

# The Political and the Epistemic in the Twentieth Century: Historical Perspectives

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**I**N 1934, THE FRENCH PHILOSOPHER and historian of science Gaston Bachelard argued that “objectivity cannot be separated from the social aspects of proof.”<sup>1</sup> With his socialized perspective on scientific knowledge, Bachelard, along with many others during this period, questioned the idea of a linear progression toward universal truths and highlighted the conventional nature of objectivity. By shifting the focus to the intersubjectivity and social practice of knowledge production, epistemology converged with social theories. Moreover, epistemological considerations gained a new, specifically political, dimension that did not conflate with the notorious relationship between knowledge and power or the long-standing historical entanglements between science and politics. When, in the first half of the twentieth century, modern epistemology began to consider scientific knowledge as an outcome of social interactions, negotiations, controversies, critique, agreements, values, norms, ruptures, and even revolutions, it forced a reevaluation of that knowledge through the lens of the political. This new perspective was not limited to a mere understanding of the exchange between scientific

research and its societal environment or of the mundane “external” interests that entered into scientific research;<sup>2</sup> it was aimed at a deeper level—how science itself works as a contested social practice. The new epistemologies thus hinted not only at different political conceptions of the social condition of knowledge but also at political theories aimed at specifying the role of knowledge in society.<sup>3</sup>

Recent works in political theory emphasize the distinction between a narrower understanding of politics as a set of institutionalized procedures and conventions—including political parties, governmental institutions, and elections—that organize and pacify the contest of power within a polity and a wider notion of “the political,” which highlights a broader field of “agonistic” social interactions, which means the conflicting interests that constitute the public in the first place and provide the shifting ground on which naturalized conventional politics are able to take hold.<sup>4</sup> From that point of view, the social theories of knowledge that emerged in the first half of the twentieth century reveal the intrinsically political dimensions of scientific reasoning.<sup>5</sup> Especially with the development of relativity theory and quantum physics, science as such could no longer depend on the philosophical underpinnings of universal naturalism as it had before: the notion of a self-contained natural world lost its appeal, as well as its power to stand as the ultimate nonpartisan judge in scientific disputes. Even experimentation, the stronghold of modern scientific inquiry into the natural, turned out to be based on reified theory, materialized human perception, and expectations conditioned on and by social interactions.<sup>6</sup> By jostling its own ontological foundations, scientific reasoning increasingly revealed itself as a rather mundane heterogenous landscape of conflicting “styles of thought,”<sup>7</sup> socially rooted “paradigms” (and other forms of intellectual hegemony), and situated struggles over the theories, models, experiments, instruments, and materials to be used in scientific practice. In those struggles, the boundaries of science were demarcated to the nonscientific, culture, politics, and

pseudoscience.<sup>8</sup> This politicized understanding of scientific inquiry shaped a new social epistemology that emerged at the beginning of the twentieth century, in response to an era of political revolutions, industrialized warfare mobilizing techno-scientific knowledge, and deep societal transformation. Conversely, social epistemology also provided a valuable point of reference for political theorists as they struggled with the intellectual consequences of World War I, in particular. The heated disputes over the political and economic foundations of society and the role of knowledge in society and the economy thus were interrelated.

Since the interwar period, French social epistemologists such as Bachelard, early neoliberals and related thinkers such as Karl Popper and Michael Polanyi, pragmatists such as John Dewey, and sociologists such as Robert K. Merton (and his normativist approaches to scientific values) continued to radically rearrange the relationship between “the epistemic” and “the political” on an antifoundationalist basis. In all of these variations, notions of the political informed perceptions of the epistemic and vice versa in an attempt to mutually restabilize not only these spheres but also the shaken foundations of modern society. The ways in which the relationship between the epistemic and the political were interpreted, however, varied widely, giving birth—especially after World War II—to a vast interdisciplinary field of research on the relationships between science, knowledge, politics, and policy.

More recent historical studies on the relationship between the epistemic and the political have mostly focused on the narrower interplay between scientific knowledge and the modern state as a condensed locus of political power, including the role of experts and advisors in policy making and governance within broader structures of the “scientization of the social” that emerged in the nineteenth century.<sup>9</sup> On the flip side, historians have also analyzed the impact of the modern state on scientific institutions, theories, practices,

and projects from early biopolitics to planned economies, from democratic to totalitarian regimes, from big science to big data.<sup>10</sup> Borrowing from Foucauldian discourse analysis, others depart from the constitutive interrelationship between knowledge and power in order to reconstruct the historical genealogies of epistemic regimes that shape the conditions of possibility for scientific inquiry as well as public discourse, political life, state agency, and, ultimately, governmentality.<sup>11</sup> Since the 1970s and 1980s, feminist, postcolonial, and environmentalist approaches, including within science and technology studies, have decentered hegemonic knowledge regimes by focusing on the role of marginalized forms of knowledge beyond established scientific and political institutions and by emphasizing the sociopolitical situatedness of all knowledge claims.<sup>12</sup> These approaches have heightened awareness for the difference between the plural, heterotopic, and contested field of the epistemic and those privileged institutions and enterprises of knowledge production such as the sciences that become hegemonic in certain historical contexts. Moreover, recent historical studies address the variety of nongovernmental epistemic actors, including think tanks and individual initiatives, engaged in power plays with state institutions and the media since the 1970s.<sup>13</sup> It comes as no surprise that, in that same period of the 1970s and 1980s, political theorists also grappled with a more decentered line of thinking: thinkers such as Jean-Luc Nancy, Jacques Rancière, Ernesto Laclau, and Chantal Mouffe argued for an antifoundationalist understanding of the political beyond institutionalized frameworks.<sup>14</sup> The distinction they make between politics and *the political* parallels the distinction between institutionalized forms of knowledge such as science and what we propose to call *the epistemic*: the both nonfoundational and agonistic conditions in which knowledge emerges in an ever-changing multitude of forms and social contexts.

By bringing together the theoretical debates on social epistemology and *the political*, the scope of historical research simultaneously

broadens and deepens, by going beyond a mere analysis of the entanglements of seemingly preexisting separate spheres such as science and politics or science and the state. In a Latourian move, it instead departs from the underlying question of how these spheres were construed and demarcated as separate entities. Other than Latour, however, an interest in the emergence of *the epistemic* within *the political* goes beyond determining the participants in a “parliament of things.”<sup>15</sup> Instead, it implies a focus on the epistemic not as a merely deliberative space but as an arena of contesting and conflicting knowledge claims. What social practices, institutions, values, and representations form part of the realm of *the political* respective to *the epistemic*, and which do not in certain historical contexts? How does the epistemic constitution of the political as well as the political constitution of the epistemic change over time and across different geographical areas? *The political* can thus be traced in the interactions and debates between different actors and claims of knowledge involved in defining the realm of the political, such as social scientists, economists, politicians, citizens, and civil rights movements.<sup>16</sup> The historically shifting scope of the political relies on contested fields and foundations of knowledge. Jacques Rancière coined the term “disagreement” for the entanglement of understanding and nonunderstanding in what makes social interactions a political sphere.<sup>17</sup> Whereas Rancière repeatedly pointed to the aesthetic dimensions of disagreement, a focus on its epistemic dimensions—the both antifoundational and antagonistic status of knowledge as part of the emergence of *the political*—is equally important.

Inasmuch as *the political* is understood as a space of (dis)agreement, shifting not only in concert with the different actors that engage in it but also with the different epistemic practices, concepts, methods, and theories in which it is shaped, *the epistemic* cannot be separated from the political sphere since it is, in ways of both practice and theory, involved in creating the space of *the political*, and vice versa.<sup>18</sup> A

perspective on instances of knowledge in *the political* (as a realm of controversies) thus teaches us to consider the coproduction of knowledge and the political within its competing, antagonistic, and discriminatory relationships. The distinctions between science, knowledge, and the realm of the political are thus not imbued with a clear-cut dividing line; instead, the relationship is characterized by ongoing and contested boundary work performed by various actors with different resources, strategies, intentions, and interests. Which strategies and practices allow for the presentation of a certain kind of knowledge as neutral, objective, and “unpolitical”? And, conversely, why is dissenting knowledge often understood as politically biased? Knowledge involves a political dimension insofar as it can be situated in the controversial interactions and struggles surrounding the epistemic foundations within which it emerges.

Examining the political dimension of knowledge thus implies an empirical engagement with the controversies and frictions involved in the emergence and implementation of knowledge regimes and an analysis of the conditions under which different epistemologies and knowledge claims compete: What are the resources, networks, and institutional affiliations that competing epistemologies rely on? What are the practices and strategies of gaining relevance, attention, or influence in the scientific realm, in the political world, or on a broader social level? Which discriminatory effects are caused by specific epistemic agendas? A history-of-knowledge perspective can add to our understanding of the changing and contested history of the distinction between knowledge and the political. It can make us aware that this demarcation is part of a history of epistemic practices and strategies in which both the realms of knowledge and of the political take shape. By analyzing histories of antagonistic and competitive forms of knowledge, it becomes possible to paint a more detailed picture of not only the relations between *the epistemic* and *the political* but

also of the inherently political strategies involved in the boundary work of knowledge regimes.

In this special issue we are interested in the reconfiguration of the *political* and the *epistemic* since the interwar period and especially after World War II.<sup>19</sup> In a series of case studies, we look at different sites and actors in which this broader process is situated, from early “think tanks” and public debates to expert commissions and international organizations. The articles focus in particular on knowledge from the social sciences in the political sphere, including sociological and epistemological knowledge, economic knowledge, and political science.<sup>20</sup> The case studies reflect two main axes across which the relationship between *the epistemic* and *the political* was shaped during this period: first, the definition of both what ought to be the object of political deliberation within institutionalized politics or “civil society” and what ought to be the object of technocratic governance decisions based on scientific knowledge and expert commissions (and was therefore withdrawn from *the political*); second, the debate between the two models of economic life in modern society—namely, the ideal type of a centrally planned state-centered society based on aggregated technocratic knowledge and the ideal type of liberal society in which knowledge is produced and distributed according to a decentralized market-based model. According to Martin Beddeleem, early “neoliberal” thought emerged out of the controversies surrounding precisely this latter dichotomy in the 1930s. In his article, he argues that intellectuals active in private institutions—“think tanks” *avant la lettre*—such as the Mont-Pèlerin Society were inspired by the sociological understanding of scientific practice developed by Michael Polanyi and others. Since the 1930s, scholars were no longer able to build on the naturalist certainties of nineteenth-century liberalism, and thus this new way of thinking provided an authoritative model with which to rethink the design of a “free society” as an antidote to centralized

state-planned economies. Ultimately, the crisis of liberalism after World War I was a crisis not only of political legitimacy but also of liberalism's underlying philosophical assumptions about the nature of man, state, commerce, science, common sense, and society. Instead of departing from God-given rules or an axiomatic natural philosophy, social epistemology understood the production of knowledge as an open-ended, contested practice based on social interactions, negotiations, man-made conventions, and historically established forms of dispute resolution, of settling (dis)agreements. This approach also seemed to allow for an antifoundationalist view on *the epistemic* as well as on *the political*, providing a strategy for arguing for the "freedom" of science in the framework of deliberative politics.

Benno Nietzel's study on propaganda strategy expertise moves the focus toward a consideration of the role of political knowledge in arming nation-states during World War II. His article demonstrates how knowledge on popular opinion deployed by state intelligence agencies traveled between peacetime civil politics and the antagonistic field of the political in the context of a military conflict. By highlighting not only the embeddedness of civil politics in the political but also the efforts of civilian experts to stand out and distinguish themselves in military contexts, Nietzel points to the rising relevance of social science expertise in the politics of the Cold War.

Zoé Kergomard's article on debates surrounding voter abstention in Switzerland in the second half of the twentieth century illustrates how expert knowledge produced by political scientists played a crucial role in demarcating the political within the field of legitimate politics. After World War II, decreasing voter turnout was interpreted as popular fatigue and a retreat from politics. The new social movements emerging in the 1960s and 1970s, however, strengthened a consciousness for the political outside of "politics." By shifting the epistemic constitution of the political through activist knowledge, voter abstention could subsequently be interpreted as the exact opposite of depoliticization and



“postdemocracy”—namely, a repoliticization of what had been depoliticized in the name of institutionalized politics.

In their article, Eric Hounshell and Verena Halmshayer reconstruct the public debate between leading economists of the 1960s and 1970s on questions of economic growth policies, state intervention, and consumerism. Their article illustrates that the basic methodological question of how to practice economics determines whether the economy is perceived either as a realm governed by quantifiable laws from which state policies can be developed or as an object of *the political* and thus a social space open to interpretation, controversy, negotiation, objection, and conflict. The public debate between John K. Galbraith, Robert M. Solow, and Robin Marris shows how expertise and counterexpertise competed for influence in a deliberative mode of the political and how their debate on economic methodologies participated in redefining and reconfiguring the sphere of the political itself.

In his article, Pascal Germann analyzes the history of quality of life research and policy since the 1970s. The shift from economic growth to quality of life as the primary goal of politics, promoted by international organizations such as the Organization for Economic Cooperation and Development, also required an epistemic reconfiguration of the political. In the aftermath of the social movements of the 1960s and 1970s, the focus on “objective” macroeconomic indicators such as gross domestic product growth was challenged by the demand for social indicators that also acknowledged the “subjective” dimension of well-being in economic development. From this angle, the knowledge and perception of individual citizens and social collectives became an asset for political negotiations among different institutional players.

Picking up on the question of good government, Felix Römer analyzes the changing knowledge regimes on economic inequality in the United Kingdom, from the postwar welfare state to Thatcherism. He focuses on statistics as a site of the coproduction of knowledge and

politics, triggering debates among diverse actors from governmental and party-political players to nongovernmental associations, academics, and the public. The actual interactions between those players reveal that a space for *the political* opens up precisely within the processes of making and using inequality knowledge as part of creating or withdrawing welfare policies.

The empirical case studies in this special issue highlight the emergence of *the political* as part of epistemic processes in the twentieth century: they demonstrate not only that knowledge plays a role in twentieth-century political regimes but that, alongside the political debates, the foundations of knowledge—its methodological, institutional, and conceptual frameworks—were also at stake. Embracing an antifoundationalist understanding of knowledge, the emergence of *the political* is thus connected to controversies, negotiations, and reconfigurations regarding *the epistemic*, and vice versa. The history of the twentieth and twenty-first centuries provides a multiplicity of stories that invite us to take a closer look at the shifts, frictions, and resonances of *the political* and *the epistemic* and which also lead us to the epistemic as much as political challenges of the present, including issues such as dealing with “fake news,” digitalization, or the contested role of expertise in debates on climate change or pandemics.

## Notes

1. Gaston Bachelard, *The New Scientific Spirit* (1934; repr., Boston: Beacon, 1984), 12.
2. See, e.g., the notion of “political epistemology,” the subject of a workshop series at the Max Planck Institute for the History of Science in Berlin in 2016/17: “The term ‘political epistemology’ highlights the role that social and normative conditions—political, economic, cultural—play in knowledge production and exchange.” “Political Epistemologies,” workshop description, Max Planck Institute for the History of Science, <http://www.mpiwg-berlin.mpg.de/page/political-epistemology>.
3. Gary Werskey, *The Visible College: The Collective Biography of British Scientific Socialists of the 1930s* (New York: Holt, Rinehardt & Winston, 1978); Hans-Jörg Rheinberger, *On Historicizing Epistemology: An Essay* (Stanford, CA: Stanford University Press, 2010); Mary Jo Nye, *Michael Polanyi and His Generation: Origins of the Social Construction of Science* (Chicago: University of Chicago Press, 2011); Johannes Fehr, “. . . The art of shaping a democratic reality and being directed by it . . .”—Philosophy of Science in Turbulent Times,” *Studies in East European Thought* 64 (2012): 81–89; Michael Hagner, “Perception, Knowledge and Freedom in the Age of Extremes: On the Historical Epistemology of Ludwig Fleck and Michael Polanyi,” *Studies in East European Thought* 64 (2012): 107–20; Martin Beddeleem, “Recoding Liberalism: Philosophy and Sociology of Science against Planning,” in *Nine Lives of Neoliberalism*, ed. Dieter Plehwe, Quinn Slobodian, and Philip Mirowski (London: Verso, 2020).
4. “Agonistic” is a term used in recent political theory that underscores the importance of conflict as the driving force of political processes in general and especially in pluralist democracies. This approach differs from liberal models of deliberation that depart from a teleology of conflict resolution as well as from

antagonistic models of politics based on irreconcilable friend-foe distinctions in the tradition of Carl Schmitt. Because of this agonist perspective, conflicts are ongoing and not necessarily solvable. They are, however, based on a certain mutual recognition of the actors and interests involved as legitimate participants in the arena of the political. See, e.g., Chantal Mouffe, *On the Political* (London: Routledge, 2005); Oliver Marchart, *Post-foundational Political Thought: Political Difference in Nancy, Lefort, Badiou and Laclau* (Edinburgh: Edinburgh University Press, 2007). See also the review of Marchart's book by James Martin in *Contemporary Political Theory* 8 (2009): 113–15.

5. Bruno Latour, "Visualisation and Cognition: Drawing Things Together," *Knowledge and Society: Studies in the Sociology of Culture Past and Present* 6 (1986): 1–40, at 13.

6. Gaston Bachelard, *The Formation of the Scientific Mind: A Contribution to a Psychoanalysis of Objective Knowledge*, trans. Mary McAllester (orig. 1938; Manchester: Clinamen, 2002), 239.

7. Ludwik Fleck, *Genesis and Development of a Scientific Fact* (1935; Chicago: University of Chicago Press, 1979).

8. Thomas F. Gieryn, "Boundary-Work and the Demarcation of Science from Non-science: Strains and Interests in Professional Ideologies of Scientists," *American Sociological Review* 48, no. 6 (1983): 781–95. See also, e.g., Michael D. Gordin, *The Pseudoscience Wars: Immanuel Velikovsky and the Birth of the Modern Fringe* (Chicago: University of Chicago Press, 2012).

9. Lutz Raphael, "Die Verwissenschaftlichung des Sozialen als methodische und konzeptionelle Herausforderung für eine Sozialgeschichte des 20. Jahrhunderts," *Geschichte und Gesellschaft* 22 (1996): 165–93. See, e.g., Mark Solovey, *Shaky Foundations: The Politics-Patronage-Social Science Nexus in Cold War America* (New Brunswick, NJ: Rutgers University Press, 2013).

10. The literature on these topics is vast; see, e.g., Peter Galison, *Big Science: The Growth of Large-Scale Research* (Stanford, CA: Stanford University Press, 1992); Alain Desrosières, *The Politics of Large Numbers: A History of Statistical Reasoning* (Cambridge, MA: Harvard University Press, 1998); Mark Solovey and Hamilton Cravens, eds., *Cold War Social Science: Knowledge Production, Liberal Democracy, and Human Nature* (New York: Palgrave Macmillan, 2012); Loren R. Graham, *Lysenko's Ghost: Epigenetics and Russia* (Cambridge, MA: Harvard University Press, 2016); Devin Pendas, Mark Roseman, and Richard F. Wetzell, eds., *Beyond the Racial State: Rethinking Nazi Germany* (Cambridge: Cambridge University Press, 2017).

11. Foucault's work on the order of things as well as on the history of sexuality, the clinic, and architectures of punishment has been influential in this regard, as are his lectures at the Collège de France on governmentality.

12. See, e.g., Donna Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective," *Feminist Studies* 14, no. 3 (1988): 575–99; Kapil Raj, *Relocating Modern Science: Circulation and the Construction of Scientific Knowledge in South Asia and Europe, 1650–1900* (Basingstoke: Palgrave Macmillan, 2007); Bruno Latour, *Facing Gaia: Eight Lectures on the New Climatic Regime* (Cambridge: Polity, 2017). See also Miranda Fricker, *Epistemic Injustice: Power and the Ethics of Knowing* (Oxford: Oxford University Press, 2007).

13. See, e.g., Naomi Oreskes and Eric Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (New York: Bloomsbury, 2010); Thomas Medvetz, *Think Tanks in America* (Chicago: University of Chicago Press, 2012). For perspectives on "counter-knowledge" in the 1970s and 1980s, see Max Stadler, Nils Güttler, Niki Rhyner, et al., *Gegen|Wissen (= cache 01)* (Zurich: intercom, 2020).

14. Mouffe, *On the Political*; Marchart, *Post-foundational Political Thought*.

15. Bruno Latour, *Politics of Nature: How to Bring the Sciences into Democracy* (Cambridge, MA: Harvard University Press, 2004).

16. See, e.g., Kijan Espahangizi, "Migration Research and Epistemic Participation: A Case Study on the 'Sociology of Foreign Workers' in Zurich in the 1970s," in *Urban Citizenship: Democratizing Democracy*, ed. Katharina Morawek and Martin Krenn (Vienna: VfmK, 2017), 112–31, and "The 'Sociologic' of Postmigration: A Study in the Early History of Social Research on Migration and Integration in Switzerland, 1960–73," in *Switzerland and Migration: Historical and Current Perspectives on a Changing Landscape*, ed. Barbara Lüthi and Damir Skenderovic (Basingstoke: Palgrave Macmillan, 2019), 33–59.

17. Jacques Rancière, *Disagreement: Politics and Philosophy* (Minneapolis: University of Minnesota Press, 1999).

18. Studies such as Audra Wolfe, *Freedom's Laboratory: The Cold War Struggle for the Soul of Science* (Baltimore: Johns Hopkins University Press, 2018); George Reisch, *How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic* (Cambridge: Cambridge University Press, 2005); and Nye, *Michael Polanyi and His Generation* present remarkable examples of the mutual reconfiguration of the political and the epistemic in the twentieth century. For epistemology in relation to politics in the 1970s and 1980s, see also Max Stadler and Monika Wulz, "Neben Feyerabend: Wissenschaftsforschung neokonservativ," in *Nach*

*Feierabend: Zürcher Jahrbuch für Wissensgeschichte* 15 (Zurich: Diaphanes, 2020); and for accounts regarding more recent debates, see Gil Eyal, *The Crisis of Expertise* (Cambridge: Polity, 2019); Naomi Oreskes, *Why Trust Science?* (Princeton, NJ: Princeton University Press, 2019).

19. The idea for this special issue began at a conference, “Political Culture and the History of Knowledge: Actors, Institutions, Practices,” in June 2019 in Washington, DC, co-organized by Simone Lässig and Kerstin von der Krone (German Historical Institute, Washington, DC), Shadi Bartsch-Zimmer (Stefanovich Institute on the Formation of Knowledge at the University of Chicago), and Monika Wulz, Nils Güttler, and Kijan Espahangizi (Center “History of Knowledge” at the ETH Zurich and University of Zurich). For the conference report, see <http://www.ghi-dc.org/events/event/date/political-culture-and-the-history-of-knowledge-actors-institutions-practices-06-06-2019>. We would like to thank Shadi Bartsch-Zimmer and Jodi Haraldson, lead editor and managing editor of *KNOW*, respectively, for their support with this special issue in the challenging times sparked by the COVID-19 pandemic, as well as Julia Sittmann for her support in copyediting the texts.

20. Of course, other fields are also very relevant for studying the relationship between the political and the epistemic—such as legal studies (Monika Dommann, Kijan Espahangizi, and Svenja Goltermann, eds., “Wissen was Recht ist,” in *Nach Feierabend: Zürcher Jahrbuch für Wissensgeschichte* 11 [Zurich: Diaphanes, 2015]), technology studies, and aesthetics, as one can see in the previously mentioned work of Jacques Rancière, for example.