

# Karl Popper and the Reconstitution of the Rationalist Left

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Notwithstanding the great 'positivist dispute' of the 1960s, Karl Popper and Theodor Adorno upheld many of the same general philosophical sensibilities, which together distinguish them from the 'postmodern' social theory that has flourished in the wake of their dispute. In particular, both Popper and Adorno upheld a universalist conception of knowledge underwritten by a critical mode of inquiry. These basic tenets constitute what I call the 'rationalist left', in contrast to the post-rationalist, post-leftist epistemic politics of today. Implicit in the common ground shared by Popper and Adorno was an institutional basis for universal criticism, namely, the university. A sign of the distance we have moved from their shared sensibility is the status of the university today as either a pale transcendental idea (Habermas) or a mere physical site for the play of social forces (Lyotard). I attempt to pick up the pieces of the Popper-Adorno dispute in an attempt to 'reconstitute' the rationalist left.

*Keywords:* positivist dispute, critical theory, rationalist left

## **Picking up the Pieces of Popper's Vision**

Karl Popper is an intriguing figure in the history of 20th century thought because he most successfully used a theory of science to launch a full-blown general normative philosophy. The republic of science was designed to provide the blueprint for institutionalising civic republican democracy in society at large

(Jarvie, 2001). My own social epistemology increasingly draws inspiration from Popper's project (Fuller, 2000a: chap. 1; Fuller, 2002: chap. 4). Nevertheless, Popper's own aspirations have generated no end of misunderstanding, from both intended targets and potential allies. To be sure, Popper was always swimming against the current in two senses. First, he was a resolutely dialectical thinker. Most of his supposedly positive views

were really negative ones in disguise: his deductivism was anti-inductivism, his liberalism anti-authoritarianism, his individualism anti-holism. Consequently, Popper often presented his views as critical sketches that presuppose acquaintance with the details and history of what is being criticized. Second, the 20<sup>th</sup> century has accelerated the “outsourcing” of philosophical problems, if not to the special sciences themselves, at least to philosophical sub-disciplines (or sub-philosophical disciplines?) that shadow those sciences. Thus, the readers of Popper who are interested in, say, his falsificationist methodology, his political liberalism, his philosophy of social science, and his evolutionary epistemology tend to fall into four distinct camps – none with an interest in trying to put all the pieces together.

Popper was, of course, not alone in his legacy having suffered from swimming against the current. His great nemesis of the 1960s, Frankfurt School doyen Theodor Adorno, was a similarly dialectical thinker whose high modernist aesthetics, Hegelian epistemology, Marxist sociology, and post-Holocaust ethics have also tended to attract four discrete audiences. Indeed, contrary to the tenor of the so-called *Positivismusstreit* that beset German social theory from 1961 to 1969, Popper and Adorno resembled each other much more than either resembled, respectively, the analytic philosophers of science and the cultural studies practitioners with whom they are superficially associated today. This point suggests just how much the unregulated division of labour in the sciences has undermined the quest for a holistic philosophical vision. Moreover, in the specific

case of Popper and Adorno, the changing political fortunes of Marxism have added to the confusion. The result has been to divide the forces of the rationalist left, thereby opening the door to the rightward anti-rationalist drift that has characterized the so-called “postmodern condition.” My assessment of Popper’s contribution should be understood as part of an attempt to reconstitute this rationalist left, wherein (I believe) lies the fate of the premier autonomous knowledge producing institution, the university, the future governance of which provided the concrete context for the *Positivismusstreit* (Adorno, 1976).

### **Back to Weimar? The Recurrent Philosophical Crisis of Institutionalised Knowledge**

The idea that all philosophy is philosophy of a special science had been born of Neo-Kantian professionalization in the late 19<sup>th</sup> century. Once Kant declared that ultimate reality was unknowable, the door was open to specify the scope of inquiry in terms of human interests (Habermas, 1971). Hegel (in) famously advanced the ultimate unity of human interests. Similarly, and to their credit, the positivists did not accept academic specialization as a reliable indicator of distinct human interests. Not surprisingly, every self-declared positivist – from Comte to Carnap – was an academic *persona non grata*, at least in the university systems of Europe that depended on the illusion that academic bureaucracy recapitulates scientific epistemology. And why was there this dependency? For the most part, specialization had provided academics with what biologists call “protective coloration.”

tion” from an otherwise repressive political environment: One spoke freely only about what one was qualified to speak. The cost of this strategy, however, was that it gave philosophers little incentive to rise above specialist commentary to address comprehensively – if controversially – the ends of knowledge.

The politically correct assumption at the time was that the ends of knowledge were either transcendently presupposed by the sort of inquiry in which one was engaged or explicitly provided by the state. Both were politically safe options because neither invited critical reflection on the social conditions of one’s own knowledge production. At the dawn of the 20<sup>th</sup> century, the distinction was epitomized in Germany, respectively, by the philosopher Heinrich Rickert and the economist Gustav Schmoller (Ringer, 1969). At the dawn of the 21<sup>st</sup> century, European science policy gurus have virtually reproduced the distinction between the transcendental and instrumental orientations in terms of “Mode 1” and “Mode 2” knowledge production (Gibbons *et al.*, 1994). What is missing in both versions of distinction is the idea of an autonomous institution that is oriented toward knowledge but is not beholden to either its resident specialists or external clients. That institution is normally called a *university*. The 20<sup>th</sup> century’s most eloquent defender of academic inquiry, Max Weber, reaffirmed “science as a vocation” in response to the excesses represented by Rickert and Schmoller. Weber, in turn was a formative influence on Popper’s sense of science’s social and epistemic responsibilities.

Even if 2002 appears to be repeating the normative short-sightedness that

had been on display in 1902 (the year of Popper’s birth), it is worth recalling what transpired between this repetition, which made Popper part of one of the philosophical movements explicitly opposed to the Neo-Kantian academic establishment. The signature event was Germany’s defeat in World War I, despite the wholehearted support of its scientific community, which was generally regarded as the world leader. Thus, the 1920s witnessed the revival more general inquiries into the ends of knowledge, often with an eye to avoiding excessively technological conceptions. This concern united the three principal movements that revolted against the Neo-Kantian orthodoxy: logical positivism, the Frankfurt School, and existential phenomenology. The positivists differed from the other two in terms of their relative optimism that normatively desirable ends could be secured for knowledge without a radical rejection of the recent history of science. Whereas in the name of philosophical hygiene, Adorno and Horkheimer (1972) would have us return to a time – somewhere between 1630 (Bacon) and 1830 (Comte) – just before the Enlightenment function of science shaded into an instrumental positivism, and Heidegger would take us all the way back to the pre-Socratics, those associated with logical positivism and its aftermath – Carnap, Popper, Feyerabend, Lakatos, and Kuhn – seemed to believe that science only started to lose its way once applications were allowed to overtake theory development, which coincided with science’s entanglement in the German military-industrial complex in the years leading up to World War I.

This difference in the depth of diagnosis – what Edmund Husserl was call-

ing in the 1930s “the crisis of the European sciences” – led to a variety of solutions to re-specifying the ends of knowledge. Most radically, Heidegger would have us “unthink” the last two-and-a-half millennia of Western thought by pursuing the etymological roots of fundamental philosophical concepts. The Frankfurt School more mercifully advocated an “ideology critique” that would identify the sustaining forces of political economy behind the deformation of the sciences. These were conceptualised as “structural contradictions,” which once revealed could be resolved through some yet-to-be-disclosed political process that, following Marx’s own apocalyptic rhetoric, was sometimes called “revolution” (though not to be confused with any of the revolutions actually declared in the name of Marx). The logical positivists dwelled still closer to the linguistic surface, seeing not so much a contradiction as an *underdetermination* of knowledge claims by the evidence claimed on their behalf. Thus, on the one hand, latter-day followers of the Frankfurt School – say, Herbert Marcuse – might charge contemporary physics with uncritically continuing a discourse from an earlier era when it was free inquiry into the nature of things, even though it was now captive to the military-industrial complex. On the other hand, latter-day followers of logical positivism – say, W.V.O. Quine – would limit their criticism to the fact that any scientific finding might be explained in terms of various alternative frameworks, not simply the one that has come to be historically associated with it for whatever reason, including the ideological ones that the Frankfurt School suspected.

The subsequent histories of main-

stream analytic philosophy of science and the Popperian heresy may be understood in terms of the radically different conclusions they drew from what Quine (1960) called the “underdetermination of theory choice by data.” The mainstream – ranging from Quine to Kuhn – has stressed the role of historical presumption, or what Nelson Goodman (1954) called “entrenchment,” in determining how organized inquiry should proceed. Thus, both Quine and Kuhn believed that science was an inherently conservative process that favours local adjustments to research programs with proven track records – that is, until the adjustments themselves become too ad hoc or contrary to trained intuition. In short, science sticks to its conceptual framework until it self-destructs. From this standpoint, the philosophical urge to question fundamental assumptions is most unscientific. But whereas the analytic orthodoxy increasingly leaned on the “empiricist” side of logical empiricism (as logical positivism came to be known in the United States) to offer guidance to scientific theory choice, the Popperian heterodoxy relied on the sharpening of insight offered by the “logical” side, which in turn stressed the continuity of philosophy and science a form of inquiry. Most strikingly, Popper identified the scientific enterprise with the construction of “crucial experiments” designed to reveal contradictory theoretical assumptions, from which the scientist is then forced to choose. In this context, the past performance of competing research programs is accorded much less weight, mainly because – as both Imre Lakatos and Paul Feyerabend were later to stress – track records are rational reconstructions that selectively

draw from history for self-serving purposes. These histories require at least as much criticism as the scientific theories legitimated by them.

Popper's proactive strategy for challenging dominant scientific theories – including his critical attitude toward the histories that legitimate those theories – was mobilized in aid of rendering science as *game-like* as possible. The full import of this point has been rarely appreciated, mainly because it has not been taken literally, perhaps even by Popper himself. (Popper's most maverick student, Feyerabend, actually took the master's words most literally.) It means that rational decisions about science as a form of inquiry cannot be taken, unless two general conditions are met. First, tests are designed not to be biased toward the dominant theory. This is akin to ensuring that two opposing teams operate on a levelled playing field during a match, regardless of the differences in their prior track records. Second, the tests must not be burdened with concerns about the costs and benefits of their outcomes, especially as these pertain to the political and economic prospects of the scientists or their supporters. Allowing such considerations to influence the course of play would invite the equivalent of match fixing. Once these two conditions of the game-like character of science are met, it becomes clear that the sense of "progress" relevant to science is modelled on improved gamesmanship, as reflected in periodic changes in the game's rules, typically in response to tendencies that have emerged over several test-matches. In short, a game advances if its players' performance expectations rise.

It is easy to see how the gaming meta-

phor would make science continuous with philosophy, which has also become more sophisticated over time without achieving a final goal or even accumulating results. Nevertheless, the metaphor also reveals just how remote this normative ideal of science is from actual scientific practice. In the first place, the track records of competing theories are normally brought to bear in evaluating a scientific experiment, thereby placing a much greater burden on the upstart to produce an outcome that exceeds the expectations of the orthodoxy. Secondly, an anticipated low benefit-to-cost ratio of overturning an established theory may be invoked as grounds for not even allowing an upstart's formal challenge, especially when the relevant experiment would require large public expenditures. Finally, while the norms governing scientific practice have palpably changed over time, these changes have been rarely the result of formal legislation; rather, they have reflected a statistical drift toward imitating the practice of acknowledged winners. The overall effect of these three non-game-like features of science has been to impede any global evaluation of the state of organized inquiry in relation to its putative goals. One is simply encouraged to follow the inertial tendencies of tradition. In this very important respect, science has become "de-philosophized."

From a strict Popperian standpoint, contemporary "Big Science" is a regressive form of organized inquiry. This is *not* to deny that science may succeed as an economic productivity multiplier or, for that matter, a Keynesian job-creation scheme for the surplus of overeducated people. To be sure, science serves several social functions at once, but rarely

all equally well. Indeed, science's success as a source of societal governance and economic growth has been at the expense of its progress as an epistemic institution. At this point, a comparison of the history of science and the history of politics may help to clarify the Popperian normative horizon. If the history of politics has made any cognitive progress at all, it has been by the introduction of periodic elections for fixed terms of office. This institution, associated with the civic republican roots of democracy, forced societies on a regular basis to think about what they have done and what they want to do next, with an explicit invitation to have someone else take them in a different direction. Of course, the citizenry may decide to retain the incumbent, but elections force this decision to be explicitly justified and not simply be allowed to proceed uncritically, as in the case of a royal dynasty. In contrast, as science has acquired more secular power, it has come to resemble just such a dynasty, in which the dominant research programs are pursued by default, which Robert Merton (1973) has dignified as the "principle of cumulative advantage." The great symbol of such regressive science politics is the fixed discipline-based, peer-review structure of the US National Science Foundation, the cognitive function of which can only be disturbed "externally," say, when Congress registers a budget deficit.

It is worth underscoring that, like most historic monarchies, the scientific establishment continues to enjoy widespread public support on most matters. Consequently, it could be claimed that it already represents "the will of the people," and hence requires no further

philosophical schemes for democratisation. At this point, Popper's anti-majoritarian approach to democracy – his civic republican sensibility – comes to the fore. Many authoritarian regimes, especially the 20<sup>th</sup> century fascist and communist ones, could also persuasively claim widespread popular support, at least at the outset and in relation to the available alternatives. For Popper, however, the normative problem posed by these regimes is that their performance is never put to a fair test. In this respect, a disturbing feature of 20<sup>th</sup> century intellectual history is that the dominant figures of the two main European philosophical traditions – Ludwig Wittgenstein and Martin Heidegger – have promoted a conformist vision of social practice that accords exaggerated metaphysical significance to sheer inertia. Moreover, this point is not only anti-Popper but also anti-Adorno, though Popper and Adorno managed to stereotype each other as philosophical agents of conformity. Nevertheless, to the critical turn that both Popper and Adorno urged, Wittgenstein and Heidegger would have said, "If it ain't broke, don't fix it."

### **A Genealogy of the Critical Spirit: From Theology to Science**

One of the most intriguing features of Popper's epistemology, which appears quite early in his career, is the claim that we possess *a priori false beliefs*, the revision and replacement of which provides the need for the systematic pursuit of inquiry, or science. What is striking here is the idea that humanity's special interest in knowledge arises not from the spirit of curiosity but from our having

been born out of sorts with reality. (An excellent account of this sensibility as arising from Popper's training in educational psychology is provided in Hacohen, 2000: chaps. 3-4.) Most epistemologies presuppose more auspicious origins. For example, Descartes and Leibniz believed that our fundamental ideas – and most of our derivative ones – must be true because God created us to be in harmony with the rest of nature, indeed with the capacity to reflect its structure in our minds. As the deity receded from view in the eighteenth century, humanity lost its preordained harmony with nature but not its capacity for thriving in it. Kant granted that we have no special access to the order of nature, but in practice that implied that nature had no order other than that which our minds imposed. Of course, even if indeterminate, nature may provide considerable resistance to our impositions, which then cause us to redouble our efforts. Soon we arrive at Freud's psychic defence mechanisms. But with the development of Darwinism in the twentieth century, a happier vision of humans has returned – one common to both Jean Piaget and E.O. Wilson. It resurrects the old biological doctrine of epigenesis, so that each organism is a repository of multiple (though not indefinitely many) genetic potentials that the environment actualizes to varying degrees. Leibniz would be pleased – but not Popper, whose views were much closer to that great nemesis of Leibniz, Voltaire. In this context, we may say that Popper follows Voltaire in regarding the quest for knowledge as bearing the mark of Original Sin, albeit in a secularised form. Specifically, the price of knowing anything at all is that it will be fallible.

Here Popper continues the Enlightenment tendency to admit a broadly *tabula rasa* conception of the mind, only then to invoke it to dismiss the gullibility of first-hand reports. The controversial Biblical criticism of the period inspired by Pierre Bayle can be understood in this fashion, as well as Hume's equanimity at being an empiricist who nevertheless was sceptical toward inductive proof. Nowadays cognitive psychologists would say that the Enlightenment wits had a very vivid sense of "confirmation bias": *The price of acquiring any knowledge at all is that it will be somehow distorted by the conditions of its acquisition; hence, criticism is the only universally reliable method.* Moreover, criticism was seen as a thoroughly *moral* stance to adopt toward a witness to some past event. For example, whereas Biblical scholars had previously regarded the Apostles' testimony of Christ's Resurrection as simply a statement of fact in which the Apostles' personal histories were epistemically irrelevant, the Enlightenment critics took seriously the Apostles' role in constructing the event as significant – and the long-term epistemic cost that heightened awareness may have incurred, even for those who take the general truth of Christianity as uncontroversial. The history of Biblical criticism, then, was one long exercise in unpacking the universal dimension of Christ's message from its historical baggage. But, as the critiques of Lessing, Kant, Hegel, and Feuerbach made increasingly clear, the very identity of Christ himself may be part of this historical baggage, which continued the historic alienation of human beings from the full realization of their species potential. The logical conclusion of this

line of thought was an open endorsement of humanism, which pitted the academic pursuit of theology against the dogma of the established Christian churches. This conflict reached a head with the requirement of religious loyalty oaths for university appointments – a condition that momentarily excluded the young Karl Marx from an academic life.

However, this turn of events set a precedent that went beyond Biblical criticism. When Wilhelm von Humboldt founded the University of Berlin in 1810 as an institution devoted to the unity of teaching and research, theology was included as an autonomous field of inquiry protected not *by* but *from* church doctrine. Indicative of theology's protected status was its application of the critical method to ideas that, outside the academic context, would be promulgated as part of the pastoral mission of the churches to stabilize the social order. What had not been anticipated was that the churches might be just as much in need of protection from academic criticism as vice versa; hence, the academic exclusion of the likes of Marx. By the end of the 19<sup>th</sup> century, a version of the same problem had begun to haunt science itself, as it started to assume religion's traditional legitimacy role in political and educational arenas. In this context, Ernst Mach extended the critical-historical method from theology and the human sciences into the natural sciences (Fuller, 2000b: chap. 2). His version of "positivism" was largely an application of science's critical outlook to science itself. It demystified the legitimacy pretensions of science promoted by Auguste Comte's original positivism by showing that the spirit of science, no less than that of re-

ligion, is susceptible to captivity by its dominant institutions, or as we would now say, "paradigms." Specifically, contingencies are rewritten as necessities in the official histories of science, as uncertain tradeoffs are presented as clear decisions that presciently anticipated their consequences. Mach's critical-historical remedy was to unearth these forgotten alternatives and their unanswered objections to the dominant trajectories.

Mach's critical-historical impulse has come down to contemporary philosophers of science in a desiccated form as "instrumentalism," the doctrine that theories are important only as summaries of established phenomena that can be used to predict and control other phenomena. The radical implication of this doctrine left unexplored is that the dominant scientific theories are not the only ones that could be used for these purposes, and indeed the theories may not have been themselves instrumental in establishing the phenomena that underwrite their current dominance. In that respect, instrumentalism was meant to be a liberating doctrine. But, as the positive face of the underdetermination thesis noted above, it has suffered a similarly conservative fate. Thus, instrumentalism's reluctance to draw specific theoretical conclusions beyond the phenomena has been read *not* as a studied agnosticism toward all theories – Mach's own view – but rather a bias toward the theories currently most closely associated with the phenomena. (Thus, in reaction, "realism" became the self-appointed guardian of science's progressive tendencies.) It was precisely this conservative reading of instrumentalism that Popper demonised as "inductivism." Moreover, there is evidence that Popper



himself was alive to the theological roots of Mach's critical-historical perspective, which Feyerabend (1979) made explicit in his Luther-like call for the institutional disestablishment of science. In *The Open Society and its Enemies*, Popper (1945: 202-3) acknowledges his debt to Henri Bergson for the phrase "open society," through which Bergson (in his 1932 book, *The Two Sources of Morality and Religion*) captured the periodic phase of spiritual renewal and institutional reformation that he believed marks the history of all religions.

Mach may have failed to stem science's increasing dogmatization in the 20<sup>th</sup> century, what both Bergson and Popper would have recognized as the "closed society" of experts and adepts who engage in what Kuhn would later sanitize as "normal science." Nevertheless, Mach succeeded in instilling the critical spirit in the generation of German-speaking philosophical scientists and scientific philosophers born in the last quarter of the 19<sup>th</sup> century. Here I mean to include Einstein, Heisenberg, Wittgenstein, Carnap, as well as Popper – each of whom, in his own way, saw the need to break out of institutionalised modes of thought. But perhaps the most indelible legacy of Mach's influence on the philosophy of science has been the distinction between the contexts of *discovery* and *justification*. It is here that Popper and the logical positivists revealed their Enlightenment credentials most clearly. Like the Bible, an historical account of a scientist's discovery is an alloy of blindness and insight whose decontamination must precede its evaluation. The logical positivists believed that this decontamination would involve the rewriting of the original ac-

count in symbolic notation that revealed its logical structure. Popper and his followers remained sceptical of this appeal to notation, preferring instead to specify the conditions under which the account would be shown false, regardless of the authority conveyed in its original expression. In either case, these secularisations of the critical-historical method should be seen in sharp contrast with a corresponding secularisation that occurred to the *hermeneutical method*, which had been traditionally used to maximize the coherence of a body of legitimacy knowledge, typically a set of canonical texts and exemplary decisions.

While the critical-historical method flourished in a university environment where knowledge *of* religion was kept separate from knowledge *for* religion, hermeneutics routinely blurred the distinction, given its aim of producing knowledge to justify the decisions taken by civil and ecclesiastical courts (Gadamer, 1975). It would be difficult to overestimate the difference in outlook that resulted from this difference in the context of knowledge production. On the one hand, the critical-historical method continually strove to *disembed* truth from its specific textual and institutional containers so as to make it universally available. In this respect, the Enlightenment took over the proselytising mission of Christianity. On the other hand, the hermeneutical method sought to *embed* truth in traditions of lived experience so as to consolidate the community of believers. The former understood the power of knowledge to lie in the freedom one was afforded from the domination of others, the latter in the relative advantage over others afforded to the possessor of knowledge. In both

cases, the content of knowledge may be the same, but the spirit in which one acquires and disposes of such knowledge could not be more different. Hermeneutics is ultimately backward-looking, seeking reasons for believing what is already believed, whereas critique is forward-looking, seeking reasons not to reach premature closure on belief. As we shall now see, one of the great disappointments of the contemporary period is the failure of Popper and Adorno to see themselves on the same side, as opposed to the epistemological foundationalists in both analytic and continental philosophy.

### **The Rationalist Left Divided Against Itself**

The “rationalist left” is my phrase for the combined forces of critique that in the 1960s came to be officially divided into “critical theory” (Adorno and his Marxist followers) and “critical rationalism” (Popper and his more liberal followers), largely in the wake of the *Positivismusstreit*, which was supposed to be about the methodology appropriate for social science research (Fuller, 2003: chaps. 13-14). But as to be expected from such “world-historic” debates, much more was said about general epistemological attitudes than protocols for sociological research. My account is a reflection of what is reported in Adorno (1976).

After the original exchange at the 1961 meeting of the German Sociological Association, the rapporteur, Ralf Dahrendorf, observed that there was remarkably broad agreement between Popper and Adorno, especially in terms of targeted foes, such as the style of empirical research spawned by structural-

functionalist sociology. Moreover, there was even agreement over the tendency of experimental psychology and theoretical economics to obscure, if not outright deny, the background social conditions that ultimately determine the validity of their generalizations. In short, Dahrendorf found *both* Popper and Adorno to be staunch anti-positivists. What probably made this initial outcome seem so surprising – especially to younger listeners (Dahrendorf himself was only 32 in 1961) – was the vivid opposition between Marxism and liberalism that characterized the Cold War political landscape. Yet, here it is worth recalling the free intercourse between Marxism and liberalism that transpired under the rubric of “social democracy” in the 1920s, the formative period for both Popper and Adorno.

What turned out to be the point of rupture between Popper and Adorno was adumbrated in their manner of expression. But even then, both Popper and Adorno shared the critic’s tendency to presuppose that the audience already knows the target of criticism in some detail, so that one’s own discourse becomes a series of reflections on the hidden opponent. This common feature of their discourse made it frustrating for listeners who sought constructive advice on the conduct of social research. Nevertheless, Popper and Adorno expressed their critiques in radically different forms. Popper provided a list of theses, with which he wanted Adorno to agree or disagree. In response, Adorno, seeing very little with which to disagree in what Popper had said, decided instead to dwell on the care with which one needs to formulate epistemological claims in the human sciences so that they are not

captured by an unreflective and potentially oppressive positivism. In other words, Adorno could be read as criticizing Popper for not being sufficiently “reflective” in considering how his words might be used to legitimise projects to which he (and Adorno) would be opposed. In the second round of the debate, in which Popper and Adorno were themselves replaced by members of the younger generation – Hans Albert and Juergen Habermas – Adorno’s friendly criticism of Popper was magnified into

a major ideological dispute. Habermas especially drove home the idea that Popper’s “straight-talking” approach was politically and intellectually naïve, especially during a period of increasing social unrest. It was after this explicit assertion of the *superiority* of the Frankfurt School’s “dialectical” critique that Popper’s defenders began to demonize Adorno’s followers as irrationalists and totalitarians. Soon thereafter came the dissolution of the rationalist left, in whose aftermath we labour today.

Figure 1. Two modes of critique: Popper and Adorno as enemies

	<b>Adorno</b>	<b>Popper</b>
<b>Aim of inquiry</b>	Reunite Mind and World	Distinguish Mind and World
<b>Test of a proposition</b>	What is omitted by <i>p</i> that could have been said?	Under what conditions can <i>p</i> be falsified?
<b>Nature of truth</b>	Gradually emerges in the whole	Emerges first in a part which informs the whole
<b>State of knowledge</b>	All disciplines are mutually alienated	Some disciplines are more self-conscious than others
<b>Normative function of contradiction</b>	Means to a higher-order synthesis	Means to a decision between alternatives
<b>Value of dialectics</b>	Self-consciousness of presuppositions	Self-consciousness of consequences
<b>Nature of social science</b>	Persuasive definitions that motivate social action	Hypotheses that are testable outside the context of action
<b>Philosophical flaw</b>	Obscurantist tautology: spurious depth	Naive falsificationism: spurious transparency
<b>Political threat</b>	Totalitarianism of the concept	Imperialism of the concept

In figures 1 and 2, I have summarized the points of disagreement and agreement between Adorno and Popper. I regard the disagreements as an “in-house dispute” between heirs to the critical-historical tradition in philosophy who happen to draw on different conceptual and empirical resources to stake their claims. On the other hand, the spirit that animates their common foes is radically opposed to that tradition. I shall now

comment on some of the distinctions drawn in these two figures.

Perhaps the most significant difference between Adorno and Popper is the source of their theories of inquiry, or sense of “logic.” Adorno relies on Hegel, whereas Popper is clearly influenced by Frege (via Carnap and Tarski). Adorno presumes that we start with a false sense of connectedness to reality (via empiricism), which gives us a limited sense of

*Figure 2. My enemy's enemy is my friend: Popper and Adorno as allies*

### **Their common enemy**

*Language therapy:* Philosophy interrogated by common sense

The Neo-Kantian disunity of science thesis, and the “underlaboring” approach to philosophy promoted by it

The logical positivist asymmetry of facts (cognitive) and values (non-cognitive)

The Mannheimian restriction of the socio-historical conditioning of knowledge to the social sciences, since the natural sciences are universal

Sharp division of labour between philosophy and sociology (i.e. rational versus irrational)

Philosophy degree zero: The positionless “jargon of authenticity” (Heidegger) or “neutral observation language” (Carnap)

*Psycho-social essentialism:* Society is the sum of its atomic individuals *or* individual is the sum of social roles

### **Their common agreement**

*Enlightenment critique:* Philosophy interrogates common sense

Disciplinary boundaries are not epistemically significant; rather they inhibit an independent critical judgement on the state of knowledge

Neither facts nor values can ever be epistemically justified though both may be vindicated in their consequences

Categories of the natural sciences are no ‘closer’ to reality than those of the social sciences; both involve choices that should be evaluated against their consequences

The relationship between philosophy and sociology is more like mind versus body (i.e. form versus matter)

Philosophy emerges dialectically against the dominant discourses of the day

*Anti-essentialism:* The potential of individuals is realized in a social world that is defined by countervailing tendencies

how the world can be. In other words, we know some things only at the expense of others. Thus, the aim of inquiry becomes first to show that our empirical understanding of reality is spurious (via criticism) and then to establish a normatively acceptable understanding. However, how exactly one reaches that final stage is left radically unclear. For his part, Popper also presumes that we start with a false sense of connectedness, but it is expressed more through untested knowledge claims than unexamined experiences. Thus, in the context of testing knowledge claims, one comes to realize the extent to which our words (or concepts) distort our understanding of reality. Yet, the continual recognition of this difference, through iterations of the critical turn toward our claims, is the closest ever Popper comes to realizing an aim for inquiry. Nevertheless, while neither Adorno nor Popper provides an especially satisfactory overall vision of inquiry for the social researcher, Popper is more sanguine than Adorno about the precedent set by the success of the physical sciences. However, Popper operates with a rather sophisticated and somewhat idealized understanding of scientific method that, for example, refuses to see empirical regularities as necessarily indicative of scientific laws, if they have not been first subjected to rigorous experimental tests.

To be sure, Adorno understood this feature of Popper's view, but (rightly, I believe) equally saw that it could be easily misunderstood as endorsing a mindlessly positivist conversion of regularities to laws. Here one could imagine Adorno asking Popper: "If your view of physics as the vanguard of inquiry applies only under ideal experimental con-

ditions – which hardly ever obtain in the social sciences – then what good is it as a normative standard?" But Popper could respond with his own probing query about the wisdom of Adorno's stress on the "reflexive" dimension of social science, especially that one should assert only that which one believes will do less harm than good. From Popper's (again, equally valid) standpoint, Adorno seemed to be guilty of letting his reluctance to defend autonomous institutions of free inquiry influence his views about what is appropriate to be said. In other words, in the guise of reflexivity, Adorno allowed a dialectical point to mask his political pessimism, which only served to lay the groundwork for an esoteric elitism.

Not surprisingly, Adorno and Popper captured each other's weak points beautifully but failed to address their own. For the many social and natural scientists that found in Popper a source of legitimation, he was regarded as an accessible positivist who could be used to justify what Kuhn called "normal science." This was simply because Popper forcefully articulated the ideal to which many scientists aspired without openly criticizing their failure to meet it in their practice. This discrepancy eventually opened the door to the "social studies of science," whose scandalous reputation lies precisely in revealing the myriad ways in which scientists' words and deeds are at odds with each other. Unfortunately, most science studies practitioners respond to their discovery by suggesting that Popper-style normative discourse be junked altogether in favour of modes of legitimation that enable the scientists to carry on with their day-to-day business with the least resistance. As

for Adorno, his progeny in cultural studies have tended to fixate on his defence of “difficult writing” as a form of reflexive resistance against hegemonic ideological structures that might co-opt the words of authoritative academics for their own purposes (as arguably happened in Popper’s case). However, in practice, Adorno’s strategy has led to a dissipation of the critical impulse, as the criticized hegemon often have not recognized themselves in the criticism – let alone understood the criticism sufficiently to feel motivated to respond to it.

The irony of Adorno’s and Popper’s fate can be seen by observing their points of agreement. In particular, both

Adorno and Popper regarded philosophy and sociology as mutually reinforcing, not antagonistic, disciplines. In other words, one cannot adequately theorize about the aims and norms of inquiry without considering the institutional frameworks in which they might be realized. For this reason, I have found both Adorno and Popper worthy progenitors of my own project of social epistemology. Nevertheless, neither really engaged with the policy issues that emerge from this union of philosophy and sociology, especially as they pertain to the university as an institution whose critical character rests on ensuring that the mode of knowledge production in society does not simply imitate the

*Figure 3. The post-critical non-dispute of postmodernity*

	<b>Adorno + Popper</b>	<b>Habermas</b>	<b>Lyotard</b>
<b>Image of society</b>	Multiple conflicting factors constraining collocated individuals	Maximum tolerable individual differences within common ideals	More or less transient associations of individuals
<b>Course of inquiry</b>	Difference confrontation and resolution	Difference resolution by pre-empting confrontation	Difference proliferation without expecting resolution
<b>Attitude toward inquiry</b>	Critical (How it might be, but is not)	Transcendental (How it must be – even if it is not?)	Empirical (How it is – but as it should be?)
<b>Role of academic disciplines</b>	Disciplines interrogate each other	Disciplines contribute parts to the whole	Disciplines pursue divergent interests
<b>Social role of the university</b>	Social space where disciplinary differences are faced and resolved	Regulative ideal toward which disciplinary interests converge by their own means	Physical site for the pursuit of diverse interests but conceptually inert

mode of biological reproduction. If one had to identify a minimal social precondition for the sort of critical inquiry co-championed by Adorno and Popper, this would be it, as it provides a safeguard against the simple intergenerational transmission of lore and offices along family lines. In its long history, the university has relied on a wide variety of policies for injecting a critical perspective into the knowledge system, ranging from formal examinations to affirmative action legislation. Generally speaking, these policies have made it easier for people from socially and intellectually marginal perspectives to challenge dominant groups and beliefs. Perhaps these challenges have not come strong or fast enough, but the university is unique in the consistency with which it has provided them over the last millennium (Fuller, 2003: chap. 12).

Intellectual life has paid a heavy toll from the failure of the two great modern exponents of the rationalist left to offer a new legitimation for the university when it was needed in the 1960s. As a result, we currently live in a polarized epistemic universe defined by Habermas (the only person who materially benefited from the *Positivismusstreit*) and Jean-Francois Lyotard, whose famous *The Postmodern Condition* was widely read as sounding the death knell of the university as a unified and monopolistic site for knowledge production. (Lyotard [1983] was written shortly after the creation of several “new universities” in France that served to dissipate academic power in the name of “democratization.”) In figure 3, I portray our “post-critical” condition. It is one in which what Kant originally called “the conflict of the faculties” no longer seems to have a place, as the university has

been reduced to either a pure transcendental idea unrelated to any actual institutional manifestation (Habermas) or a pure physical space in which various unrelated knowledge-based activities are transacted (Lyotard). The clearest sign of our “post-criticality” is the increasing tendency to sever matters of research from those of teaching, so that the production of new knowledge is increasingly placed in more elite hands (through intellectual property legislation), while the curriculum is narrowly focused on putative job skills. The idea of “general education” as a crucible for the incorporation of new knowledge into a curriculum that would equip all students for critically facing the future is fading into the distant past. The time is ripe for the remaining forces of the rationalist left to consolidate around a renewed justification for the university, so that the institutional framework needed for the free pursuit of critical inquiry may be assured.

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## References

- Adorno, T., ed.  
1976 *Positivist Dispute in German Sociology*.  
London: Heinemann.
- Adorno, T. & Horkheimer, M.  
1972 *The Dialectic of Enlightenment*. New  
York: Continuum.

- Feyerabend, P.  
1979 *Science in a Free Society*. London: New Left Books.
- Fuller, S.  
2000a *The Governance of Science: Ideology and the Future of the Open Society*. Milton Keynes: Open University Press.
- 2000b *Thomas Kuhn: A Philosophical History for Our Times*. Chicago: University of Chicago Press.
- 2002 *Knowledge Management Foundations*. Woburn MA: Butterworth-Heinemann.
- 2003 *Kuhn versus Popper: The Struggle for the Soul of Science*. London: Iconbooks.
- Gadamer, H.-G.  
1975 *Truth and Method*. New York: Seabury Press.
- Gibbons M. et al.,  
1994 *The New Production of Knowledge*. London: Sage.
- Goodman, N.  
1954 *Fact, Fiction, and Forecast*. Cambridge MA: Harvard University Press.
- Habermas, J.  
1971 *Knowledge and Human Interests*. Boston: Beacon Press.
- Hacohen, M.  
2000 *Karl Popper – The Formative Years, 1902-1945*. Cambridge UK: Cambridge University Press.
- Jarvie, I.  
2001 *The Republic of Science: The Emergence of Popper's Social View of Science, 1935-1945*. Amsterdam: Rodopi.
- Liotard, J.-F.  
1983 *The Postmodern Condition*. Minneapolis: University of Minnesota Press.
- Merton, R.  
1973 *The Sociology of Science*. Chicago: University of Chicago Press.
- Popper, K.  
1945 *The Open Society and Its Enemies*. London: Routledge & Kegan Paul.
- Quine, W.V.O.  
1960 *Word and Object*. Cambridge MA: MIT Press.
- Ringer, F.  
1969 *The Decline of the German Mandarins*. Cambridge MA: Harvard University Press.
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