a much closer probing than Poincaré is prepared to undertake of the precise nature of the concrete experience in which we encounter alleged "brute facts". Such probing will be a high priority for subsequent philosophers of experience such as Bergson and, later, Sartre and Merleau-Ponty. But Poincaré has little interest in the nature of experience, just as he has little interest in Kantian questions about the conditions of possible experience. He is, perhaps rightly, content with our humdrum, common-sense understanding of "fact" and "experience".

Pierre Duhem (1861–1916) was also a prominent scientist (and an even more prominent historian of science), but, unlike Poincaré, very interested in fundamental issues of epistemology and metaphysics. Nonetheless, his work, like Poincaré's, helped constitute philosophy of science as an autonomous discipline. In *La théorie physique* Duhem insisted on a sharp split between the world known by science and the world of metaphysical truth. In his view, the object of science was merely the sensory appearances of things. The real world beneath these appearances – for Duhem a domain of Aristotelian substances – was inaccessible to scientific scrutiny although open to nonempirical philosophical reasoning. Duhem enforced this epistemological dualism with his contention that empirical science has no explanatory capacity. To explain is to trace phenomena back to their real causes in the realm of metaphysical substances. Science, having no access to such causes, can merely formulate and systematize empirical generalizations describing the phenomena.

According to Duhem, scientific practice has often been confused by efforts to use theories to explain. To eliminate this confusion, he distinguishes between the explanatory and the representational aspects of any given theory. What a theory represents are phenomena. Science concerns itself with measurable features of the phenomenal world and associates them with mathematical symbols. These symbols, in turn, are connected to one another in mathematical propositions. The propositions are formed with a view to logical consistency and considerations of convenience (e.g., simplicity). They are also constructed in the hope that conclusions deduced from them will, when translated back into observational terms, accord with experienced phenomena. Duhem insists, however, that there is no reason to think there is one particular set of mathematical propositions observationally superior to all other sets. Many different

ways of representing phenomena mathematically would yield interesting and useful conformities with the phenomena. There is, accordingly, no reason to think that the mathematical structures of even the most empirically successful theory tell us what underlies and explains phenomena. Those who speak of theories as explaining phenomena, rather than just describing and predicting them, misunderstand the significance of theory construction. Such misunderstanding leads to a fruitless concern with the details of theoretical structures, based on the false idea that these details provide the deep truth about nature. In fact they are just convenient – and hardly unique – tools for representing phenomena.

Corresponding to Duhem's distinction between experienced phenomena and theoretical representation is his distinction between "practical facts" and "theoretical facts". A practical fact is a description of phenomena in ordinary observational language (for example, *This paperweight is heavy*, or a basic generalization such as *Heavy objects fall to earth when dropped*). A theoretical fact is the translation of the practical fact into a symbolic language (for example, *This body of mass* m *is being acted on by a force* g). This distinction is very similar to Poincaré's between "brute facts" and "scientific facts", but in his *La théorie physique*, Duhem rejects Poincaré's view that the scientific description is *merely* a (convenient) translation of the brute fact.[8] He points out that, just as there are numerous alternative scientific descriptions of any given brute fact, so too there are numerous brute facts with the same scientific description. *There is a current of* n *amps in the circuit*, for example, translates brute facts about the behavior of any number of experimental set-ups for measuring electric current. Poincaré admits this but says that it merely reflects the variety of laws connecting currents with different ways of measuring them. Duhem agrees but maintains that this shows that our theoretical description of the brute fact as a current in a circuit is not a mere translation but a complex theoretical interpretation of the fact. His conclusion is that theoretical facts are not basic scientific truths; they are already complicated instruments of calculation that have no truth value in their own right.

It follows directly that scientific laws and theories cannot be

[8] See Duhem's comments on Poincaré's distinction in *The Aim and Structure of Physical Theory* [*La théorie physique*]. 149–51.

regarded as simply inductive generalizations from observed (practical) facts. The initial scientific descriptions of such facts already assume a theory about them. But Duhem does not see this as showing that laws and theories are, as Le Roy maintains, the arbitrary creations of our minds. As we have seen, laws and theories can be rejected if they have consequences that, when translated back into the language of practical facts, turn out to be false. Of course, Duhem also famously holds that there can never be a decisive refutation of any single theoretical hypothesis because any empirically meaningful deduction will require several hypotheses to derive its conclusion. (There will, for example, be hypotheses giving theoretical descriptions of our measuring apparatus or stating the absence of various distorting forces.) Any empirical refutation will show only that at least one of the relevant hypotheses is false. Duhem's point here, however, is not the skeptical one that no test can justify rejecting a hypothesis. He is simply noting the inadequacy of pure logic to ground such a rejection. There is, he says, such a thing as "good sense", which enables us to make rational judgments about cases "that do not fall under the hammer of the principle of contradiction".[9] It may be difficult for scientists to achieve consensus about such cases, but eventually there will emerge a shared judgment about what it is rational to conclude.[10]

Duhem's account of science is, as he emphasizes, strictly positivist in the sense that it rejects any underlying ontology for scientific theories. The metaphysical content of science is nothing beyond the common-sense world given in the "practical facts" of ordinary experience. Theories function simply as instruments of calculation without revealing the reality beneath the appearances of ordinary experience, which is why they have no explanatory force. Scientific results are, therefore, strictly independent of any metaphysical claims: they can neither establish nor refute any theory about the real natures of things. But Duhem thinks nonetheless that we can

[9] *The Aim and Structure of Physical Theory*, 217.

[10] On a related issue, Duhem agrees with Poincaré that there are cases of theoretical principles that are not open to empirical refutation because they come to have the status of definitions. But he rejects Poincaré's view that there are some principles (e.g., the axioms of Euclidean geometry) so entrenched in our thought that we could never reject them. "The history of physics shows us that very often the human mind has been led to overthrow such principles completely, though they have been regarded by common consent for centuries as inviolable axioms" (*The Aim and Structure of Physical Theory*, 212).

have knowledge of the reality beneath appearances and that, moreover, scientific results are not irrelevant to that knowledge.

Developing a metaphysical account (or, as Duhem often puts it, a cosmology) requires first of all close attention to the practical facts given in experience, apart from any theoretical interpretations. These common-sense truths are the fundamental data of metaphysics. The trick is to separate them from the theoretical accretions that we so easily confuse with the plain truth. Here is required the finesse of the subtle and imaginative mind (*l'esprit de finesse*), as opposed to the logical rigor of the geometrical mind (*l'esprit géométrique*).[11] Given an adequate grasp of the practical facts, pure reason can penetrate to an understanding of the metaphysical reality lying beneath them. For Duhem, the core of Aristotle's philosophy of nature is still the best expression of metaphysical truth, although this truth must be separated from the mass of outdated science that Aristotle and his successors built up around it.

Duhem recognizes our inveterate tendency to move from the predictive success of scientific theories to a belief that they are true, to assume, as he puts it, that our most successful theories provide a "natural classification" of objects, rather than just a convenient but dispensable system of conceptual organization. He insists that this move is a matter of faith rather than knowledge; ontological inferences from even the best current theory are ungrounded, since the problems of the moment often require theoretical structures that will have to be subsequently abandoned. But he also agrees that it is possible to construct good metaphysical arguments from the history of science, when, as in fact happens, this history exhibits a convergence toward a single unified theory of all natural phenomena. There is absolutely no empirical, scientific reason to explain or expect such convergence — no reason why adequate description of the phenomena should not require two or more mutually irreducible theoretical systems. But the fact of convergence supports the conclusion that there is a coherent reality underlying the world of appearances. Moreover, Duhem maintains, there will be an analogy between the scientific theory that gives an ideally adequate description of phenomena and the cosmology that explains why the phenomena are as they are. With a thorough grounding in

[11] For Duhem's version of this Pascalian distinction and his application of it to the history of science, see *The Aim and Structure of Physical Theory*, chapter 4.

the history of science, we can discern an overall direction in the development of theoretical structures, from which we can make an educated guess about what would be the nature of an ideally adequate theory. His own reading of the historical data was that the convergence is not toward modern atomistic theories but toward a generalized thermodynamics strongly analogous to Aristotelian natural philosophy.

Duhem's endorsement of Aristotelianism is not unconnected with his Catholic religious faith. Certainly, he saw his belief as requiring a "spiritualist" metaphysics such as he found in Aristotle and his medieval successors, as opposed, say, to a metaphysical materialism or naturalism. Nor did Duhem deny that it was important to his faith to show that there could be no contradictions between Catholic doctrines and scientific results. But he insists that his view of science was developed in complete independence of his religious commitment and should be entirely convincing to nonbelievers. In this sense, it is not, as Abel Rey suggested, the "physics of a believer".[12]

Duhem's positivist rejection of science as explanatory and realistic was challenged by the work, likewise deeply informed by the history of science, of Émile Meyerson (1859–1933). Meyerson first argues that explanation has been the consistent aim of science throughout its history. Scientists from Aristotle through Galileo and Newton to Maxwell and Einstein have tried to discover the true nature of physical reality and to use this as a basis for explaining observed phenomena. Duhem, of course, agrees but sees the drive for explanation as a dead-end that has distracted scientists from their true business of describing phenomena. But according to Meyerson, when scientists "describe" phenomena they are really replacing the inadequate interpretations of common sense with more accurate scientific interpretations. He accepts the distinction between brute or practical facts and theoretical or scientific facts and agrees with Duhem that the distinction is between two different interpretations. "The scientist *makes* scientific facts and not brute facts", but, in

[12] Abel Rey, "La philosophie scientifique de M. Duhem", 44ff and 133ff. Duhem's response, "The Physics of a Believer", is included as an appendix to *The Aim and Structure of Physical Theory*. Édouard Le Roy was likewise a strongly committed Catholic (although, unlike Duhem, he was a strong opponent of scholastic Aristotelianism). He also insisted that his hyper-conventionalist view of science did not derive from his religious faith. On the other hand, Le Roy's extension of his conventionalism to religious dogmas, which he presented as merely rules for guiding action, resulted in his views being included in Pius X's condemnation of modernism (in his encyclical "Pascendi gregis" of 1907).

making a scientific fact, the scientist "has exactly followed the same process which common sense employed in creating the brute fact" and has thereby produced an improved version of practical facts.[13] The resulting theoretical facts are, therefore, better descriptions of physical reality and, as such, have the ontological significance that Duhem accords to practical facts: they are data from which we must construct a metaphysical cosmology. It follows that this construction is carried out not by transempirical metaphysics but by theoretical science itself.

Meyerson's realistic view of theory is intimately connected to his famous thesis that to explain is to identify. According to this thesis, to explain a phenomenon scientifically is to identify it with a theoretical description that replaces our common-sense description. So, for example, the kinetic theory explains heat by identifying it as the motion of molecules, and electromagnetic theory explains the current in a circuit by identifying it with the flow of electrons. Meyerson supports this thesis through detailed historical studies of chemical and physical theories, studies that challenge Duhem's positivist histories.[14] He also uses the thesis to argue that a surd of irrationality underlies the scientific enterprise. Since to explain is to identify, a total explanation of the universe would require reducing it to a sheer undifferentiated unity. This, however, contradicts the plurality of objects that always confronts science and that, accordingly, poses an impassable limit on rational explanation.

Despite important disagreements among themselves, Poincaré, Duhem, and Meyerson represent a single new and distinctive approach to philosophical reflection on science. They are positivist in their effort to avoid metaphysical assumptions and empiricist in their insistence on the central role of observation and experiment. But their positivism does not extend to the dogmatic elimination of all metaphysical inquiry and their empiricism is a sophisticated sort that allows for the mind's active role in the constitution of both theory and experience. They also all emphasize the need for philosophers of science to operate out of an intimate acquaintance with the actual practice of science, both historical and contemporary. Not only the spirit of their approach but also many of their specific

[13] Émile Meyerson, *Identity and Reality*, 378.

[14] These studies are found both in *Identité et réalité* and, especially, in *De l'explication dans les sciences*. Later, in *La déduction relativiste*, he supports his views by an analysis of Einstein's theory of relativity.

formulations of problems and solutions are directly relevant to contemporary discussions, and their thought has maintained a significance outside of France unusual in French thinkers of their period.

At the same time, its positivism and empiricism separated the new philosophy of science from the spiritualism and idealism that continued to define mainline French philosophy in the Third Republic. The separation was deepened by the specialized training in science and its history that the new discipline required.[15] Bergson and Brunschvicg combined traditional interests with specialized work on scientific issues. Eventually, however, French philosophy of science became a nearly autonomous domain, respected and influential in the French university, but, especially after the rise of existential philosophy, mostly left to a small circle of specialists. Gaston Bachelard and Georges Canguilhem were, as we shall see, important figures in the general education of successive generations of students at the Sorbonne. But, apart from the exceptional case of Michel Foucault, they had relatively little influence on existentialist and post-structuralist philosophers dominant from the 1940s on. Outside of France, after the rise of logical positivism, philosophy of science took a formal, non-historical turn for which the French tradition was uncongenial. The French in turn were disdainful of what they saw as the naive epistemological foundationalism of logical positivism and its insensitivity to the actual practice of science. Later, when the historicist reaction against positivism took hold, English-speaking philosophers of science rediscovered major themes articulated long before by the French tradition, such as the theory-ladenness of observation and the irreducibility of scientific rationality to logic. But by then the two approaches were too far apart for fruitful interaction. The French could hardly share the excitement of what they rightly saw as old news;[16] and the British and Americans had scant interest in discussions which, if they read them at all, lacked

[15] Also relevant here is the fact that Poincaré, Duhem, and Meyerson were all, in different ways, outsiders to the close community of the philosophers of the Third Republic. All were trained in science rather than philosophy. Duhem, at least partly because of his conservative religious and political views, never received a call to Paris and remained throughout his career at the provincial university of Bordeaux. Meyerson was born in Lublin, Russia (now Poland), educated in Germany, and never held a teaching position in France.

[16] When George Steiner chided Foucault for (in *Les mots et les choses*) not mentioning Kuhn, Foucault responded that he had instead cited a thinker who had anticipated Kuhn, Georges Canguilhem ("Foucault responds 2", 60).

the analytic clarity and rigor to which they were accustomed and that ignored logical positivist philosophy of science as hardly worth refuting.[17]

BRUNSCHVICG

Léon Brunschvicg (1869–1944) was the leading representative of university idealism. As a professor of philosophy at the Sorbonne from 1900 to 1939, he exercised immense influence, and every aspiring French philosopher, from Marcel to Sartre and Merleau-Ponty, had to come to terms with his thought. Brunschvicg was famous as an editor of Pascal and a historian of philosophy (particularly that of Spinoza), but the heart of his work was the "critical idealism" he developed and defended throughout his career. The root and foundation of critical idealism is his thesis, *La modalité du jugement*, completed when Brunschvicg was only twenty-eight years old. What might seem to be merely a specialized monograph on modality is in fact an outline of an entire philosophy.

Brunschvicg's idealism is based, first of all, on a thorough rejection of the thing-in-itself. He finds no sense in the idea that we could have any knowledge of something as it exists entirely apart from its relation to our knowledge. "Knowledge is not an accident that is added on from outside a being" but rather "constitutes a world that is the world for us", for "a thing outside of knowledge would be by definition inaccessible, indeterminable, that is to say equivalent for us to nothing" (*La modalité du jugement* [*MJ*], 2). Further, Brunschvicg does not reject external, material realities in favor of an internal, spiritual reality. A substantial subject of experience would be just as much a thing-in-itself as the external substances posited by realism. A consistent idealism must see *all* beings as the objects of a thought that is itself a function or act of thinking, not an independently existing thing.

Whereas natural sciences are concerned with the objects of thought, philosophy is concerned with thought itself, the intellectual activity through which objects are presented to (constituted for) us. It

[17] Anglophones may also have been put off by the fact that, during the 1960s and 1970s, a number of French students of philosophy of science (or, as the French say, *l'épistémologie*) were followers of Louis Althusser's structuralist Marxism, which appropriated some key concepts of Gaston Bachelard, by then the most influential French philosopher of science. See below, chapter 8.

may seem that characterizing the activity of thought as "intellectual" begs important questions about its nature, but Brunschvicg is prepared to argue that thinking is identical with judging, the quintessential intellectual activity. Since philosophy itself is an example of intellectual activity, it follows that it is an essentially reflective enterprise: "Intellectual activity becoming aware of itself [*prenant conscience d'elle-même*] . . . – that's what philosophy is" (*MJ*, 4).

Brunschvicg tries to establish his central claim that thinking is judging by arguing that the other two traditional elements of thought, concepts and reasoning, are reducible to judgment. Philosophers have perennially argued over whether concepts should be defined by their extension (nominalism) or by their comprehension (realism). But according to Brunschvicg the premise of this venerable debate is wrong. There is no need or possibility of reducing a concept to either the individuals that fall under it or the properties that describe those individuals. Rather, a concept is precisely the *linking* of a certain set of properties to a certain set of individuals. "To conceive *man* is to unite together certain characteristics and certain individuals [and] to assert these characteristics of these individuals." But such an assertion is precisely what is meant by a judgment, so "we can say without paradox that to conceive is to judge" (*MJ*, 8).

We are inclined to think that deductive reasoning is a matter of connecting two or more judgments so as to derive yet another judgment. Now a connection of two judgments cannot be itself a judgment, since a judgment unites two terms (a subject and a predicate), not two judgments. So it would seem that an instance of deductive reasoning must be something other than a judgment. Brunschvicg, however, maintains that deductive reasoning is not a matter of connecting two or more judgments but of making a single judgment. Consider, for example, a standard syllogism: All philosophers are just; Socrates is a philosopher; therefore, Socrates is just. On Brunschvicg's analysis, this syllogism expresses the single judgment, *Socrates is just*. The two premises of the syllogism merely explicate this judgment by noting, first, that the characteristic *being just* (the predicate of the judgment) is included in the characteristic *being a philosopher* and, second, that Socrates (the subject of the judgment) is an instance of the general subject, *a philosopher*. Because of this, the judgment, *Socrates is just*, can also be expressed as *This philosopher* (i.e., Socrates) *has the characteristic of being a philosopher* (which

includes being just). When we reason deductively, we begin with the first form of the judgment (expressed in the premises) and conclude with the second form. But the conclusion is not a new judgment, just a "new expression of a judgment that was already in my mind" (*MJ*, 19). In this way, reasoning is revealed as just a matter of making a judgment (Brunschvicg develops similar analyses for other syllogistic figures).

Having established that to think is to judge, Brunschvicg turns to the question of what a judgment is. It is, first of all, an affirmation, an assertion that something is the case. The deep philosophical issues arise when we ask what "is" means in a given judgment. Since Aristotle, philosophers have agreed that judgments vary depending on whether what they affirm is necessary existence, actual existence, or possible existence. Brunschvicg accepts this distinction of the three modalities of judgment (hence three meanings of "is") but maintains that the significance of these modalities cannot be discovered by a merely formal (logical) analysis of the language in which they are expressed. Understanding the forms of judgment requires us to answer fundamental metaphysical and epistemological questions of being and truth.

Brunschvicg begins by noting that, in some cases, judgment seems to be a matter of our awareness of the internal connection between two ideas. When, for example, I judge that *the sum of the interior angles of a triangle is two right angles*, the "is" of my judgment expresses the necessary intellectual connection between the two terms connected. Such a judgment expresses the unity that the mind finds between two notions that are only verbally separated and are in themselves mutually implicated. Here Brunschvicg will say that judgment takes the "form of interiority", since its "is" expresses the internal unity of ideas. In other cases, however, my judgment seems to have nothing to do with the internal connections of ideas but rather expresses the brute fact that something exists in reality, that, for example, *this thing exists here and now*. In such a case, "is" does not express a unity required by the mind's understanding but a "shock of reality" that the mind must simply accept without understanding: "it is the impossibility of the intellect's penetrating to the interior of what it represents in order to analyze and understand it that obliges [the intellect] to stop short [*s'arrêter*], to posit being, that is, to recognize the fact that *that is*" (*MJ*, 88). Here judgment takes the "form of exteriority", its "is" expressing not the

internal necessity of intelligible thought but the undeniable givenness of an external reality.

Brunschvicg's acceptance of this givenness does not mean that he is abandoning idealism. Like Fichte (from whom he takes the expression "shock of reality"), he is prepared to argue that the very exteriority of external objects is just the way they are given to (constituted by) the mind. But there nonetheless remains an unbridgeable epistemological gap between what can be known simply through the mind's internal reflection and what requires the jolt of external experience.

Brunschvicg emphasizes that pure interiority and pure exteriority are merely ideal forms, limiting cases of judgment, which in reality is always a mixture of the two. This means that our effort to discover the truth of reality cannot be a matter, as some idealists have thought, of the mind's reflectively intuiting or deducing its own intellectual content. Such an enterprise will yield only fragile abstractions that cannot sustain the shock of reality. At the same time, Brunschvicg of course rejects the empiricist error of believing that the truth lies simply in what the mind passively receives from outside. Truth and reality are rather expressed in "mixed judgments" through which what has been given so far in experience is interpreted through the best intellectual framework so far developed by the mind. Since both the most precise experience and the most accurate interpretations of it are achieved by science, it follows that the philosophical pursuit of truth and reality must take the form of historical reflection on science's development of increasingly adequate judgments.

It is this conclusion that justifies Parodi's characterization of Brunschvicg's thought as a union of positivism and idealism ("positivisme idéaliste").[18] The positivism consists in his claim that we know the truth by experiencing the historical progress of science, the idealism in his corresponding insistence that this history is the record of the mind's constitution of ever more successful frameworks for the interpretation of experience. The truth is derived from reflection on the life of the mind, but the mind itself is encountered as a positive

[18] Dominique Parodi, *Philosophie contemporaine en France*, 425, 430. Parodi notes the similar positions of Louis Weber (*Vers le positivisme absolu par l'idéalisme*), and of Alain (pseudonym of Émile Chartier). Alain (1868–1951) was an exceptionally charismatic teacher, who, at the Lycée Henri IV in Paris (1909–33), influenced a generation of students that included Simone Weil, Raymond Aron, and Jean-Paul Sartre.

reality in human history of science, not as an esoteric ahistorical object of philosophical insight.

Brunschvicg's early views on judgment, truth, and reality provide the guiding thread for the three massive historical studies that constitute the bulk of his life's work. The first was *Les étapes de la pensée mathématique* (1912), which follows the entire history of mathematics and of mathematically inspired philosophy from the ancient Greeks through twentieth-century logicism and intuitionism. Brunschvicg rejects the idea that mathematics is a pure study of merely ideal relations and instead views it as essentially tied to our efforts to understand the world. His history shows how novel mathematical ideas emerge from the mind's creative efforts to make sense of our experience of the world: "nature puts the mind to the test; the mind responds by constituting mathematical science."[19] At the same time, Brunschvicg follows the work of philosophers – particularly, Plato, Descartes, Leibniz, and Kant – inspired by the mathematical achievements of their times. He acknowledges the resulting advances in philosophical understanding but denounces the philosophical systems that present those results as the final word on the nature of reality, arguing that the subsequent history of mathematics always creates new ideas that undermine the old systems. The only philosophical conclusion supported by the history of mathematics is Brunschvicg's own anti-systematic view of the mind responding to ever new and unpredictable "shocks" of nature with its own new and unpredictable interpretations.

A second volume, *L'expérience humaine et la causalité physique* (1922), develops the same general viewpoint, this time through a study of scientific and philosophical conceptions of causality. It concludes that history undermines the pretensions of both the philosophies of nature of absolute idealists such as Hegel and the philosophies of science of other modern philosophers such as Descartes and Kant, but supports the more modest claims of Brunschvicg's philosophy of thought (*philosophie de pensée*). As he uses the term, a philosophy of nature offers a view of the natural world, derived entirely from philosophical insight and reasoning, that claims to be independent of and superior to the empirical constructions of natural scientists. Whereas both ancient and early modern philosophers saw an intimate connection, if not identity, between philosophical and

[19] *Les étapes de la pensée mathématique*, 569.

scientific efforts to understand the world, the philosophy of nature, first fully developed by German idealists of the early nineteenth century, claimed to be able to "achieve, on its own, through original procedures, the system of things that scientists have not been able to achieve" with their mathematical and experimental methods (*L'expérience humaine et la causalité physique* [*EH*], 544). Brunschvicg rejects this project as "a chimera", refuted by its obvious inconsistency with scientific truths and explained by the human desire for "dogmatic speculation that seeks simple and definitive systems" (*EH*, 545).

By contrast a philosophy of science quite properly does not seek "truths beyond the plane of scientific verification; it limits the horizon of human knowledge [*connaissance*] to the results furnished by science [*savoir scientifique*]" (*EH*, 546). Such philosophies – especially in the form of Kant's critique or Comte's positivism – effectively oppose systems of dogmatic metaphysics. But they go wrong in thinking that, from the de facto science of their time, they can extract final truths that must define the framework of all subsequent science. Brunschvicg notes how often, during the last century, developments in pure mathematics – and even more in mechanics and physics – "have blithely ignored [*jouées comme à plaisir*] the alleged limits imposed on them in the name of [Kantian] criticism or of positivism" (*EH*, 546). (In this regard, Brunschvicg finds Einstein's general theory of relativity particularly revolutionary.)

Brunschvicg's own "philosophy of thought" balances the claim that only science can provide the definitive account of reality with a realization that the content of its account cannot be extracted from the science of any given time. What is required instead is historical reflection on the full sweep of science as it has developed over the last 2500 years: "science considered apart from its history [*devenir*] is an abstraction". The philosophy of thought hopes to show that this history is not a mere "aggregate of disparate and diverging opinions". Its project is to employ a "total knowledge of the curve followed [by science] up to now . . . to project the light of a new reflection onto the previous phases of thought and . . . in particular to clarify the relative position of the present". The result will be "a philosophy of human history" that will "define the direction [*sens*] of the drama in which humanity has found itself engaged since it first became aware of its contact with things" (*EH*, 552).

Brunschvicg speaks of his philosophy of thought as being "pro-

gressive" and in tune with the "rhythm of progress" (*EH*, 552). Given his strong claims about the unpredictability of the future direction of science, it is hard to see how even the most well-informed history could give us a real sense of where science is going in the long run. But Brunschvicg thinks there is something substantial that can be said about the moral and religious progress of humankind, a progress that he sees as intimately connected with the development of science and which he treats in his third magnum opus, *Le progrès de la conscience dans la philosophie occidentale* (1927).

Brunschvicg's view of progress is rooted in the account of practical judgments that he developed in *La modalité du jugement*. There he argued that practical judgments should be understood as parallel to theoretical judgments. Corresponding to the distinction between the form of exteriority and the form of interiority (that is, between judgments about experientially given facts and judgments about the internal relation of ideas), there is a distinction between judgments concerning happiness, which depend on the external world, and judgments of morality, which, following Kant, Brunschvicg sees as deriving from "internal conditions tied to a rational principle" (*MJ*, 217). Likewise, just as theoretical judgments are in fact always a mixture of exteriority and interiority, so our practical judgments always combine considerations of happiness and of morality. Just as scientists must apply a priori intellectual frameworks to the given facts of experience, so we must apply the a priori principles of morality to the given passions and desires of our concrete existence. "In the two cases, the task of judgment is the same: it faces us with a given nature, either as external world or as individual character." Just as in the theoretical realm scientists "destroy bit by bit the illusions born from sensible representations", so in the practical realm moralists "denounce the contradictions of human nature and the vanity of its spontaneous will". More generally, moral principles and the principles of mathematics are both characterized by a "rational purity and universality" that is gradually extended to various levels of physical and social reality (*MJ*, 221).

Brunschvicg insists that these parallels are not simply an artifact of his mode of exposition. They express the "higher truth" of the "unity of the human mind [*l'esprit*]". Although our analyses distinguish "knowledge and action, theory [*speculation*] and practice, life does not know this distinction" since "theoretical matters [*démarches spéculatives*] are intimately tied to practical matters, which continue

and presuppose them" (*MJ*, 221). Since Brunschvicg identifies the mind with the activity of judgment, the only difference between theory and practice lies in the object of the judgment, not in the nature of the judgment itself, which is in either case a creative structuring of pregiven materials. Even more importantly, the attainment of theoretical truth and of moral goodness both require the same central virtue: a rigorous pursuit of the universal by renouncing all personal perspectives and interests.

Here it is important to take account of Brunschvicg's emphasis on freedom. In its own right, the mind is entirely free to construct whatever laws and norms it chooses. In both science and ethics, "there is nothing outside of freedom"; "consciousness is the creator of moral values, as it is of scientific values and of aesthetic values".[20] Its "existence is to develop in conformity to the law that it imposes on itself".[21] In both science and morality, the mind is essentially creative: "In all domains, the heroes of the spiritual life are those who, without referring to outdated models . . ., have cast ahead of themselves lines of intelligence and truth that are destined to create a moral universe in the same way that they have created the material universe of gravitation or of electricity."[22] Thus far, Brunschvicg sounds like a proto-existentialist, and there surely are some anticipations of Sartre in his formulations. But he goes on to insist that the development of both science and ethics requires that the mind's freedom be directed toward a universal, objective viewpoint; he never makes the key existentialist move of giving individual consciousness ontological and ethical priority over this viewpoint.

Brunschvicg sees the epistemic and the moral progress of humanity as intertwined. Just as we have moved from the perspectival limitations of sense perception toward universal laws valid for all observers, so we have moved from moral ideals limited to our own social groups to an ideal of love for all humans. The history of humanity is the history of its progress to unity, both cognitive and ethical.[23]

As Brunschvicg sees it, this progress has involved sloughing off many of the elements of traditional religion. The development of

[20] *Le progrès de la conscience dans la philosophie occidentale*, 715, 705.
[21] *L'idéalisme contemporain*, 32.
[22] "Vie intérieure et vie spirituelle", 146.
[23] Hence Brunschvicg's title, *Le progrès de la conscience*, intends both meanings of the French *conscience*: consciousness and conscience.

critical idealism shows that the idea of God as a transcendent being, entirely independent of our minds, is incoherent. Further, the apparatus of institutional religion – its rites, creeds, and codes – have been impediments to the free development of thought. To this extent, there should be no place for "religious consciousness" in the future history of humanity. Brunschvicg does allow, however, for a reformulation of religious language in defensible terms. This requires an understanding of God not as a superhuman personage, causally involved with the world, but as a value, indeed the ultimate value of truth and love, the unity toward which human history is converging.

CHAPTER 3

Bergson

> For the truths which the intellect apprehends directly in the world of full and unimpeded light have something less profound, less necessary than those which life communicates to us against our will in an impression which is material because it enters us through the senses but yet has a spiritual meaning which it is possible for us to extract.
>
> (Marcel Proust, *In Search of Lost Time*, VI, 273)

The strong focus of the early Third Republic's philosophers on science is hardly unusual. The identity of philosophy has always been intimately associated with that of science. We can think of philosophy's premodern period as the time, before the scientific revolution, when it was identical with science, when philosophy was simply the enterprise of understanding the world in all its aspects. The scientific revolution destroyed this identity by showing that there was at least one domain – knowledge of the material world – where philosophy's methods of rational insight and logical argument were not adequate. Here, it was gradually discovered (and, of course, anticipations of the discovery can be traced back to the very beginnings of Greek inquiry) that the empirical method of testing conjectures by observing whether their consequences were true was far superior. No doubt philosophy, considered simply as our search for truth, could be regarded as employing this method. Then what the modern world has come to know as science would still be part of philosophy. But this is mere contingency of words. The determining historical fact is that philosophy came to be identified with employments of reason other than the empirical, prediction-driven procedures of science. The future of philosophy, in the wake of these procedures, depended on the value of these other employments of reason.

It is not, therefore, surprising that roughly from the time of

Descartes, the critique of science became a major philosophical concern. Explicitly or implicitly, every modern philosophical enterprise has had to guarantee a place for itself by showing that there is something for it to know that escapes the grasp of empirical science.[1]

There have been many vehicles for staking out the domain of philosophy, from Descartes' dualism through the positivists' analytic-synthetic distinction. But one of the most persistently attractive has been the claim that philosophy can and should root itself in an experience with an *immediacy* or *concreteness* that escapes the abstractions required for successful empirical science. Here the general thought is that the precision required for rigorously testing hypotheses requires us to ignore certain aspects of our experience that are not open to scientific (e.g., quantitative) formulation. The claim (or hope), however, is that philosophy is capable of giving us an epistemically adequate access to the experience that science must ignore. The appeal to a distinctive realm of philosophical experience is prominent in the French spiritualist tradition and especially in the work of its greatest representative, Henri Bergson (1859–1941).[2]

Since Bergson's mother was English, he spent considerable time visiting her relatives and grew up with a native fluency in English. But his education was entirely in the French system. He entered the École Normale in 1878 (where he was a classmate of Jean Jaurès and Émile Durkheim), passed the *agrégation* in 1881, and received his doctorate in 1889. For many years Bergson taught at lycées, particularly two elite Parisian schools, the Lycée Louis-le-Grand and the Lycée Henri IV. He never held a university professorship but did teach at the École Normale before being elected to a chair at the Collège de France in 1900, where his lectures became the rage of fashionable Paris. He had immense influence not only on philosophers but also on French writers such as Proust, Valéry, and Péguy, as well as many British and American modernists; psychologists such as Pierre Janet and Jean Piaget; political theorists such as Georges Sorel; and avant-garde artistic movements such as Cubism, Fauvism, and Futurism. Unlike other French philosophers of the time,

[1] Some philosophers, such as Quine, hold a methodological naturalism that assimilates their enterprise to empirical science. However, for them, the fact that we still continue to talk of "philosophy" – if we do – reflects only the contingent genealogy of certain discussions or the sociological classification of certain groups of inquirers. Philosophy has no irreducible epistemic status.

[2] On Bergson's relation to spiritualism, see Dominique Janicaud, *Une généalogie du spiritualisme français*.

Bergson gained an international reputation; he received the Nobel Prize for literature in 1928. He was also active in diplomatic affairs, working for the entry of the United States into World War I and, after the war, serving on the League of Nations' Commission for Intellectual Cooperation. Bergson's health (particularly, crippling arthritis) forced him to retire from his chair in 1921 and eventually from most other public activities. Shortly before his death he refused a personal exemption offered by the Vichy regime to its anti-Semitic laws and insisted on registering as a Jew.

BERGSON ON THE HISTORY OF PHILOSOPHY

Toward the end of his most influential book, *L'évolution créatrice* (1907), Bergson offers a critical sketch of the history of philosophy in its relation to science that provides an excellent introduction to his philosophical project. Bergson sees science as essentially tied to what he calls the "cinematographical method" (*L'évolution créatrice* [*EC*], 773/357). By this he means that science views reality not as a continuous flux (the duration that it in fact is) but as a series of instantaneous "snapshots" extracted from this flux. In terms of a simple but fundamental example, science derives from a mind-set that makes Zeno's paradoxes both inevitable and unsolvable. Its end is the control of nature and thereby more effective action in the world. Now action, Bergson maintains, is always directed from a starting-point to an end-point and has no essential concern with whatever comes between the two. Therefore, the focus of science on action leads directly to its cinematographic view of reality.

It may be readily accepted that such a construal makes sense for ancient science, which divided the world into a discontinuous series of qualitatively distinct essences or natures and for which, as Bergson puts it, "physics is but logic spoiled" (*EC*, 765/347). But what about modern science, which rejects the qualitative approach and conceptualizes the world as a continuous manifold, open to the technique of the differential calculus? Bergson recognizes the distinctive character of modern science but does not see it as abandoning the division of the natural flux into isolatable moments. Modern science abandons not the ancient division of nature into moments but the ancient assumption that certain of these moments are privileged over others, in favor of the democratic view that science must be able to describe nature from the standpoint of any

one of its moments. Thus, the ancients saw the motion of a falling body as intelligible in terms of the privileged moment of its *telos*, its return to the earth to which it was naturally inclined. Galileo, by contrast, developed a kinematics for which "there was no essential moment, no privileged instant" and for which "to study the falling body is to consider it at it matters not what moment in its course" (*EC*, 775/360).

Accordingly, ancient and modern physics do not differ over the assumption that the flux of nature is divisible into discrete elements. They differ only on whether there is an intrinsically privileged division or an equivalence of all possible divisions. Bergson compares the difference to that between an ancient sculptural aesthetic for which the horses on the Parthenon frieze are caught at a moment that distills the essence of their gallop and a modern photographic aesthetic that sees all instantaneous snapshots of the gallop as equally valid representations (*EC*, 776/361). From this difference follow the modern emphasis on quantitative rather than qualitative descriptions and the modern concern with laws rather than concepts. But the essential scientific view of nature as a succession of fixed moments, as opposed to our lived experience of continuous time, remains in place.

It may be objected that modern science has given time an essential role, making it the independent variable in all its equations, whereas ancient science took a fundamentally static view of nature. Aristotle thought he had understood planetary motion adequately when he conceptualized it as circular (and even Ptolemy did not pretend to provide a physical explanation of celestial motions). But Kepler was not content with his discovery that planetary orbits were elliptical. He required laws that described how the planets traveled through these orbits over time. Bergson admits this modern enthronement of the temporal but maintains that the time in question is not the continuous flux of duration but a spatialized, immobile surrogate for it:

> In contrast with ancient science, which stopped at certain so-called essential moments, [modern science] is occupied indifferently with any moment whatever. But it always considers moments, always virtual stopping-places, always, in short, immobilities. Which amounts to saying that real time, regarded as flux, or, in other words, the very mobility of being, escapes the hold of scientific knowledge. (*EC*, 779–80/366)

It appears, then, that even modern scientific accounts fail to catch the essential movement of lived time. We might have expected,

accordingly, that modern philosophy, which was deeply concerned with finding itself a distinctive place in a cognitive realm more and more dominated by science, would have grounded itself precisely on lived duration. We might have expected a philosophy that rejected the "cinematographical method" and focused on the "flux itself of duration" of which "science neither would nor could lay hold" (*EC*, 784/372). Certainly, "this conception of metaphysics is that which modern science suggests" (*EC*, 785/373).

However, although Bergson finds some hints of such a construal of philosophy, he maintains that, on the whole, this was not the direction taken by Descartes and his successors. One reason was the abiding influence of the ancient view of reality, which made "time a degradation, and change the diminution of a form given from all eternity" (*EC*, 786/374). This view had led to metaphysical systems, from the Eleatic to the Aristotelian, that, despite their differences, privileged eternal, spiritual structures and regarded the world of matter and change as inessential and ultimately unreal. Even Aristotle, who so resisted the Platonic separation of form from matter, ended by in effect combining all the forms into one, which he identified with the self-thinking "Thought of Thought" and established as the ultimate unmoved cause of all motion. Modern metaphysicians were strongly inclined to "repeat with the new science what had been tried on the old"; that is, to view the new world of mechanized matter in the same way that the ancient metaphysicians had viewed their world of eternal forms: as a complete and unified system encompassing all truth and all reality. Admittedly, given its essential role as independent variable, time could not be simply reduced to an unreal status. But, since the modern view treated time as nothing more than a fourth spatial dimension,[3] it could readily be viewed as having no creative efficacy, as merely the vehicle for the automatic unrolling of a nomologically determined sequence.

According to Bergson, the direction modern philosophy took is the natural direction of the human mind, given its evolutionary orientation toward practical action. A metaphysics of duration is a precious theoretical truth, but not one for which we are adapted. "The science of matter proceeds like ordinary knowledge",

[3] The spatialization of time becomes explicit only in Minkowski's formulation of special relativity, but Bergson sees it as implicit in modern science since at least Galileo.

perfecting and extending it but not altering its fundamentally cinematographic bias (*EC*, 779/365).

Descartes himself, according to Bergson, shows some inclination to the new metaphysical possibility in his separation of the mind as free agent (and God as continuous creator) from the universal mechanism of the external world. His dualism may well be incoherent, but it at least represents a bow to the reality of duration. By contrast, Spinoza and Leibniz, insisting on total systematic unity, return fully to the spirit of ancient metaphysics and refuse the new path suggested by the limitations of modern science. They transform the determinism that is a plausible methodological or heuristic rule of the new science into "a fundamental law of things" (*EC*, 788/378). The ancient system of *concepts* is merely replaced with a modern system of *laws*. Bergson sums up the essential similarity of ancient and modern metaphysics as follows:

> The resemblances of this new metaphysics to that of the ancients arise from the fact that both suppose ready-made – the former above the sensible, the latter within the sensible – a science one and complete, with which any reality that the sensible may contain is believed to coincide. *For both, reality as well as truth are integrally given in eternity.* Both are opposed to the idea of a reality that creates itself gradually, that is, at bottom, to an absolute duration. (*EC*, 794/384–5)

In Kant, however, Bergson finds an important tendency (not, admittedly, ever properly developed) to a new metaphysics. He agrees that, from one point of view, Kant's philosophy "is only a continuation of the metaphysics of the moderns and a transposition of the ancient metaphysics". Certainly, "the philosophy of Kant is . . . imbued with the belief in a science single and complete, embracing the whole of the real" (*EC*, 795–6/387). Bergson does not, accordingly, read Kant as a critic of metaphysics as such. But he does see Kant as developing an extremely important criticism of the modern metaphysics of Spinoza and Leibniz. The germ of this criticism is a distinctive feature, noted above, of modern science as opposed to ancient: the focus on laws rather than concepts. Laws, Kant argues, are relations between two terms, and "a relation is nothing outside of the intellect that relates" (*EC*, 796/387). Since, then, as modern science tells us, the phenomenal universe is a system of laws, it follows that the "phenomena have passed through the filter of an intellect". So far he is in agreement with the modern rationalist metaphysicians, who, however, go on to identify this

Recherches sur l'imaginaire philosophique, Paris: Payot, 1980 (*The Philosophical Imaginary*, translated by Colin Gordon, Stanford, CA: Stanford University Press, 1989).

Le sexe du savoir, Paris: Aubier, 1998.

Lefebvre, H. and Gutterman, N. (eds.), *Morceaux choisis d'Hegel*, Paris, 1936.

Leo XIII, *Aeterni Patris*, translated in *The Great Encyclical Letters of Pope Leo XIII*, Rockford, IL: TAN Books, 1995.

Le Roy, Édouard, "Science et philosophie", *Revue de métaphysique et de morale* 7 (1899), 708–31.

"La science positive et la liberté", in *Bibliothèque du Congrès International de Philosophie de 1900*, vol. 1, Paris: Colin, 1900.

"Un positivisme nouveau", *Revue de métaphysique et de morale* 9 (1901).

Lévinas, Emmanuel, *Autrement qu'être*, The Hague: Nijhoff, 1974 (*Otherwise than Being*, translated by Alphonso Lingis, The Hague: Nijhoff, 1981).

De Dieu qui vient à l'idée, Paris: Vrin, 1982 (*Of God Who Comes to Mind*, translated by Bettina Bergo, Stanford, CA: Stanford University Press, 1998).

Difficile liberté, Paris: Michel, 1963 (*Difficult Freedom: Essays on Judaism*, translated by Séan Hand, Baltimore: The Johns Hopkins University Press, 1991).

Éthique et infini, dialogues with Philippe Nemo, Paris: Fayard, 1982 (*Ethics and Infinity*, translated by Richard Cohen, Pittsburgh, PA: Duquesne University Press, 1985).

Théorie de l'intuition dans la phénoménologie de Husserl, Paris: Alcan, 1930 (*The Theory of Intuition in Husserl's Phenomenology*, translated by André Orianne, Evanston, IL: Northwestern University Press, 1973).

Totalité et infini, The Hague, Nijhoff, 1961 (*Totality and Infinity*, translated by Alphonso Lingis, Pittsburgh, PA: Duquesne University Press, 1969).

Lévi-Strauss, Claude, *La pensée sauvage*, Paris: Plon, 1962 (*The Savage Mind*, Chicago: University of Chicago Press, 1966).

Lévy, Bernard-Henri, *La barbarisme à visage humain*, Paris: Grasset, 1977 (*Barbarism with a Human Face*, translated by George Holoch, New York: Harper and Row, 1979).

Le siècle de Sartre, Paris: Grasset, 2000.

Lilla, Mark (ed.), *New French Political Philosophy*, Princeton, NJ: Princeton University Press, 1994.

Logue, William, *Charles Renouvier: Philosopher of Liberty*, Baton Rouge: Louisiana State University Press, 1993.

Lyotard, Jean-François, *Chambre sourde*, Paris: Galilée, 1998.

La condition postmoderne, Paris: Minuit, 1979 (*The Postmodern Condition*, translated by G. Bennington and B. Massumi, Minneapolis: University of Minnesota Press, 1984).

La confession d'Augustin, Paris: Galilée, 1998.

Le différend, Paris: Minuit, 1983 (*The Differend*, translated by Georges van den Abbeele, Minneapolis: University of Minnesota Press, 1988).

Discours, figure, Paris: Klincksieck, 1971.

Économie libidinale, Paris: Minuit, 1974 (*Libidinal Economy*, translated by Iain Hamilton Grant, Bloomington, IN: Indiana University Press, 1993).

La phénoménologie, Paris: Presses Universitaires de France, 1954 (*Phenomenology*, translated by Brian Beakley, Albany: State University of New York Press, 1991).

Marcel, Gabriel, *De refus à l'invocation*, Paris: Gallimard, 1940.

Être et avoir, Paris: Aubier, 1935 (*Being and Having*, translated by Katherine Farrer, New York: Harper and Row, 1965).

Homo Viator, Paris: Aubier, 1944 (*Homo Viator*, translated by Emma Crawford, Chicago: Regnery, 1951).

Journal métaphysique, Paris: Gallimard, 1927 (*Metaphysical Journal*, translated by Bernard Wall, Chicago: Regnery, 1952).

Mystère de l'être, Paris: Aubier, 1951 (*The Mystery of Being*, translated by Rene Hague, Chicago: Regnery, 1951).

Marion, Jean-Luc, *Dieu sans l'être*, Paris: Fayard, 1982 (*God Without Being*, translated by Thomas Carlson, Chicago: University of Chicago Press, 1991).

Réduction et donation, Paris: Presses Universitaires de France, 1989 (*Reduction and Givenness*, translated by Thomas Carlson, Evanston, IL: Northwestern University Press, 1998).

Sur l'ontologie grise de Descartes, Paris: Presses Universitaires de France, 1981.

Sur la théologie blanche de Descartes, Paris: Presses Universitaires de France, 1981.

Maritain, Jacques, *Court traité de l'existence et de l'existant*, Paris: Hartmann, 1944 (*Existence and the Existent*, translated by L. Galantiere and G. Phelan, New York: Pantheon, 1948).

Distinguer pour unir, ou, les degrés du savoir, Paris: Brouwer, 1932 (*Distinguish to Unite, or, The Degrees of Knowledge*, translated under the supervision of Gerald Phelan, Notre Dame, IN: University of Notre Dame Press, 1995).

Du régime temporel de la liberté, Paris: Brouwer, 1933 (*Freedom in the Modern World*, translated by Richard O'Sullivan, New York: Gordian, 1971).

L'homme et l'état, translated from the English by R. Davril and F. Davril, Paris: Presses Universitaires de France, 1953 (*Man and the State*, Chicago: University of Chicago Press, 1951).

La philosophie Bergsonienne, Paris: Rivière, 1930 (*Bergsonian Philosophy and Thomism*, translated by Mabelle Andison, New York: Philosophical Library, 1955).

Primauté du spirituel, Paris: Plon, 1927 (*The Things that are not Caesar's*, translated by J. F. Scanlan, London: Sheed and Ward, 1932).

Ransoming the Time, translated by Harry Binnse, New York: Scribner's, 1941.

Sept leçons sur l'être, Paris: Tequi, 1934 (*Preface to Metaphysics: Seven Lessons on Being*, New York: Sheed and Ward, 1948).

Martin, Jean-Clet, *Variations: la philosophie de Gilles Deleuze*, Paris: Payot, 1993.

Mauss, Marcel, *Essai sur le don*, Paris: Alcan, 1925 (*The Gift*, translated by W. D. Halls, New York: Norton, 1990).

McBride, William, "Sartre: les premiers comptes-rendus de *L'être et le néant*", in Ingrid Galster (ed.), *La naissance du phénomène Sartre, 1938–1945 (Actes du Colloque d' Eichstätt)*, Paris: Seuil, 2000.

McCool, Gerald, *The Neo-Thomists*, Milwaukee: Marquette University Press, 1994.

McNeill, John, *The Blondelian Synthesis*, Leiden: Brill, 1966.

Merleau-Ponty, Maurice, *Les aventures de la dialectique*, Paris: Gallimard, 1955 (*Adventures of the Dialectic*, translated by Joseph Bien, Evanston, IL: Northwestern University Press, 1973).

Humanisme et terreur, Paris: Gallimard, 1947 (*Humanism and Terror*, translated by John O'Neill, Boston: Beacon Press, 1969).

L'oeil et l'esprit, Paris: Gallimard, 1964 ("Eye and Mind", translated by Carleton Dallery, in Maurice Merleau-Ponty, *The Primacy of Perception*).

Phénoménologie de la perception, Paris: Gallimard, 1945 (*The Phenomenology of Perception*, translated by Colin Smith, London: Routledge, 1962).

The Primacy of Perception, edited by James Edie, Evanston: Northwestern University Press, 1964.

Sens et non-sens, Paris: Nagel, 1948 (*Sense and Non-Sense*, translated by Hubert and Patricia Dreyfus, Evanston, IL: Northwestern University Press, 1964).

Signes, Paris: Gallimard, 1960 (*Signs*, translated by Richard McCleary, Evanston, IL: Northwestern University Press, 1964).

La structure du comportement, Paris: Presses Universitaires de France, 1942 (*The Structure of Behavior*, translated by Alden Fisher, Boston: Beacon Press, 1963).

Texts and Dialogues, edited by H. Silverman and J. Barry, Jr., translated by Michael Smith, et al., Atlantic Highlands, NJ: Humanities Press, 1992.

Le visible et l'invisible, edited by Claude Lefort, Paris: Gallimard, 1964 (*The Visible and the Invisible*, translated by Alfonso Lingis, Evanston: Northwestern University Press, 1964).

Meyerson, Émile, *La déduction relativiste*, Paris: Payot, 1925 (*The Relativistic Deduction*, translated by David Sipfle and Mary-Alice Sipfle, Dordrecht: Reidel, 1985).

De l'explication dans les sciences, Paris: Payot, 1927 (*Explanation in the Sciences*, Dordrecht: Kluwer, 1991).

Identité et réalité, Paris: Alcan, 1908 (*Identity and Reality*, translated by Kate Loewenberg, New York: Macmillan, 1930).

Moi, Toril, *Simone de Beauvoir: The Making of an Intellectual Woman*, Oxford: Blackwell, 1994.

Montefiore, Alan (ed.), *Philosophy in France Today*, Cambridge: Cambridge University Press, 1983.

Moore, F. C. T., *Bergson: Thinking Backwards*, Cambridge: Cambridge University Press, 1996.

Nabert, Jean, *Eléments pour une éthique*, Paris: Presses Universitaires de France, 1943 (*Elements for an Ethic*, translated by William Petrek, Evanston, IL: Northwestern University Press, 1969).

Essai sur le mal, Paris: Presses Universitaires de France, 1955.

L'expérience intérieure de la liberté, Paris: Presses Universitaires de France, 1924 (reissued in an edition edited by Paul Ricoeur, Paris: Presses Universitaires de France, 1994).

Nancy, Jean-Luc, *Communauté désoeuvrée*, Paris: Bourgeois, 1990 (*The Inoperative Community*, translated by P. Connor, et al., Minneapolis, MN: University of Minnesota Press, 1991).

Expérience de la liberté, Paris: Galilée, 1988 (*The Experience of Freedom*, translated by Bridget McDonald, Stanford, CA: Stanford University Press, 1993).

Nizan, Paul, *Aden Arabie*, with a preface by Jean-Paul Sartre, Paris: Maspero, 1960 (*Aden Arabie*, translated by Joan Pinkham, New York: Monthly Review Press, 1968).

Antoine Bloyé, Paris: Grasset, 1971 (*Antoine Bloye*, translated by Edmund Stevens, New York: Monthly Review Press, 1973).

Les chiens de garde, Paris: Maspero, 1960 (*The Watchdogs*, translated by Paul Fittingoff, New York: Monthly Review Press, 1971).

Ott, Hugo, *Martin Heidegger: éléments pour une biographie*, Paris: Payot, 1990 (*Martin Heidegger: A Political Life*, translated from the original German by Allan Blunden, New York: Basic Books, 1993).

Parodi, Dominique, *La philosophie contemporaine en France*, Paris: Alcan, 1919.

En quête d'une philosophie, Paris: Alcan, 1935.

Peperzak, Adriaan, *To the Other*, West Lafayette, IN: Purdue University Press, 1993.

Poincaré, Henri, *The Foundations of Science*, translated by George Bruce Halstead, New York: The Science Press, 1913.

La science et l'hypothèse, Paris: Flammarion, 1900 (English translation in Henri Poincaré, *The Foundations of Science*).

La valeur de la science, Paris: Flammarion, 1914 (English translation in Henri Poincaré, *The Foundations of Science*).

Poster, Mark, *Existential Marxism in Postwar France*, Princeton: Princeton University Press, 1975.

Proust, Marcel, *À la recherche du temps perdu*, Paris: Gallimard, 1954 (*In Search*

of Lost Time, translated by C. K. Scott Moncrieff, Terence Kilmartin, and Andreas Mayor, revised by D. J. Enright, New York: Modern Library, 1993).

Regan, Charles, *Paul Ricoeur: His Life and Work*, Chicago: University of Chicago Press, 1996.

Renaut, Alain, *L'ère de l'individu*, Paris: Gallimard, 1989 (*The Era of the Individual*, translated by M. B. DeBevoise and F. Philip, Princeton, NJ: Princeton University Press, 1997).

Sartre, le dernier philosophe, Paris: Grasset, 1993.

Le système du droit, Paris: Presses Universitaires de France, 1986.

Renouvier, Charles, *Essais de critique générale*, Paris: Librairie Philosophique de Ladrange, 1854–64.

Rey, Abel, "La philosophie scientifique de M. Duhem", Revue de métaphysique et de morale 12 (1904), 699–744.

Ricoeur, Paul, *A l'école de la phénoménologie*, Paris: Vrin, 1986.

Le conflit des interprétations, Paris: Seuil, 1969 (*The Conflict of Interpretations*, edited by Don Ihde, Evanston, IL: Northwestern University Press, 1974).

De l'interprétation: essai sur Freud, Paris: Le Seuil, 1965 (*Freud and Philosophy: An Essay on Interpretation*, translated by D. Savage, New Haven, CT: Yale University Press, 1970).

Gabriel Marcel et Karl Jaspers: philosophie du mystère et philosophie du paradoxe, Paris: Temps Présent, 1948.

Hermeneutics and the Human Sciences, edited and translated by J. B. Thompson, Cambridge: Cambridge University Press, 1981.

Interpretation Theory, Fort Worth, TX: Texas Christian University Press, 1976.

La métaphore vive, Paris: Seuil, 1975 (*The Rule of Metaphor*, translated by R. Czerny with K. McLaughlin and J. Costello, Toronto: University of Toronto Press, 1977).

Philosophie de la volonté, 3 vols.: *L'homme faillible*, *La symbolique du mal*, and *Le volontaire et l'involontaire*, Paris: Aubier, 1960–3 (*Freedom and Nature: The Voluntary and the Involuntary*, translated by E. V. Kohák, Evanston, IL: Northwestern University Press, 1966; *Fallible Man*, translated by C. A. Kelbley, Chicago: Regnery, 1965; *The Symbolism of Evil*, translated by E. Buchanan, New York: Harper and Row, 1967).

Soi-même comme une autre, Paris: Seuil, 1990 (*Oneself as Another*, translated by Kathleen Blamey, Chicago: University of Chicago Press, 1992).

Temps et récit, 3 vols., Paris: Seuil, 1983–5 (*Time and Narrative*, 3 vols., translated by K. McLaughlin and D. Pellauer, Chicago: University of Chicago Press, 1984–8).

Ringer, Fritz, *Fields of Knowledge: French Academic Culture in Comparative Perspective, 1890–1920*, Cambridge: Cambridge University Press, 1992.

Roth, Michael, *Knowing and History: The Resurgence of French Hegelianism from the 1930's through the Post-War Period*, Ithaca, NY: Cornell University Press, 1988.

Rousseau, Jean-Jacques, *Confessions*, London: Dent, 1960.

Santayana, George, *Egotism and German Philosophy*, London: J. M. Dent, 1916 (reissued: New York: Scribner, 1940).

Sartre, Jean-Paul, *L'âge de raison*, Paris: Gallimard, 1945 (*The Age of Reason*, translated by Eric Sutton, Harmondsworth: Penguin, 1961).

Cahiers pour une morale, Paris: Gallimard, 1983 (*Notebook for an Ethics*, translated by David Pellauer, Chicago: University of Chicago Press, 1992).

Critique de la raison dialectique, vol. I, Paris: Gallimard, 1960 (*Critique of Dialectical Reason*, vol. I, translated by Alan Sheridan-Smith, London: New Left Books, 1976).

Critique de la raison dialectique, vol. II, Paris: Gallimard, 1985 (*Critique of Dialectical Reason*, vol. II, translated by Quinton Hoare, London: Verso, 1991).

L'espoir maintenant (interviews with Benny Lévy), Lagasse: Verdier, 1991 (*Hope Now*, translated by Adrian van den Hoven, Chicago: University of Chicago Press, 1996).

L'être et le néant, Paris: Gallimard, 1943 (*Being and Nothingness*, translated by Hazel Barnes, New York: Washington Square Press, 1956).

L'existentialisme est un humanisme, Paris: Nagel, 1947 ("Existentialism Is a Humanism", translated by P. Mairet, in Walter Kaufmann (ed.), *Existentialism from Dostoevsky to Sartre*).

Huis-clos, Paris: Gallimard, 1947 (*No Exit*, translated by Stuart Gilbert, New York: Knopf, 1948).

"Une idée fondamentale de la phénoménologie de Husserl: l'intentionalité", in *Nouvelle revue française* 52 (1939), 129–32; reprinted in *Situations I*, 31–5 ("Intentionality: A Fundamental Idea of Husserl's Phenomenology", translated by Joseph Fell, *Journal of the British Society for Phenomenology* 1 (1970), 4–5).

L'idiot de la famille, Paris: Gallimard, 1971 (*The Family Idiot*, translated by Carol Cosman, Chicago: University of Chicago Press, 1981).

L'imaginaire, Paris: Gallimard, 1940 (*The Psychology of Imagination*, translated by Bernard Frechtman, New York: Philosophical Library, 1948).

L'imagination, Paris: Alcan, 1936 (*Imagination*, translated by Forrest Williams, Ann Arbor, MI: University of Michigan Press, 1962).

"Jean-Paul Sartre répond", *L'Arc* 30 (1966), 87–96.

Mallarmé, Paris: Gallimard, 1986 (*Mallarmé, or, The Poet of Nothingness*, translated by Ernest Sturm, University Park, PA: Pennsylvania State University Press, 1988).

La mort dans l'âme, Paris: Gallimard, 1949 (*Troubled Sleep*, translated by Gerald Hopkins, New York: Knopf, 1951).

Les mots, Paris: Gallimard, 1964 (*The Words*, translated by Bernard Frechtman, New York: Braziller, 1964).

Les mouches, Paris: Bordas, 1974 (*The Flies*, translated by Stuart Gilbert, New York: Knopf, 1948).

La nausée, Paris: Gallimard, 1938 (*Nausea*, translated by Lloyd Alexander, New York: New Directions, 1964).

Qu'est-ce que la littérature?, Paris: Gallimard, 1948 (*What is Literature?*, translated by Bernard Frechtman, New York: Philosophical Library, 1949).

"Question de méthode", in *Critique de la raison dialectique* (*The Problem of Method*, translated by Hazel Barnes, London: Methuen, 1963; also published as *The Search for a Method*, New York: Knopf, 1963).

Saint Genet, Paris: Gallimard, 1952 (*Saint Genet*, translated by Bernard Frechtman, New York: Braziller, 1963).

Sartre par lui-même, transcript of a documentary film directed by Alexandre Astruc and Michel Contat, Paris: Gallimard, 1977 (*Sartre by Himself*, translated by Richard Seaver, New York: Urizen Books, 1980).

Situations (10 vols.), Paris: Gallimard, 1947–72 (volume IV: *Situations*, translated by Benita Eisler, New York: Braziller, 1965; volumes VIII and IX: *Between Existentialism and Marxism*, translated by John Mathews, New York: Morrow, 1974).

Le sursis, Paris: Gallimard, 1945 (*The Reprieve*, translated by Eric Sutton, New York: Knopf, 1947).

La transcendence de l'égo, Paris: Vrin, 1966 (*Transcendence of the Ego*, translated by F. Williams and R. Kirkpatrick, New York: Noonday, 1957).

Saussure, Ferdinand de, *Cours de linguistique général*, Paris: Payot, 1980 (*Course in General Linguistics*, translated by Wade Baskin, New York: Philosophical Library, 1959).

Scheler, Max, *Wesen und Formen der Sympathie*, Bonn: Cohen, 1923 (*The Nature of Sympathy*, New Haven: Yale University Press, 1954).

Schilpp, Paul (ed.), *The Philosophy of Jean-Paul Sartre* (Library of Living Philosophers 16), LaSalle, IL: Open Court, 1981.

Schyns, Mathieu, *La philosophie d'Émile Boutroux*, Paris: Fischbacher, 1924.

Serres, Michel, *Le contrat naturel*, Paris: Bourin, 1990 (*The Natural Contract*, translated by E. MacArthur and W. Paulson, Ann Arbor, MI: University of Michigan Press, 1995).

Hermès, 5 vols., Paris: Editions Minuit, 1968–80 (*Hermes*, edited by J. Harari and D. Bell, Baltimore: Johns Hopkins, 1982).

La légende des anges, Paris: Flammarion, 1993.

Le tiers-instruit, Paris: Bourin, 1991.

Serres, Michel and Bruno Latour, *Conversations on Science, Culture, and Time*, translated by Roxanne Lapidus, Ann Arbor, MI: University of Michigan Press, 1995.

Simons, Margaret, *Beauvoir and the Second Sex: Feminism, Race, and the Origins of Existentialism*, New York: Rowman & Littlefield, 1999.

Spiegelberg, Herbert, *The Phenomenological Movement*, 2nd edn., 2 vols., The Hague: Nijhoff, 1965.

Steward, Jon (ed.), *The Debate Between Sartre and Merleau-Ponty*, Evanston, IL: Northwestern University Press, 1998.

Teilhard de Chardin, Pierre, *L'apparition de l'homme*, Paris: Seuil, 1956 (*The Phenomenon of Man*, London: Collins, 1959).

Thibaudet, Albert, *La république des professeurs*, Paris: Grasset, 1927.

Vadée, Michel, *Gaston Bachelard*, Paris: Éditions Sociales, 1975.

Van Breda, H.L., "Merleau-Ponty and the Husserl Archives at Louvain", translated by Stephen Michelman, in Maurice Merleau-Ponty, *Texts and Dialogues*.

Virgoulay, René, *"L'action" de Maurice Blondel*, Paris: Beauchesne, 1992.

Vuillemin, Jules, *Nécessité ou contingence*, Paris: Minuit, 1984.

Wahl, Jean, *Études kierkegaardiennes*, Paris: Aubier, 1938.

Le malheur de la conscience de Hegel, 2nd edn., Paris: Presses Universitaires de France, 1951 (first published in 1929).

Vers le concret, Paris: Vrin, 1932.

Weber, Louis, *Vers le positivisme absolu par l'idéalisme*, Paris: Alcan, 1903.

Weil, Simone, *L'enracinement*, Paris: Gallimard, 1949 (*The Need for Roots*, translated by Arthur Wills, NY: Putnam, 1952).

Whitford, Margaret, *Luce Irigaray: Philosophy in the Feminine*, London: Routledge, 1991.

Wilcocks, Robert (ed.), *Critical Essays on Jean-Paul Sartre*, Boston: G. K. Hall, 1988.

Worms, Frédéric, *Introduction à* Matière et mémoire *de Bergson*, Paris: Presses Universitaires de France, 1997.

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tendencies that motivated much analytic philosophy were present in France, but they were channeled along paths outside of philosophy. (This, however, is not to deny that much French social science, from Durkheim through Lévi-Strauss to Bourdieu, has had major philosophical significance.)

The philosophical root of the French focus on freedom was its distinctive national tradition, spiritualism. Initially, spiritualism was a philosophy to complement an optimistic bourgeois Catholicism, for which human life was a matter of individuals freely working out their salvation in a comfortable socio-economic world itself embedded in a providentially benevolent cosmos. In the course of the century, both the religion and the optimism lost their central place in French thought, but there remained the focus on understanding individual freedom and on concrete experience as the locus of this understanding.

The ultimate explanation of this emphasis on individual freedom may well lie in France's religious and revolutionary heritage. But the specific instrument of transmission for this heritage was the philosophical educational system. Here the two salient features of this system were its centralism and its institutionalism. Almost every important French philosopher was trained in Paris, and of those, the great majority studied at the École Normale. Further, this education was dominated by the institutional demands of the lycée's *classe de philosophie*, implemented by the crucial *agrégation* examination. Philosophers were trained to be purveyors of a syllabus; and it was this syllabus, with its emphasis on French philosophy (and French interpretations of non-French classics) that transmitted the emphasis on individual freedom as the core of philosophizing.

The French centering of philosophical education around a historical syllabus contrasts with the Anglo-American and the German models contemporary with it. The analytic philosophy dominant in the English-speaking world produced solvers of philosophical problems, guided much less by their formation in a national tradition or in the more general history of philosophy than by their conceptual quickness and imagination. German philosophy favored history over problems, but initiated the young philosopher into a tradition as the disciple of one of its master-thinkers. Twentieth-century French philosophy produced its share of master-thinkers, but they typically remained at some distance from the university system, either, like Bergson, Merleau-Ponty, and Foucault, moving to the Collège de

France or, like Marcel, Sartre, and Beauvoir, operating as independent intellectuals.

The leitmotiv of individual freedom is obvious from the beginning in the spiritualism of Ravaisson, the finalism of Lachelier, and the indeterminism of Renouvier and of Boutroux. Lachelier and Boutroux, in particular, are concerned to make sense of freedom in the context of a world of scientific causality. They insist from the outset on freedom as a fact, but their focus is not on explicating the fact in its own terms but on finding a place for it in a general ontological scheme compatible with a scientific worldview. Thus Lachelier, after establishing that a knowable world must be a system of efficient causes, goes on to argue that this system itself must, for parallel transcendental reasons, be embedded in a more concrete system of final causes. This latter system is the locus of the creative goals of action in terms of which Lachelier understands freedom. Boutroux, however, argues that Lachelier's comprehensive system of efficient causes cannot consistently mesh with the finality of free agents. Referring to our experience of the moral significance of freedom, he maintains that freedom is incompatible with universal causal determinism and concludes that its reality requires an indeterministic universe. His multi-layered analysis of the various forms of necessity claims to discover, beneath every necessity, a fundamental contingency.

The disagreement between Lachelier and Boutroux is, to an important extent, an instance of the classic division between compatibilism (so-called soft determinism) and libertarianism. Contemporary analytic philosophy has taken this dispute to the limit of conceptual rigor and ingenuity, seeking to reconcile, under one or the other banner, our common-sense "intuitions" regarding freedom. Can the compatibilist, who thinks free actions are causally determined, do justice to our sense that a free action is one that I could have done otherwise? Can the libertarian, who thinks free actions must be uncaused, make sense of our belief that there are always explanations of why I act as I do? Without losing all interest in the progress of this still lively discussion, we may well worry that it is not sufficiently grounded in an adequate description of the concreteness and nuance of our lived experience of freedom. Perhaps the common-sense intuitions from which it seeks to extract a finally adequate solution to the "problem of freedom" are not ultimately reliable guides to the phenomenon. At the least, we

should acknowledge that a full understanding of freedom is likely to require experiential descriptions as complex and subtle as the analytic conceptual clarifications.

Bergson, the greatest figure of the early period, begins with such descriptions in his *Essai sur les données immédiates de conscience*. As we have seen, he thought that the concrete reality of freedom undermined the premise shared by both sides of the libertarian–determinist debate: that the free self is a series of distinct psychological states that are (or even could be) causally connected. To the contrary, according to Bergson, the self is an organic continuity of duration that cannot, except by a misleading abstraction, be divided into distinct states. Its freedom, therefore, is not a matter of the determination or indetermination of its states but of its creative self-extension into a novel future.

Although, unlike his Kantian predecessors, Bergson starts from a careful description of our immediate experience of freedom, he still follows them in placing this experience in the context of a larger metaphysical scheme. His subsequent books situate the lived experience of duration in relation to, successively, the general union of mind and body, the cosmic force of the *élan vital*, and the connection of this force to the divine. This combination of descriptive concreteness and systematic scope is one of the signal merits that make Bergson a great philosopher.

The iconoclasm of the young philosophers who emerged between the wars did not extend to their predecessors' focus on freedom, which they did not reject but rather intensified. The Catholics, Blondel and Marcel, situated freedom in the concrete world of lived experience and practical action. (And even Maritain's neo-Thomism led to a defense of the individual's political freedom.) Atheistic existentialism went even further, radicalizing freedom by undermining the objective meanings and values to which it was traditionally subordinated. Nonetheless, the young existential philosophers who emerged in the 1920s and 1930s did not find Bergson's vision compelling. We saw how Merleau-Ponty rejected his description of our lived experience of freedom on the grounds that it ignores essential phenomenological structures, such as the subject–object differentiation and the three irreducible temporal modalities. Nor, of course, is it merely Bergson and Merleau-Ponty who disagree over the content of immediate experience. Even within the phenomenological camp, Sartre's descriptions differ from Merleau-Ponty's in at

least some significant details; and we saw how Marcel (and, before him, Blondel) found essential dimensions of hope, community, and transcendence that had no place in Sartre's and Merleau-Ponty's phenomenologies. Broadening our temporal and geographical horizon will, of course, lead to a much wider range of characterizations of what we most directly experience; for example, the classical sense-data account of Hume and the positivists, Reid's common-sense realism, even the pantheistic sensibility of certain mystics – and with these we remain within our own Western tradition, taking no account of the lived experiences of less accessible cultures.

It might be maintained that this diversity merely shows how complex must be the philosophical project of discovering just what is given in immediate experience. But can we in fact even imagine carrying out this project? Recent philosophy on both sides of the Channel has devastated the idea that immediate experience is an *epistemic* given that can serve as the ultimate ground of our cognitive structures. I suggest that the very idea of a unique experiential given is equally vulnerable – and to many of the same considerations. For example, the critiques of the idea of interpretation-free observation, combined with arguments for the historically contingent nature of interpretative categories, refute not only foundationalism but also the claim to have discovered the unique character of immediate experience.

Accordingly, there is no point in trying to determine a uniquely correct description of our lived experience. Experiential immediacy is a well from which many buckets may draw. The "immediate givens of consciousness" are an irrefutable and inevitable starting point of any inquiry. But while the sheer experience itself is certainly given, no preferred or controlling description or interpretation of it is. Experience can be read in many different ways, each with its own plausibility, self-consistency, and limitations. Some of these readings may be mutually incompatible, but many are literally consistent, tensions arising only when we ask which is the most comprehensive or most concrete. It is these latter questions I suggest we eschew, at least in their general form. On the whole, questions of superiority make sense only given a specific context, perspective, or purpose. Experience as such is no doubt an absolute, but there is nothing absolute that follows from it. There is good reason to suspect that, for a domain as complex and elusive as experience, no one formulation will be comprehensively and exhaustively adequate. In

appreciating and evaluating the great philosophies of experience, we should rather think, in Nietzschean terms, of each as a particular vocabulary, with its own strengths and limitations, which we can expect to be of varying value for different purposes. In this regard, philosophies are like novels, not alternative absolutes among which we must choose the "right one" but different perspectival visions (perhaps complementary, but perhaps incompatible or even incommensurable), all of which have their relative values and uses.

From this standpoint, the new philosophies of existence that arose in France after World War I represent not a refutation of Bergson but an exploration of new aspects of our experience of freedom, aspects that came to the fore in virtue of a new orientation toward human existence. Specifically, the philosophers of existence were no longer content with Bergson's optimistic holism, according to which our species is continuous with nature and assured a central role in its creative advance. They sought instead a philosophy consistent with their tragic vision of human beings thrown into a world of contingency and conflict, in which salvation requires either the intrusion of divine grace or our own creation of authentic meanings.

This transformation of vision is not a refutation of Bergson's philosophy, because philosophies are instruments for focusing and elaborating fundamental visions of the human condition, not foundationalist justifications of such visions. We inevitably begin with fundamental perspectives on our lives that themselves define what we require of our philosophical reflection. Past philosophies are relevant or irrelevant to our concerns depending on the degree to which they share our fundamental perspectives. The young philosophers of existence shared their neo-Kantian teachers' commitment to the centrality of individual freedom and, at least in the case of Sartre, even their commitment to situating this freedom in a comprehensive ontological scheme. Their perspective differed from that of the neo-Kantians and agreed with Bergson's in its demand for a detailed philosophical explication of our concrete experience of freedom. But their explication of this experience was driven by their own distinctive tragic vision of human existence. The split between theistic and atheistic existentialism turned on pre-philosophical differences regarding the ultimate absoluteness of human freedom.

The great achievement of French existentialism is its penetrating descriptions of just what it means to be free in a world in which we are, nonetheless, so integrally implicated that we must speak of our

being as "being-in-the-world". Sartre is the philosopher of freedom par excellence, not only for the unparalleled detail and subtlety of his phenomenological descriptions and ontological explications of it, but also for his continuing struggle to embed it in the realities of society and history. It is precisely because Sartre brings thinking about freedom to a peak of intensity that he remains the central French philosopher of this century. His *L'être et le néant*, whatever the limitations of its ontological categories, provides a powerful account of our lived experience of freedom as an irreducible reality in our engagement with the world. And all his work, both philosophical and literary, even if it does not achieve a comprehensive ethical vision, establishes the centrality of freedom as a moral value. Merleau-Ponty's appreciation of our embodiment provides an essential correction to the dualistic tendencies of Sartre's ontology. Beauvoir's *Deuxième sexe* goes even further, describing the significance of female embodiment as a biological and historical reality and connecting it to a specific ethical and political project. We may readily question details of these descriptions and, even more, the network of ontological and political commitments to which Sartre and company connected them. But no one who seeks a philosophy of freedom rooted in the concreteness of daily life should ignore the rich starting-point the existentialists have provided.

We have seen that what often appears as an overthrow of existentialism from the outside by structuralism in fact originated, in the work of Merleau-Ponty, from the internal logic of existential phenomenology. Unless it recognizes human structures (social and psychological) inaccessible to consciousness, phenomenology cannot avoid collapsing into idealism. Accordingly, phenomenological experience requires supplementation by "ethnological experience", of which Lévi-Strauss's structuralism was a paradigm example. As Merleau-Ponty saw it, a proper understanding of freedom, one that avoided an unacceptable gap between subject and object, required a synthesis of these two perspectives. Sartre's own responses to Lévi-Strauss and Foucault, as well as the ontology of *Critique de la raison dialectique*, show that he also accepted the need for such a synthesis.

Why then did structuralism come to be instead regarded as a stark alternative to existential phenomenology? A first level of explanation lies in the rivalry between Lévi-Strauss and Sartre for the position of reigning French master-thinker. Lévi-Strauss's explicit, sometimes virulent challenge to Sartre's dominant position (as in the concluding

chapter of *La pensée sauvage*) left no room for cooperative inquiry. If Merleau-Ponty, with his close ties to Lévi-Strauss, had lived long enough and succeeded Sartre (whose interests were becoming much less philosophical) as the leading existential phenomenologist, the relations between structuralism and phenomenology may well have been very different. Moreover, with the death of Merleau-Ponty and Sartre's relative withdrawal from philosophy, the vitality of French phenomenology was sapped and its energy flowed into the new poststructuralist direction.

Poststructuralism strongly challenged the privileged role of phenomenological consciousness, speaking of the "death of man" and insisting on the subject's domination by social and linguistic structures. But it would be a gross error to conclude that this challenge was a break with the twentieth-century French focus on individual freedom. With the possible exception of Althusser's Marxism, French philosophy after 1960 strongly opposed the suggestion that individual freedom could find no purchase in a structuralist world. Such opposition was part of what made this philosophy *post*structuralist.

The poststructuralists rejected the philosophical apparatus through which existential phenomenology had explicated freedom, questioning its descriptive and ontological methods as well as its central category of consciousness. But this very rejection expressed their commitment to individual freedom. (Indeed, one reason structuralist social science so quickly collapsed as a philosophical framework was its incompatibility with freedom.) Foucault's archaeologies and genealogies, for example, are explicitly developed to free us from the limitations of specific conceptual and social structures. His critique is merely of philosophical conceptions of freedom that threaten its historical reality. Similarly, Derridean deconstruction and the other philosophies of difference attack philosophical constructions – the subject, identity, the masculinist self – through which the tradition has conceptualized freedom. But this attack is itself for the sake of freeing us from the constraints of those constructions. The justice sought by Derrida and Lyotard, like the ethical and political goals of Deleuze and Irigaray, flows from a prephilosophical commitment to individual freedom. The fin-de-siècle "return to the subject" is in the name of a freedom that thinkers such as Ferry and Renaut see as destroyed by the radical individualism of poststructuralism. But this claim is a significant challenge to Derrida, Nancy, and

Lacoue-Labarthe precisely because, if correct, it effects a genuine reductio of their thought, which becomes incoherent if it is truly incapable of maintaining individual freedom.

Nonetheless, poststructuralism contributed little to our philosophical understanding of freedom. Foucault made us aware of how various popular and scientific (or pseudo-scientific) conceptions of the self – particularly in terms of modern notions of "normality" – could be instruments of domination. And his genealogy and Derrida's deconstruction can show how what we regard as essential limitations on thought and action are often historically contingent constraints. But, as we have seen, Foucault's critique of "man" in *Les mots et les choses* does not demonstrate that traditional philosophical conceptions of the subject are as such part of oppressive social power. Moreover, it is not at all obvious that the core existentialist understanding of freedom, particularly in terms of Sartrean negation, is susceptible to poststructuralist critiques of Cartesian, Kantian, or Husserlian subjectivity. The freedom of Sartrean consciousness, which "is what it is in the mode of not being it", is not very far from a manifestation of Derridean *différance*.[1] At the very least, *L'être et le néant* and *Critique de la raison dialectique* would be excellent starting-points for a serious poststructuralist exploration of freedom.

Unfortunately, few poststructuralists have been interested in developing a positive philosophical understanding of freedom (although Jean-Luc Nancy, whose work picks up Sartrean themes, has been an important recent exception). They remain content with a naive, prereflective commitment to the unquestionable status of transgression, novelty, plurality, and difference as absolute ethical ideals. There is, accordingly, no inclination to ask difficult questions about the roots and limits of human freedom; the consuming task is to expose and overcome all obstacles to its unrestricted expansion. So, for example, Lyotard's philosophy of difference and Deleuze's ontology unqualifiedly endorse the most radical liberation without stopping to ask just what it would consist in and why it is so important.

In this respect at least, poststructuralism is an interlude rather than a decisive turning-point in the history of French philosophy. It

[1] On the similarity of Sartrean and poststructuralist views of subjectivity, see Christina Howells, "Conclusion: Sartre and the Deconstruction of the Subject", in Christina Howells (ed.), *The Cambridge Companion to Sartre*.

has been important for its questioning of limits and, especially, for its rejection of traditional philosophical claims to ultimate truth. But, once its critiques are properly acknowledged, there remains the fundamental twentieth-century project of articulating the individual as a locus of freedom. The recent return of French thought to the ethical philosophies of Kant and Levinas is an effort to revive the project of this articulation. In this retrospective mood, current French philosophers of freedom could also fruitfully revive – as some have begun to do – an interest in Bergson and Sartre.

But philosophical progress is never a matter of mere returns or revivals, and there is a real possibility that the twentieth-century French problematic of freedom has finally worked itself out. It has, after all, thoroughly developed the topic through embedding freedom in general systems of thought, describing our lived experience of it, and deconstructing the forces that act against it. Perhaps the theme has, for the foreseeable future, been essentially exhausted. Further, there are signs that French philosophy is losing its distinctive national character and may be splitting into a variety of elements (phenomenology, analytic philosophy, feminism) that will each make its own contribution to corresponding international discussions. At the same time, the ever-increasing prestige of the social sciences has drawn considerable talent out of philosophy and undermined its status as the leading intellectual discipline. It may not be long before we look back on twentieth-century French philosophy as a vanished golden age.

Appendix: Philosophy and the French educational system

Since Napoleon, the base of French education has been the lycée, a state-funded and -controlled secondary school (the equivalent of American high school), which awards the *baccalauréat* degree. There are also a number of non-state secondary schools, now generally run by the Catholic Church, which are called *collèges*. (State schools for children at the junior high level are now also called *collèges*.) All students in the final year of the lycée take at least two hours of philosophy per week, and there are, accordingly, about 8000 teachers of philosophy in the lycées.

Undergraduate university studies begin with two years of work in a broadly defined area of specialization (for example, philosophy), followed by two or three years of more advanced study in the same area. Students completing the third year receive a *licence* in their area of specialization, and those completing the fourth year receive a *maîtrise*. (The first two years are now called the *premier cycle* and lead to a Diplôme d'Études Universitaires Générales (DEUG); the next two years constitute the *deuxième cycle*.) Graduate education (now called the *troisième cycle*) has taken various forms over the twentieth century. Currently, the first year of graduate studies leads to a Diplôme d'Études Approfondies (DEA), the rough equivalent of an American master's degree, which is where most graduate students end their studies. Further work is directed toward a doctoral degree. Until recently, there was the university doctorate (*doctorat d'université*), which, however, carried little prestige, and the state doctorate (*doctorat d'état*), which was the standard requirement for a position as a full professor in a university (as opposed to a *maître de conférences*, the equivalent of an associate professor). The latter degree required two theses, a primary one written in French and a shorter "complementary" thesis (which, until the beginning of the twentieth century, had to be written in Latin), typically on a historical topic related to the

main thesis. In 1966, a third doctoral degree, a *doctorat du troisième cycle*, was added as a preliminary to the *doctorat d'état*. In 1984 the three doctorates were replaced by a single doctorate (itself called the *doctorat du troisième cycle*), but there is now also a *habilitation* (modelled on the German degree) required for a position as full professor, which is awarded following a candidate's defense of a set of scholarly writings (often already published).

The *agrégation* is a competitive exam for positions as teachers in lycées. It is not a necessary condition for lycée teaching, and today the majority of lycée teachers are not *agrégés*. (The alternative path to lycée teaching is a Certificat d'aptitude au professorat de l'enseignement du second degré [CAPES].) But the few who pass the *agrégation* (ranked in strict numerical order) are a very elite group, with the best chances for positions at top lycées. Moreover, university teachers, particularly in the humanities, typically are *agrégés*, although this is not an official requirement.

The usual – and surest – preparation for the *agrégation* is study at the École Normale Supérieure (ENS) in Paris, a super-elite institution, acceptance to which depends on success in a fiercely competitive (written and oral) examination. Candidates for the ENS spend two years beyond their *baccalauréat* degree studying at elite lycées for the test. (The second year is called *khâgne*, from the Greek for "lazy" and the first *hypokhâgne* ["before *khâgne*"].) Corresponding to its privileged position in the general educational system, philosophy was for a long time the most prestigious concentration at the École Normale, and most of the leading philosophers were (and still are) *normaliens*. The school is located in the heart of the Latin Quarter on the rue d'Ulm. (A branch for women was established in 1881 at Sèvres, just outside of Paris, but since the 1930s women have been admitted at the rue d'Ulm.) *Normaliens* can follow courses at the Sorbonne, and Sorbonne students preparing for the *agrégation* can sit in on ENS courses. The ENS is just one of several *grandes écoles* established after the Revolution to train French elites for various areas of government service. Currently, the most important *grandes écoles* include the ENS, the École Polytechnique, the École des Hautes Études Commerciales (for business), and the École Nationale d'Administration (for government officials).

Most influential philosophers have had positions at the University of Paris (specifically, at the Sorbonne, the University's College of Arts and Sciences), although some few have remained at provincial

universities, the top Parisian lycées, or the ENS. For centuries, the University of Paris was simply the famous medieval institution on the Left Bank, but today there are numerous branches, at various locations in and around the capital.

Another important part of the French intellectual scene is a variety of multi-disciplinary centers, independent of the university system. The most famous of these is the Collège de France, roughly similar to the Princeton Institute for Advanced Study, whose professors have no formal students and are merely required to give a series of public lectures each year. A chair at the Collège is a high honor, often bitterly fought for, but it can also mean fewer disciples and much less influence on university education. Bergson, Merleau-Ponty, and Foucault all held chairs at the Collège de France. Also deserving mention are the École Pratiques des Hautes Études, founded under Napoleon III and, especially, the École des Hautes Études en Sciences Sociales, which split off from it after World War II, where major figures of the structuralist movement in the 1950s and 1960s (e.g., Claude Lévi-Strauss, Georges Dumézil, and Roland Barthes) held positions. Since World War II, the Centre National de la Recherche Scientifique (CNRS) has been a major source of facilities and support for research in numerous academic disciplines, including philosophy.

On another level, the Collège International de Philosophie has, since its founding in 1983, been an important center of philosophical activity. It has no permanent members and is not part of the official educational system. Nonetheless, led successively by directors such as Jacques Derrida, Jean-François Lyotard, and Philippe Lacoue-Labarthe, it has been an exciting locus of teaching and research for philosophers from both France and abroad and has encouraged work outside the conventional boundaries of the universities and the *grandes écoles*.

References

Aeschliman, J.-C. (ed.), *Répondre d'autrui: Emmanuel Levinas*, Neuchâtel: Baconnière, 1989.

Althusser, Louis, *L'avenir dure longtemps*, Paris: Stock/IMEC, 1992 (*The Future Lasts Forever*, translated by Richard Veasey, New York: The New Press, 1993).

Armstrong, T. J. (ed.), *Michel Foucault: Philosopher*, New York: Routledge, 1991.

Bachelard, Gaston, *L'engagement rationaliste*, Paris: Presses Universitaires de France, 1972.

Le nouvel esprit scientifique, Paris: Alcan, 1934 (*The New Scientific Spirit*, translated by Arthur Goldhammer, Boston: Beacon, 1984).

"La philosophie scientifique de Léon Brunschvicg", *Revue de métaphysique et de morale* 50 (1945), 77–84; reprinted in *L'engagement rationaliste*, 169–77.

La poétique de l'espace, Paris: Presses Universitaires de France, 1961 (*The Poetics of Space*, translated by Maria Jolas, New York: Orion, 1964).

La poétique de la rêverie, Paris: Presses Universitaires de France, 1960 (*The Poetics of Reverie*, translated by Daniel Russell, Boston: Beacon, 1969).

La psychoanalyse de feu, Paris: Gallimard, 1938 (*The Psychoanalysis of Fire*, translated by G. C. Waterston, New York: Orion, 1969).

La valeur inductive de la relativité, Paris: Vrin, 1929.

Barthes, Roland, *Mythologies*, Paris: Seuil, 1957 (*Mythologies*, selections, translated by Annette Lavers, London: Cape, 1972).

Le plaisir du texte, Paris: Seuil, 1973 (*The Pleasure of the Text*, translated by Richard Miller, New York: Hill and Wang, 1975).

Système de la mode, Paris: Seuil, 1967 (*The Fashion System*, translated by M. Ward and R. Howard, New York: Hill and Wang, 1983).

S/Z, Paris: Seuil, 1970 (*S/Z*, translated by Richard Miller, New York: Hill and Wang, 1974).

Bataille, Georges, *Oeuvres complètes*, Paris: Gallimard, 1988.

Sur Nietzsche, Paris: Gallimard, 1945 (*On Nietzsche*, translated by Bruce Boone, New York: Paragon, 1992).

Visions of Excess, edited and translated by Alan Stoekl, Minneapolis: University of Minnesota Press, 1985.

Beauvoir, Simone de,
La cérémonie des adieux, Paris: Gallimard, 1981 (*Adieux: A Farewell to Sartre*, translated by Patrick O'Brian, New York: Pantheon Books, 1984).
Le deuxième sexe, 2 vols., Paris: Gallimard, 1949 (*The Second Sex*, translated by H. M. Parshley, New York: Vintage, 1989).
La force de l'âge, Paris: Gallimard, 1960 (*The Prime of Life*, translated by Peter Green, Cleveland: World Publishing, 1962).
La force des choses, Paris: Gallimard, 1963 (*Force of Circumstance*, translated by Richard Howard, New York: Putnam, 1965).
L'invitée, Paris: Gallimard, 1943 (*She Came to Stay*, translated by Peter Green, London: Secker & Warburg, 1949).
"Littérature et métaphysique", in *L'existentialisme et la sagesse des nations*, Paris: Nagel, 1948.
Mémoires d'une jeune fille rangée, Paris: Gallimard, 1958 (*Memoirs of a Dutiful Daughter*, Cleveland: World Publishing, 1959).
"Merleau-Ponty et le pseudo-sartrisme", *Les temps modernes* 10 (1955), 2072–122.
Pour une morale de l'ambiguïté, Paris: Gallimard, 1947 (*Ethics of Ambiguity*, translated by Bernard Frechtman, New York: Philosophical Library, 1948).
Le sang de autres, Paris: Gallimard, 1945 (*The Blood of Others*, translated by R. Senhouse & Y. Moyse, New York: Knopf, 1948).
Tous les hommes sont mortels, Paris: Gallimard, 1946 (*All Men are Mortal*, translated by Leonard Friedman, New York: World Publishing, 1955).
La vieillesse, Paris: Gallimard, 1970 (*The Coming of Age*, translated by Patrick O'Brian, New York: Putnam, 1972).
Bennington, Geoffrey, *Lyotard: Writing the Event*, New York: Columbia University Press, 1988.
Bennington, Geoffrey and Derrida, Jacques, *Jacques Derrida*, Chicago: University of Chicago Press, 1993.
Benrubi, Isaac, *Les sources et les courants de la philosophie contemporaine en France*, Paris: Alcan, 1933.
Bergson, Henri, *Les deux sources de la morale et de la religion*, in Henri Bergson, *Oeuvres* (*The Two Sources of Morality and Religion*, translated by R. Audra and C. Brereton, Notre Dame, IN: University of Notre Dame Press, 1977).
Durée et simultanéité, 2nd edn., Paris: Alcan, 1923 (*Duration and Simultaneity*, translated by Leon Jacobson, Indianapolis: Bobbs-Merrill, 1965).
L'énergie spirituelle, in Henri Bergson, *Oeuvres*.
Essai sur les données immédiates de la conscience, in Henri Bergson, *Oeuvres* (*Time and Free Will*, translated by F. L. Pogson, London: Sonnenschein, 1910).
L'évolution créatrice, in Henri Bergson, *Oeuvres* (*Creative Evolution*, translated by Arthur Mitchell, New York: Modern Library, 1944).

Matière et mémoire, in Henri Bergson, *Oeuvres* (*Matter and Memory*, translated by N. M. Paul and W. S. Winter, New York: Zone Books, 1988).

Oeuvres, Paris: Presses Universitaires de France, 1959.

La pensée et le mouvant, in Henri Bergson, *Oeuvres* (*The Creative Mind*, translated by Mabelle Andison, New York: Greenwood, 1968).

Bernasconi, Robert and Simon Critchley (eds.), *Re-Reading Levinas*, Bloomington, IN; University of Indiana Press, 1997.

Blanchot, Maurice, *L'écriture du désastre*, Paris: Gallimard, 1980 (*The Writing of the Disaster*, translated by Ann Smock, Lincoln, NE: University of Nebraska Press, 1986).

L'espace littéraire, Paris: Gallimard, 1955 (*The Space of Literature*, translated by Ann Smock, Lincoln, NE: University of Nebraska Press, 1982).

Le pas au-delà, Paris: Gallimard, 1973 (*The Step not Beyond*, translated by Lycette Nelson, Albany: State University of New York Press, 1992).

Blondel, Maurice, *L'action*, Paris: Presses Universitaires de France, 1963 (*Action*, translated by Olivia Blanchette, Notre Dame, IN: University of Notre Dame Press, 1984).

L'être et les êtres, Paris: Presses Universitaires de France, 1963.

La pensée, Paris: Alcan, 1934.

La philosophie et l'esprit chrétien, Paris: Presses Universitaires de France, 1944.

Boutroux, Émile, *De l'idée de loi naturelle dans la science et la philosophie contemporaine*, Paris: Alcan, 1895 (*Natural Law in Science and Philosophy*, translated by Fred Rothwell, London: Open Court, 1914).

La contingence de les lois de la nature, Paris: Alcan, 1874 (*Natural Law in Science and Philosophy*, translated by Fred Rothwell, London: Open Court, 1914).

Nouvelles études d'histoire de la philosophie, Paris: Alcan, 1927.

Philosophy and War, translated by Fred Rothwell, New York: E. P. Dutton, 1916.

Bouveresse, Jacques, *La philosophie chez les autophages*, Paris: Minuit, 1984.

Le philosophe et le réel, Paris: Hachette, 1998.

Rationalité et cynisme, Paris: Minuit, 1985.

"Why I am so very UnFrench", in Alan Montefiore (ed.), *Philosophy in France Today*, 9–33.

Bruns, Gerald, *Maurice Blanchot*, Baltimore: Johns Hopkins University Press, 1997.

Brunschvicg, Léon, *Les étapes de la philosophie mathématique*, Paris: Alcan, 1912.

L'expérience humaine et la causalité physique, Paris: Alcan, 1922.

L'idéalisme contemporain, Paris: Alcan, 1921.

La modalité du jugement, Paris: Presses Universitaires de France, 1964.

Le progrès de la conscience dans le philosophie occidentale, Paris: Presses Universitaires de France, 1953.

"Vie intérieure et vie spirituelle", *Revue de métaphysique et de morale* 32 (1925), 139–48.

Burchell, Graham, et al. (eds.), *The Foucault Effect*, Chicago: University of Chicago Press, 1991.

Canguilhem, Georges, *Idéologie et rationalité*, Paris: Vrin, 1977 (*Ideology and Rationality in the History of the Life Sciences*, translated by Arthur Goldhammer, Cambridge, MA: MIT Press, 1988).

Le normal et le pathologique, Paris: Presses Universitaires de France, 1966 (*On the Normal and the Pathological*, translated by Carolyn R. Fawcett, Dordrecht: Reidel, 1978).

A Vital Rationalist: Selected Writings from Georges Canguilhem, edited by François Delaporte, translated by Arthur Goldhammer, New York: Zone Books, 1994.

Čapek, Milic, *Bergson and Modern Physics*, Dordrecht: Reidel, 1971.

Caputo, John, *The Prayers and Tears of Jacques Derrida*, Bloomington, IN: Indiana University Press, 1997.

Caputo, John (ed.), *Deconstruction in a Nutshell*, New York: Fordham University Press, 1997.

Cavaillès, Jean, *Méthode axiomatique et formalisme*, Paris: Hermann & cie, 1938.

"On Logic and the Theory of Science", in Kockelmans and Kisiel (eds.), *Phenomenology and the Natural Sciences*, 353–409.

Remarques sur la formation de la théorie abstraite des ensembles, Paris: Hermann & Cie, 1938.

Caws, Peter, *Sartre*, London: Routledge, 1979.

Cohen-Solal, Annie, *Sartre: A Life*, translated by Anna Cancogni, New York: Pantheon, 1987.

Collins, James, *The Existentialists*, Chicago: Regnery, 1952.

Comte, Auguste, *The Essential Comte*, edited by Stanislav Andreski, translated by Margaret Clarke, London: Croom Helm, 1974.

Cornell, D., Rosenfeld, M., and Carlson, D. (eds.), *Deconstruction and the Possibility of Justice*, London: Routledge, 1992.

Courtine, Jean-François, *Heidegger et la phénoménologie*, Paris: Vrin, 1986.

Creech, J., Kamuf, P., and Todd, J., "Deconstruction in America: An Interview with Jacques Derrida", *Critical Exchange* 14.

Culler, Jonathan, *Roland Barthes*, Oxford: Oxford University Press, 1983.

On Deconstruction, Ithaca, NY: Cornell University Press, 1982.

Ferdinand de Saussure, revised edition, Ithaca, NY: Cornell University Press, 1986.

Curtius, Ernst, *Die Französische Kultur*, Bern: Francke, 1975 (first published 1930) (*Civilization of France*, translated by Olive Wyon, New York: Macmillan, 1932).

Davis, Colin, *Levinas: An Introduction*, Notre Dame, IN: University of Notre Dame Press, 1991.

Deleuze, Gilles, *Bergsonisme*, Paris: Presses Universitaires de France, 1965 (*Bergsonism*, translated by Hugh Tomlinson and Barbara Habberjam, New York: Zone Books, 1988).

"La conception de la différence chez Bergson", *Les études bergsoniennes* 4 (1956), 76–112.

Différence et répétition, Paris: Presses Universitaires de France, 1968 (*Difference and Repetition*, translated by Paul Patton, New York: Columbia University Press, 1994).

Foucault, Paris: Minuit, 1986 (*Foucault*, translated by Séan Hand, Minneapolis: University of Minnesota Press, 1988).

"L'immanence: une vie . . .", *Philosophie* 47 (1995), 3–7.

Logique du sens, Paris: Minuit, 1969 (*The Logic of Sense*, translated by M. Lester and C. Stivale, New York: Columbia University Press, 1990).

Nietzsche et la philosophie, Paris: Presses Universitaires de France, 1962 (*Nietzsche and Philosophy*, translated by Hugh Tomlinson, New York: Columbia University Press, 1983).

La philosophie critique de Kant, Paris: Presses Universitaires de France, 1963 (*Kant's Critical Philosophy*, translated by H. Tomlinson and B. Habberjam, Minneapolis, MN: University of Minnesota Press, 1984).

Pourparlers, Paris: Minuit, 1990 (*Negotiations*, translated by Martin Joughin, New York: Columbia University Press, 1995).

Spinoza et le problème de l'expression, Paris: Editions de Minuit, 1968 (*Expressionism in Philosophy: Spinoza*, translated by Martin Joughin, New York: Zone Books, 1990).

Deleuze, Gilles, and Félix Guattari, *L'anti-oedipe*, Paris: Minuit, 1972 (*Anti-Oedipus*, translated by R. Hurley, M. Seem, and H. Lane, Minneapolis: University of Minnesota Press, 1983).

Mille Plateaux, Paris: Minuit, 1980 (*A Thousand Plateaus*, translated by Brian Massumi, Minneapolis: University of Minnesota Press, 1987).

Qu'est-ce que la philosophie?, Paris: Minuit, 1991 (*What is Philosophy?*, translated by H. Tomlinson and G. Burchell, New York: Columbia University Press, 1994).

Derrida, Jacques, *La carte postale*, Paris: Flammarion, 1980 (*The Post Card*, translated by Alan Bass, Chicago: University of Chicago Press, 1987).

De la grammatologie, Paris: Minuit, 1967 (*Of Grammatology*, corrected edition, translated by Gayatri Spivak, Baltimore, MD: Johns Hopkins University Press, 1998).

De l'esprit, Paris: Gallimard, 1987 (*Of Spirit: Heidegger and the Question*, translated by G. Bennington and R. Bowlby, Chicago: University of Chicago Press, 1989).

La dissémination, Paris: Seuil, 1972 (*Dissemination*, translated by Barbara Johnson, Chicago: University of Chicago Press, 1981).

Donner la mort, Paris, Galilée, 1999 (*The Gift of Death*, translated by David Wills, Chicago: University of Chicago Press, 1995).

Du droit à la philosophie, Paris: Galilée, 1990.

L'écriture et la différence, Paris: Seuil, 1967 (*Writing and Difference*, translated by Alan Bass, Chicago: University of Chicago Press, 1978).

Éperons: les styles de Nietzsche, Venice: Corbo e Fiori, 1976 (*Spurs: Nietzsche's Styles*, translated by Barbara Harlow, Chicago: University of Chicago Press, 1979).

Force de loi: le "fondement mystique de l'autorité", Paris: Galilée, 1994 ("Force of Law", translated by Mary Quaintance in Cornell et al., *Deconstruction and the Possibility of Justice*).

Glas, Paris: Galilée, 1974 (*Glas*, translated by J. Leavey, Jr. and R. Rand, Lincoln, NE: University of Nebraska Press, 1986).

Introduction à "L'origine de la géometrie" de Husserl, Paris: Presses Universitaires de France, 1962 (*Edmund Husserl's* Origin of Geometry*: An Introduction*, translated by J. P. Leavey, Jr., Lincoln, NE: University of Nebraska Press, 1989).

Limited Inc., translated by Elizabeth Weber, Paris: Galilée, 1990 (*Limited Inc.*, Evanston, IL: Northwestern University Press, 1988).

"La loi du genre", *Glyph* 7 (1980), 176–201 (English translation following, 202–29).

Marges de la philosophie, Paris: Minuit, 1972 (*Margins of Philosophy*, translated by Alan Bass, Chicago: University of Chicago Press, 1982).

Otobiographies: L'enseignement de Nietzsche et la politique du nom propre, Paris: Galilée, 1984 (*The Ear of the Other*, translated by Peggy Kamuf, et al., New York: Schocken, 1985).

Parages, Paris: Galilée, 1984.

Points, edited by Elizabeth Weber, Paris: Editions Gallilée, 1992 (*Points*, translated by Peggy Kamuf, et. al., Stanford, CA: Stanford University Press, 1995).

Politiques de l'amitié, Paris: Galilée, 1994 (*Politics of Friendship*, translated by George Collins, London: Verso, 1997).

Positions, Paris: Minuit, 1972 (*Positions*, translated by Alan Bass, Chicago: University of Chicago Press, 1981).

Psyché: inventions de l'autre, Paris: Gallimard, 1987.

Spectres de Marx, Paris: Galilée, 1993 (*Specters of Marx*, translated by Peggy Kamuf, London: Routledge, 1994).

"'To Do Justice to Freud': The History of Madness in the Age of Psychoanalysis", in Arnold Davidson (ed.), *Foucault and His Interlocutors*, Chicago: University of Chicago Press, 1997, 57–96.

La voix et le phénomène, 3rd edn., Paris: Presses Universitaires de France, 1976 (*Speech and Phenomena*, translated by David Allison, Evanston, IL: Northwestern University Press, 1973).

Descombes, Vincent, *Le même et l'autre*, Paris: Minuit, 1979 (*Modern French Philosophy*, Cambridge: Cambridge University Press, 1980).

Dews, Peter, *Logics of Disintegration: Post-Structuralist Thought and the Claims of Critical Theory*, London: Verso, 1987.

Dosse, François, *History of Structuralism*, 2 vols., translated by Deborah Glassman, Minneapolis: University of Minnesota Press, 1997.

Paul Ricoeur: les sens d'une vie, Paris: Éditions la Découverte, 1997.

Duhem, Pierre, *La théorie physique: son objet, sa structure*, 2nd edn., Paris: Rivière, 1914 (*The Aim and Structure of Physical Theory*, translated by Philip Wiener, New York: Atheneum, 1962).

Dupont, Christian, *Receptions of Phenomenology in French Philosophy and Religious Thought, 1889–1939*, dissertation, University of Notre Dame, 1997.

Elliot, Gregory (ed.), *Althusser: A Critical Reader*, Oxford: Blackwell, 1994.

Engel, Pascal, *La dispute*, Paris: Minuit, 1997.

Eribon, Didier, *Michel Foucault*, 2nd edn., Paris: Flammarion, 1991 (*Michel Foucault*, translated by Betsy Wing, Cambridge, MA: Harvard University Press, 1991).

Fabiani, Jean-Louis, *Les philosophes de la république*, Paris: Minuit, 1988.

Farias, Victor, *Heidegger et le nazisme*, Paris: Verdier, 1987 (*Heidegger and Nazism*, translated by P. Burrell and G. Ricci, Philadelphia, PA: Temple University Press, 1989).

Ferry, Luc, *Homo Aestheticus*, Paris: Grasset, 1990 (*Homo Aestheticus*, translated by Robert de Loaiza, Chicago: University of Chicago Press, 1993).

Ferry, Luc and Renaut, Alain, *La pensée 68*, Paris: Gallimard, 1988 (*French Philosophy of the Sixties*, translated by Mary Cattani, Amherst, MA: University of Massachusetts Press, 1990).

ffrench, Patrick, and Lack, Roland-François (eds.), *The Tel Quel Reader*, London: Routledge, 1998.

Flynn, Thomas, *Sartre and Marxist Existentialism*, Chicago: University of Chicago Press, 1984.

Foucault, Michel, *L'archéologie du savoir*, Paris: Gallimard, 1969 (*The Archaeology of Knowledge*, translated by A. Sheridan Smith, New York: Harper and Row, 1972).

Essential Works of Foucault, 1954–1984, 3 vols., edited by Paul Rabinow, New York: The New Press, 1997–9.

Folie et déraison, Paris: Gallimard, 1966 (*Madness and Civilization*, translated by Richard Howard, New York: Pantheon, 1965).

Histoire de la sexualité, 3 vols.: *La volonté de savoir*, *L'usage des plaisirs*, and *Le souici de soi*, Paris: Gallimard, 1976, 1984 (*History of Sexuality*, 3 vols.: *Introduction*, *The Uses of Pleasure*, and *Care of the Self*, translated by Robert Hurley, New York: Vintage Books, 1988–90).

"L'homme est-il mort?" interview in *Arts* 30 (1966).

Language, Counter-Memory, and Practice, edited by Donald Bouchard, Ithaca, NY: Cornell University Press, 1977.

Maladie mentale et personnalité, Paris: Presses Universitaires de France, 1954.

Maladie mentale et psychologie, Paris: Presses Universitaires de France, 1962 (*Mental Illness and Psychology*, translated by Alan Sheridan, New York: Harper and Row, 1976).

"Michel Foucault répond à Sartre", *Quinzaine Littéraire*, March 1, 1968.

Les mots et les choses, Paris: Gallimard, 1966 (*The Order of Things*, New York: Vintage, 1973).

"My Body, this Paper, this Fire", *Oxford Literary Review* 4 (1979), 5–28.

Naissance de la clinique, Paris: Presses Universitaires de France, 1963 (*The Birth of the Clinic*, translated by A. Sheridan Smith, New York: Pantheon, 1973).

Politics, Philosophy, Culture, edited by L. Kritzman, translated by A. Sheridan, et al., London: Routledge, 1988.

Power/Knowledge, edited and translated by Colin Gordon, New York: Pantheon, 1980.

Raymond Roussel, Paris: Gallimard, 1963 (*Death and the Labyrinth: The World of Raymond Roussel*, translated by Charles Ruas, Garden City, NY: Doubleday, 1986).

Surveiller et punir, Paris: Gallimard, 1975 (*Discipline and Punish*, translated by Alan Sheridan, New York: Pantheon, 1977).

Foucault, Michel, and Binswanger, Ludwig, *Dream and Existence*, edited by Keith Hoeller, New Jersey: Humanities Press, 1993.

Frank, Manfred, *What is Neostructuralism?*, translated by S. Walker and R. Gray, Minneapolis: University of Minnesota Press, 1989.

Fry, Christopher, *Sartre and Hegel: The Variation of an Enigma in* L'être et le néant, Bonn: Bouvier, 1988.

Fullbrook, Edward and Kate, *Simone de Beauvoir and Jean-Paul Sartre: The Remaking of a Twentieth-Century Legend*, New York: Harvester Wheatsheaf, 1993.

Galois, Philippe and Forzy, Gérard, *Bergson et les neurosciences*, Institut Synthélabo pour le Progrès de la Connaissance, 1997.

Gilson, Etienne, *La liberté chez Descartes et la théologie*, Paris: Alcan, 1913.

Granger, Gilles-Gaston, *Wittgenstein*, Paris: Seghers, 1968.

Griffiths, A. Phillips (ed.), *Contemporary French Philosophy*, Cambridge: Cambridge University Press, 1987.

Guattari, Félix, *Psychoanalyse et transversalité*, Paris: Maspero, 1972.

Guitton, Jean, *Regards sur la pensée française, 1870–1940*, Paris: Beauchesne, 1968.

Gunn, J. Alexander, *Modern French Philosophy*, London: T. Fisher Unwin, 1922.

Gurvitch, Georges, *Les tendences actuelles de la philosophie allemande*, Paris: Vrin, 1930.

Gutting, Gary, *Michel Foucault's Archaeology of Scientific Reason*, Cambridge: Cambridge University Press, 1989.

Gutting, Gary (ed.), *The Cambridge Companion to Foucault*, Cambridge: Cambridge University Press, 1994.

Hahn, Lewis (ed.), *The Philosophy of Paul Ricoeur* (Library of Living Philosophers, 22), LaSalle, IL: Open Court, 1995.

Hamelin, Octave, *Essai sur les éléments principaux de la représentation*, Paris: Alcan, 1907.

Le système de Renouvier, Paris: Vrin, 1927.

Hardt, Michael, *Gilles Deleuze: An Apprenticeship in Philosophy*, Minneapolis: University of Minnesota Press, 1993.

Hegel, G. W. F., *La phénoménologie de l'esprit*, translated by Jean Hyppolite, Paris: Aubier, 1941.

Henry, Michel, *L'essence de la manifestation*, Paris: Vrin, 1986.

Hering, Jean, *Phénoménologie et philosophie religieuse*, Strasbourg: Alsacienne, 1925.

Höffding, Harald, *A History of Modern Philosophy*, translated by B. E. Meyer, London: Macmillan, 1924.

Holland, Eugene, *Deleuze and Guattari's* Anti-Oedipus: *Introduction to Schizoanalysis*, New York: Routledge, 1999.

Hollier, Denis (ed.), *A New History of French Literature*, Cambridge, MA: Harvard University Press, 1989.

Howells, Christina, *Derrida: Deconstruction from Phenomenology to Ethics*, Cambridge: Polity Press, 1999.

Howells, Christina (ed.), *The Cambridge Companion to Sartre*, Cambridge: Cambridge University Press, 1992.

Husserl, Edmund, *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy, First Book*, translated by Frederick Kersten, The Hague: Nijhoff, 1972.

Méditations cartésiennes, Paris: Vrin, 1947 (*Cartesian Meditations*, translated by Dorion Cairns, The Hague: Nijhoff, 1960).

Hyppolite, Jean, *Figures de la pensée philosophique*, Paris: Presses Universitaires de France, 1971.

Génèse et structure de la Phénoménologie de l'esprit *de Hegel*, Paris: Aubier, 1946.

Irigaray, Luce, *Ce sexe qui n'en est pas un*, Paris: Minuit, 1977 (*This Sex Which Is Not One*, translated by C. Porter with C. Burke, Ithaca, NY: Cornell University Press, 1985).

Le corps-à-corps avec la mère, Montreal: Éditions de la Pleine Lune, 1981.

Éthique de la différence sexuelle, Paris: Minuit, 1984 (*An Ethics of Sexual Difference*, translated by C. Burke and G. Gill, Ithaca, NY: Cornell University Press, 1993).

Sexes et parentés, Paris: Minuit, 1987 (*Sexes and Genealogies*, translated by Gillian Gill, New York: Columbia University Press, 1993).

Speculum de l'autre femme, Paris: Minuit, 1977 (*Speculum of the Other Woman*, translated by Gillian Gill, Ithaca, NY: Cornell University Press, 1985).

Janicaud, Dominique, *Une généalogie du spiritualisme français*, The Hague: Nijhoff, 1969.

La tournant théologique de la phénoménologie française, Combas: L'Éclat, 1991.

Jankélévitch, Vladimir, *Le je-ne-sais-quoi et le presque-rien*, Paris: Seuil, 1980.

"Léon Brunschvicg", in Vladimir Jankélévitch, *Sources*.

Sources, Paris: Seuil, 1984 (first published 1969).

Traité des vertus, Paris: Bordas, 1949. *Henri Bergson*, 3rd edn., Paris: Presses Universitaires de France, 1975.

Judt, Tony, *Past Imperfect: French Intellectuals, 1944–1956*, Berkeley: University of California Press, 1992.

Kaufmann, Walter (ed.), *Existentialism from Dostoevsky to Sartre*, New York: New American Library, 1975.

Kearney, Richard (ed.), *Dialogues with Contemporary Continental Thinkers*, Manchester, UK: Manchester University Press, 1984.

Kitcher, Philip, *Abusing Science: The Case Against Creationism*, Cambridge, MA: MIT Press, 1982.

Kockelmans, J. J., and Kisiel, T. J. (eds.), *Phenomenology and the Natural Sciences*, Evanston, IL: Northwestern University Press, 1970.

Kojève, Alexandre, *Introduction à la lecture de Hegel*, edited by Raymond Queneau, Paris: Gallimard, 1947 (*Introduction to the Reading of Hegel*, translated by James Nichols Jr., New York: Basic Books, 1969).

Kristeva, Julia, *La révolution du langage poétique*, Paris: Seuil, 1974 (*Revolution in Poetic Language*, translated by Margaret Waller, New York: Columbia University Press, 1984).

Samouraïs, Paris: Fayard, 1990 (*The Samurai*, translated by Barbara Bray, New York: Columbia University Press, 1992).

Lacan, Jacques, *Écrits*, Paris: Seuil, 1966 (*Ecrits: A Selection*, translated by Alan Sheridan, New York: Norton, 1977).

Lacey, A. R., *Bergson*, London: Routledge, 1989.

Lachelier, Jules, *Du fondement de l'induction*, 7th edn., Paris: Alcan, 1916 ("The Foundation of Induction", translated by Edward Ballard, in Jules Lachelier, *The Philosophy of Jules Lachelier*).

Études sur le syllogisme, Paris: Alcan, 1907.

Oeuvres, Paris: Alcan, 4th edn., 1902.

The Philosophy of Jules Lachelier, translated by Edward Ballard, The Hague: Martinus Nijhoff, 1960. (Contains translations of "The Foundation of Induction", "Psychology and Metaphysics", "Notes on Pascal's Wager", and some of Lachelier's comments in Lalande's *Vocabulaire*.)

"Rapport sur la personnalité", in *Séances et travaux de l'Académie des sciences morales et politiques*, NS, 54 (1900).

Lacoue-Labarthe, Philippe and Nancy, Jean-Luc, *Absolu littéraire*, Paris: Seuil, 1978 (*The Literary Absolute*, translated by P. Barnard and C. Lester, Albany, NY: State University of New York Press, 1988).

"The Nazi Myth", *Critical Inquiry* 16 (1989–90), 291–312.

Lacroix, Jean, *Maurice Blondel*, Paris: Presses Universitaires de France, 1963.

Ladrière, Jean, *Les limitations internes des formalismes*, Louvain: Nauwelaerts, 1957.

Lalande, A., *Vocabulaire technique et critique de la philosophie*, 15th edn., 1985, Paris: Presses Universitaires de France.

Laruelle, François (ed.), *Textes pour Emmanuel Levinas*, Paris: Jean-Michel Place, 1980.

Le Doeuff, Michèle, *L'étude et le rouet*, Paris: Seuil, 1989 (*Hipparchia's Choice*, translated by Trista Selous, Oxford: Blackwell, 1991).

Identité et réalité, Paris: Alcan, 1908 (*Identity and Reality*, translated by Kate Loewenberg, New York: Macmillan, 1930).

Moi, Toril, *Simone de Beauvoir: The Making of an Intellectual Woman*, Oxford: Blackwell, 1994.

Montefiore, Alan (ed.), *Philosophy in France Today*, Cambridge: Cambridge University Press, 1983.

Moore, F. C. T., *Bergson: Thinking Backwards*, Cambridge: Cambridge University Press, 1996.

Nabert, Jean, *Eléments pour une éthique*, Paris: Presses Universitaires de France, 1943 (*Elements for an Ethic*, translated by William Petrek, Evanston, IL: Northwestern University Press, 1969).

Essai sur le mal, Paris: Presses Universitaires de France, 1955.

L'expérience intérieure de la liberté, Paris: Presses Universitaires de France, 1924 (reissued in an edition edited by Paul Ricoeur, Paris: Presses Universitaires de France, 1994).

Nancy, Jean-Luc, *Communauté désoeuvrée*, Paris: Bourgeois, 1990 (*The Inoperative Community*, translated by P. Connor, et al., Minneapolis, MN: University of Minnesota Press, 1991).

Expérience de la liberté, Paris: Galilée, 1988 (*The Experience of Freedom*, translated by Bridget McDonald, Stanford, CA: Stanford University Press, 1993).

Nizan, Paul, *Aden Arabie*, with a preface by Jean-Paul Sartre, Paris: Maspero, 1960 (*Aden Arabie*, translated by Joan Pinkham, New York: Monthly Review Press, 1968).

Antoine Bloyé, Paris: Grasset, 1971 (*Antoine Bloye*, translated by Edmund Stevens, New York: Monthly Review Press, 1973).

Les chiens de garde, Paris: Maspero, 1960 (*The Watchdogs*, translated by Paul Fittingoff, New York: Monthly Review Press, 1971).

Ott, Hugo, *Martin Heidegger: éléments pour une biographie*, Paris: Payot, 1990 (*Martin Heidegger: A Political Life*, translated from the original German by Allan Blunden, New York: Basic Books, 1993).

Parodi, Dominique, *La philosophie contemporaine en France*, Paris: Alcan, 1919.

En quête d'une philosophie, Paris: Alcan, 1935.

Peperzak, Adriaan, *To the Other*, West Lafayette, IN: Purdue University Press, 1993.

Poincaré, Henri, *The Foundations of Science*, translated by George Bruce Halstead, New York: The Science Press, 1913.

La science et l'hypothèse, Paris: Flammarion, 1900 (English translation in Henri Poincaré, *The Foundations of Science*).

La valeur de la science, Paris: Flammarion, 1914 (English translation in Henri Poincaré, *The Foundations of Science*).

Poster, Mark, *Existential Marxism in Postwar France*, Princeton: Princeton University Press, 1975.

Proust, Marcel, *À la recherche du temps perdu*, Paris: Gallimard, 1954 (*In Search*