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The Trials of Arnošt K.: The Dark Angel of Dialectical Materialism

ABSTRACT

The Prague-born philosopher and historian of science Arnošt Kolman (1892–1979)—who often published under his Russian name Ernest Kol'man—has fallen into obscurity, much like dialectical materialism, the philosophy of science he represented. From modest Czech-Jewish origins, Kolman seized opportunities posed by the advent of the Bolshevik Revolution to advance to the highest levels of polemical Stalinist philosophy, returned to Prague as an activist laying the groundwork for the Communist coup in Czechoslovakia in February 1948, was arrested and held for three years by the Soviet secret police, returned to work in Moscow and Prague as a historian of science, played vastly contrasting roles in the Luzin Affair of the 1930s and the rehabilitation of cybernetics in the 1950s, and defected—after 58 years in the Communist Party of the Soviet Union—to Sweden in 1976. This article argues that Kolman's biography represents his gradual separation of dialectical materialism from other aspects of Soviet authority, a disentanglement enabled by the perspective gained from repeated returns to Prague and the diversity of dialectical-materialist thought developed in the Eastern Bloc.

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KEY WORDS: Arnošt Kolman, dialectical materialism, cybernetics, Stalinism, dissidence, Luzin Affair

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The following abbreviations are used: DS, Dirk Struik Papers, Institute Archives and Special Collections, Massachusetts Institute of Technology, Cambridge, Massachusetts; *FČ*, *Filosofický časopis*; *PZM*, *Pod znamenem marksizma*; RSC, Robert S. Cohen Papers, Howard Gotlieb Archival Research Center, Boston University, Boston, Massachusetts; *SST*, *Studies in Soviet Thought*; *VF*, *Voprosy filosofii*; *VIET*, *Voprosy istorii estestvoznaniia i tekhniki*.

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> Today it is clear to me that at that time I assessed many facts entirely falsely, even especially important facts. Truly captured in error, I nourished illusions which later deceived me; then however I fought, sacrificing everything, for their actualization. I ask myself whether I now can give any guarantee that my judgments of today are correct. Naturally I cannot.
>
> —Arnošt Kolman[1]

Philosophy of science in the twentieth century has been, to a striking degree, Habsburg. Everyone concedes that Vienna was a central location for the reformulation and promulgation of the dominant strands in twentieth-century philosophy of science. The Austrian capital was not only home to the Vienna Circle (*Wiener Kreis*)—the eventual moniker for a group of philosophers who developed their rigorous theories following the inspiration of Ernst Mach (1838–1916), local professor of physics and philosophy—but it was also the point of origin for Karl Popper (1902–1994) and Ludwig Wittgenstein (1889–1951), two of the most determined critics of logical empiricism.[2] Historical circumstances (fascism, world war) led to an exodus of these Viennese *Kulturträger* to the United Kingdom and especially the United States, which has understandably drawn the attention of historians of Anglo-American analytic philosophy of science.[3]

Yet Vienna is a remarkably narrow slice through the diversity of the Habsburg Empire, whether one is talking about politics or philosophy of science. As Mary Jo Nye has recently demonstrated, it is important to recognize that the "roots of [Michael] Polanyi's 'republic of science' lay in his Hapsburg heritage," situating tacit knowledge and post-positivism in the physical chemist and philosopher's upbringing in Budapest (as well as his professional experiences in Berlin and Manchester).[4] The case of Polanyi (1891–1976) not only expands the geographical ambit of the Austro-Hungarian shaping of twentieth-century

1. Arnošt Kolman, *Die verirrte Generation: So hätten wir nicht leben sollen. Eine Biographie*, tr. Elisabeth Mahler-Berger (Frankfurt a/M: S. Fischer, 1979), 13.

2. Malachi Haim Hacohen, *Karl Popper—The Formative Years, 1902–1945: Politics and Philosophy in Interwar Vienna* (Cambridge: Cambridge University Press, 2000); Deborah R. Coen, *Vienna in the Age of Uncertainty: Science, Liberalism, and Private Life* (Chicago: University of Chicago Press, 2007); Thomas E. Uebel, *Rediscovering the Forgotten Vienna Circle: Austrian Studies on Otto Neurath and the Vienna Circle* (Dordrecht: Kluwer Academic Publishers, 1991); and Ray Monk, *Ludwig Wittgenstein, the Duty of Genius* (London: J. Cape, 1990).

3. George A. Reisch, *How the Cold War Transformed the Philosophy of Science: To the Icy Slopes of Logic* (Cambridge: Cambridge University Press, 2005).

4. Mary Jo Nye, *Michael Polanyi and His Generation: Origins of the Social Construction of Science* (Chicago: University of Chicago Press, 2011), 3.

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philosophy of science, it also indicates the importance of the motion of former subjects of the Habsburg Emperor as they transmitted intellectual and cultural traditions wrapped in epistemological treatises. The point could be extended for a large cohort of other figures who came of intellectual age in the Habsburg zone, both before and after the empire: Edmund Husserl, Imre Lakatos, Paul Feyerabend, and Ludwik Fleck, for example.

Almost entirely omitted from this urban-Habsburg origin story is the third city of the Empire: Prague. The historiography of Prague (and in general, Bohemian and Moravian) intellectual traditions is sparse outside of Czech sources, and this is compounded for philosophy of science.[5] In particular, the historiographical stress on the origins of logical empiricism tends to place blinders on anything outside of Vienna, yet even there Prague should be more central to the narrative than it has been to date. Ernst Mach, godfather of the movement, taught at the Charles-Ferdinand University in Prague from 1867 to 1895, developing his acoustic work, writing some of his important works on empiricism, and (as rector) trying to stave off the eventual bifurcation of the university into a Czech University and a German University in 1882.[6] Even more centrally, Philipp Frank (1884–1966), one of the original participants in the Vienna Circle, assumed the post of professor of theoretical physics at the German University in 1912, and used that position to continue his inquiries into epistemology.[7] Frank perceived Prague as continuous with Vienna,

5. Jean Patocka, "La philosophie en Tschécoslovaquie et son orientation actuelle," *Les Études philosophiques*, N.S. 3, no. 1 (Jan/Mar 1948): 63–74. For a history of Marxism in Czech lands, see Ivan Dubský and Slavomil Strohs, "Marxistská filosofie v českýkh zemích," *Filosofie v dějinách českého národa: Protokol celostátní konference o dějinách české filosofie v Liblicích ve dnech 14.–17. dubna 1958*, eds. Jiřina Popelová-Otáhalová and Karel Kosík (Prague: Nakladatelství ČSAV, 1958), 236–65.

6. Ivan Úlehla, "One Hundred and Fifty Years since the Birth of Ernst Mach," in *Ernst Mach and the Development of Physics (Conference Papers)*, eds. Václav Prosser and Jaroslav Folta (Prague: Karolinum, 1991), 25–65. Under communism, Mach's role was fraught, since Lenin had singled him out for particular abuse in *Materialism and Empirio-Criticism*. The Prosser and Folta volume appeared in 1991, after the demise of communism in Czechoslovakia, but the conference it was based on took place in 1988, a resonance of *glasnost* in the Eastern Bloc. See also Dieter Hoffmann, "Ernst Mach in Prag," in *Ernst Mach: Studien und Dokumente zu Leben und Werk*, eds. Dieter Hoffmann and Hubert Laitko (Berlin: Deutscher Verlag der Wissenschaften, 1991), 141–78, for an East German perspective.

7. Philipp Frank, *Modern Science and Its Philosophy* (New York: George Braziller, 1955), 39–40. For reminiscences on Frank and his influence, see *Boston Studies in the Philosophy of Science, Volume Two: In Honor of Philipp Frank*, eds. Robert S. Cohen and Marx W. Wartofsky (New York: Humanities Press, 1965). For specific discussions of the Prague context, see the comments by Peter G. Bergmann (ix–x), R. Fürth (xiii–xvi), and Kurt Sitte (xxix–xxx).

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intellectually speaking, as he put it in his oral history: "The German University of Prague was really no different. It was just a branch of Vienna."[8] But in practice he worked to expand the philosophy, not merely continue it. For example, he was instrumental in arranging the hire of Rudolf Carnap (1891–1970) as professor of natural philosophy at the German University in 1932. The eventual dispersal of Mach, Frank, and Carnap to Austria and the United States has obscured the important role of Prague in fostering logical empiricism.

This essay explores the dispersal of a philosophy of science both to and from this third Habsburg city, but it is not about logical empiricism. Another major movement dominated philosophical reflection on science in the twentieth century and had a significant impact on the conduct and development of the sciences themselves: dialectical materialism. As the official philosophy of science of the Soviet Union, and thus of the largest scientific and technical community in the world, dialectical materialism has attracted its own cadre of historians, with much of the discussion about whether the philosophy had beneficial or (more often) deleterious consequences.[9] This historiography, however, is almost entirely Soviet in focus, omitting the rest of the Eastern Bloc, and it remains detached from the parallel history of logical empiricism. The latter point is rather odd, since many of the logical positivists, such as Philipp Frank, engaged with the Marxists repeatedly (and Frank himself was even criticized by none other than Vladimir Lenin).[10]

Prague was the home city of one of the most prolific and enigmatic of dialectical materialists: Arnošt Kolman (1892–1979).[11] Once you begin to look

8. Philipp Frank, "Oral History Transcript," interview with Thomas Kuhn, Cambridge, Massachusetts, 16 Jul 1962, available at www.aip.org/history/ohilist/4610.html, p. 16 (accessed 30 Aug 2013).

9. Loren R. Graham, *Science, Philosophy, and Human Behavior in the Soviet Union* (New York: Columbia University Press, 1987); and Gustav A. Wetter, *Dialectical Materialism: A Historical and Systematic Survey of Philosophy in the Soviet Union*, tr. Peter Heath (New York: Praeger [1958]); and the sources cited throughout this essay.

10. See, for example, the discussion of Frank's engagement in Reisch, *Cold War* (ref. 3), 228. Reisch describes the process by which Marxist elements were purged out of logical empiricism during the emigration of European scientists to an increasingly anticommunist United States. On Lenin's critique, see Frank's commentary on the dispute in Frank, *Modern Science* (ref. 7), 11.

11. His name has several spellings—Colman, Kol'man (transcribed from Cyrillic)—but I will always use Kolman (except in direct bibliographic citations). As he notes in his Russian-language memoir, when he was captured by the Russians on the Eastern Front in World War I, all of the names were transcribed from the German. Hence, instead of "Arnošt" or (as would be more common in Russian) "Ernst," he appeared as "Ernest" in Cyrillic transcription. E. Kol'man, *My*

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for him, Kolman turns out to be ubiquitous, having written on philosophy of mathematics, logic, history of mathematics, philosophy of physics, cybernetics, and numerous other fields.[12] In conventional histories, however, he appears either as a footnote or as an *éminence grise* who was involved in some of the most notorious episodes in the encounter of science with Marxism. Loren Graham and Jean-Michel Kantor, in their history of Soviet mathematics, recall that Kolman was often called (behind his back, of course) the "dark angel," and consider him "an ideologue of a particularly dangerous type, a man who took his Marxism very seriously and considered all other philosophical viewpoints as threats to the Soviet state."[13] A Russian historian of the development of science studies in the Soviet Union considers him "one of the most complex and contradictory figures of our historiography."[14] For David Joravsky, Kolman was simultaneously "one of the most savage Stalinists on the front of science and philosophy" but also "perhaps the only person on the obscurantists' side who genuinely understood the issues."[15]

Impartial accounts of Kolman are difficult to come by not only because of the passions aroused by his actions during the Stalinist 1930s, but also because in 1976 he defected to Sweden—after 58 years in the Communist Party—and began to write attacks on the Soviet Union.[16] When he is referenced, authors

ne dolzhny byli tak zhit' (New York: Chalidze, 1982), 85. Russians often erroneously render his name as "Ernst."

12. His contemporaries in the West certainly noticed him. For example, after a meeting of logical empiricists in 1934 in Prague (where else?), Charles Morris (1901–1979) asked Otto Neurath (1882–1945) to send an invitation to the 1935 International Congress to Kolman at the Communist Academy in Leningrad, where he had just visited. Reisch, *Cold War* (ref. 3), 42.

13. Loren Graham and Jean-Michel Kantor, *Naming Infinity: A True Story of Religious Mysticism and Mathematical Creativity* (Cambridge, MA: Belknap Press, 2009), 128.

14. S. S. Ilizarov, "Ernest Kol'man, Nikita Khrushchev i IIET," in *80 let Institutu istorii nauki i tekhniki: 1932–2012* (Moscow: Izd. RTSoft, 2012), 198–205, on 198.

15. David Joravsky, *The Lysenko Affair* (Chicago: University of Chicago Press, 1970), 361n30 and 385n76.

16. The exceptions in English are two: Pavel Kovaly, "Arnošt Kolman: Portrait of a Marxist-Leninist Philosopher," *SST* 12, no. 4 (Dec 1972): 337–66, reprinted with no substantial emendation in Kovaly, *Rehumanization or Dehumanization?: Philosophical Essays on Current Issues of Marxist Humanism in Arnost Kolman, György Lukács, Adam Schaff, Alexander Solzhenitsyn* (Boston: Branden Press, 1974); Yakov M. Rabkin, "On the Origins of Political Control over the Content of Science in the Soviet Union," *Canadian Slavonic Papers* 21, no. 2 (Jun 1979): 225–37, which includes an interview with Kolman. Kovaly preceded defection, and Rabkin followed it. See also Eugene Seneta, "Mathematics, Religion, and Marxism in the Soviet Union in the 1930s," *Historia Mathematica* 31 (2004): 337–367; and Dimitri A. Bayuk, "History of Science in Russia: The IIET in Moscow and St. Petersburg," *Centaurus* 56 (2004): 205–28, on 219–20.

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rely on Kolman's own self-presentation in interviews or especially his copious memoir (available in German, Russian, Czech, and multiple Scandinavian languages).[17] Given his swings to and from Stalinism, this memoir—composed while he was in the Soviet Union but published only posthumously from Sweden—ranges from accurate and insightful to highly unreliable. The account that follows uses the memoirs in conjunction with his technical, popular, and archival writings to frame Kolman as a character in his own right.

Kolman's case is admittedly atypical, and the sheer sweep of his life—especially the seemingly inconsistent behavior of the 1930s and the 1970s—has rarely been analyzed outside of his own apologetic memoir; doing so reveals a trajectory that, aside from its intrinsic interest, has the potential to deepen the history of dialectical materialism in both the Soviet Union and especially the satellite states. The very broad scope comes at a cost: the specific nuances of his intellectual positions (which range from the sophisticated to the workmanlike to the incoherent) are here subordinated to the biography. This is not an essay in intellectual history, and certainly not a philosophical study intended to either exonerate or condemn dialectical materialism; it is rather a biographically driven cultural history that uses Kolman's extraordinary productivity and longevity to illuminate the various contexts in which he operated. The perspective reveals a clear arc: in his earlier career, he saw dialectical materialism as inextricably linked to the Soviet project of building communism, and thus subject to brutal instrumentalization in the service of higher goals; his experiences in the late 1940s and 1950s (Prague, prison, cybernetics, and Prague again)—precisely because they removed him from the centers of authority—severed this personal identification of dialectical materialism with the Soviet

17. Kolman, *Die verirrte Generation* (ref. 1); Kolman, *Die verirrte Generation: So hätten wir nicht leben sollen. Eine Autobiographie*, 2d. exp. ed., eds. Hanswilhelm Haefs and František Janouch, tr. Elisabeth Mahler-Berger et al. (Frankfurt a/M: S. Fischer, 1982 [1979]); Kol'man, *My ne dolzhny* (ref. 11); and Kolman, *Zaslepená generace: Paměti starého bolševika* (Brno: Host, 2005) (which contains on pp. 382–83 a useful chronology of Kolman's life). The original was penned in Russian; the German editions were both abridged. The second German edition includes as Part II—"Wie habt ihr so leben können?" (pp. 263–340)—the transcript of an "interview" between Janouch and Kolman, conducted originally orally but later through writing. This dialogue has appeared in Czech as František Janouch and Arnošt Kolman, *Jak jste tak mohli žít?: Dialog generací* (Prague: Novela bohemica, 2011). (The foreword, penned by Janouch, provides a capsule biography of Kolman.) The exchange has not, to my knowledge, ever appeared in Russian. See also B. M. Kedrov, B. A. Rozenfel'd, and A. P. Iushkevich, "Ernest Kol'man (k 75-letiiu so dnia rozhdeniia)," *VIET*, no. 2(27) (1969): 71–73. Unsurprisingly, this last Soviet account does not mention his imprisonment during 1948–1952.

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project; from his defection to his death, he maintained a commitment to the former while vigorously attacking the latter. Kolman's case suggests that attention to the varieties of dialectical materialism in practice, not just in philosophical theory, both in various sites in the Soviet Union and in other socialist states, might reveal a more complex intellectual and social dynamic than indicated in extant scholarship.

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PART I: TOWARD STALIN

Arnošt Kolman was born in 1892 in Prague to Julie and Jaromír, the latter a non-observant Jew who worked as a postal official. Jaromír, typical of Jews of his generation, insisted that his children be raised in German; Arnošt, typical of Jews of his own generation, preferentially adopted Czech as his primary language as he grew older, and his higher education was exclusively in Czech-speaking institutions.[18] As a teenager, Kolman recounted that he "became a Jewish nationalist. I was raised in the spirit of national Romanticism, that is to say the Czech, and so was I raised also at school and by the entire environment in Bohemia." He was not a Zionist, but he took Hebrew courses with the local Jewish nationalist organization, Bar Kochba.[19] In 1910–11, he studied electrical engineering at Prague Polytechnic, at the insistence of his father that he learn a valuable trade; in parallel, from 1910 to 1913, he studied mathematics at the Philosophical Faculty of the Czech University.[20] From the earliest days at university he was a member of the Social Democratic party, and his intellectual interest in Marxism dated to encounters from this period. Upon graduation, he began work as a calculator at the city's astronomical observatory.

When the heir to the Habsburg throne, Archduke Franz Ferdinand, was assassinated in Sarajevo, the Empire mobilized for war and Kolman was drafted. He was an unlucky soldier: wounded once and then returned to the Eastern Front, he was wounded again and captured in September 1915. He spent the rest of the conflict in a prisoner-of-war camp, where he translated among the various Habsburg captives and learned Russian to communicate with their overseers.[21] His personal transition from Czech and German to

18. Kolman, *Die verirrte Generation* (ref. 1), 18–20.
19. Ibid., 29 (quotation), 31.
20. Ibid., 31–32.
21. Ibid., 74.

Russian as dominant language began here, and for the rest of his life he would use all other languages (he also knew French and English well) with a healthy dose of Russianisms.

Once again, history on a grandiose scale intervened in Kolman's life. In October 1917, following Lenin's coup against the Provisional Government in Petrograd, Kolman was freed by the resolutely antiwar Bolsheviks. He would later call it "one of the happiest days of my life."[22] Kolman joined the Bolsheviks almost immediately. Shipped to Moscow, he worked on a three-man team (*troika*) for the new political police, the Cheka, confiscating and expropriating property in the Basmannyi region of the city.[23] From 1918 to 1920, he served in the Red Army, first on the Southern and then the Eastern Front. He came to the attention of several highly placed figures in the Party, most prominently Lenin and also the head of the Cheka, Felix Dzerzhinsky.[24] They quickly realized that a committed operative with excellent German could be better deployed elsewhere, and in late 1920, the Comintern sent him abroad. In 1921, he engaged in illegal party work in Düsseldorf, Chemnitz, and Breslau, and was arrested and convicted for five years. In 1923, he was released in a prisoner exchange and sent back to Moscow, although he immediately returned to organize German workers. In 1924, he was back in Moscow, and worked on educational issues for the regional Party council until 1930.

At this point, Kolman was on track to being an *apparatchik*, working odd jobs wherever his superiors sent him. In 1931, however, he became a member of the editorial board of the Marx/Engels Institute, working on the Soviet edition of Marx's writings; the following year he was appointed a lecturer at the Institute of Red Professors, and then to the Presidium of the Communist Academy (a short-lived competitor to the Academy of Sciences) in 1934.[25] From then on, he would always be writing and teaching. In 1934, he was

22. Ibid., 77.

23. Ibid., 102.

24. Even after his defection, Kolman looked very positively on Lenin and Dzerzhinsky: "I am of the opinion that there are rarely men who are either absolute angels or absolute devils. Each person—or rather each person, including the two of us [Kolman and Janouch]—has his virtues as well as his vices, which is indeed a trivial truth. However there are people among whom the good, and others among whom the bad, qualities prevail. Among the four people you name, I would still today consider Lenin, Bukharin, and also Dzerzhinsky among the former, while Stalin and even Trotsky in my opinion belong to the latter." Kolman, *Die verirrte Generation*, 2d. ed. (ref. 17), 270.

25. This appointment granted Kolman much more exposure, including an article in *Pravda*: E. Kol'man, "Bor'ba za ovladenie naukoi v novykh usloviiakh," *Pravda*, 4 Oct 1931, 2.

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awarded his doctorate in the philosophy of mathematics, and he taught mathematics as well as dialectical materialism throughout the decade. From 1939 until the end of the Second World War, he worked at the Institute of Philosophy of the Academy of Sciences as director of the Department of Dialectical Materialism.

The most consistent and influential strand in this varied and busy Soviet career was editorial work. From 1929 until 1943, he was an editor of the journal that would come to be known as *Under the Banner of Marxism* (*Pod znamenem marksizma*), the central organ of philosophical orthodoxy in the dangerous 1930s.[26] He quickly developed a reputation as "one of the most explicit Stalinists of that time."[27] Kolman had already begun writing pieces on general philosophical topics in the late 1920s, but not necessarily engaged with science.[28] The publication of Friedrich Engels's *Dialectics of Nature* in the Soviet Union in 1929 provided a vehicle to combine his philosophical and propagandistic career with his long-standing interest in the natural sciences.[29] This book, along with Lenin's *Materialism and Empirio-Criticism*, formed the canon of dialectical materialist thought. A necessarily overly brief and simplified version of the most important elements for the philosophy in general and for Kolman in particular were the insistence on rigid materialism (no spiritual forces, idealistic archetypes, noumena)—a metaphysical postulate that also required rejection of anti-metaphysical positions such as logical empiricism—and a commitment to dialectical reasoning: the negation of opposites, the transition from quantity to quality, and separate spheres of explanation (social, biological, physical). Depending on the school of thought, this was supposed to be descriptive (scientists reasoned dialectically), naturalized (the laws of nature were themselves dialectical manifestations), or both.

For Kolman, direct connection of Soviet power with dialectical materialism began with Engels and with Karl Marx's mathematical manuscripts, and it is

26. In 1944, *Under the Banner of Marxism* was discontinued. It was succeeded by *Voprosy filosofii* (*Questions of Philosophy*), in which Kolman also published frequently.

27. Aleksandr Ogurtsov, "Podavlenie filosofii," in *Surovaia drama naroda: Uchenye i publitsisty o prirode stalinizma*, ed. Iu. P. Senokosov (Moscow: Politizdat, 1989), 353–74, on 366.

28. E. Kol'man, "K voprosu o sluchainosti," *PZM*, no. 6 (Jun 1926): 153–57; E. Kol'man and S. Ianovskaia, "Gegel' i matematika," *PZM*, no. 11–12 (1931): 107–20; Kol'man, "K voprosu o dinamicheskoi i statisticheskoi zakonomernosti," *PZM*, no. 1–2 (1931): 207–17.

29. Kolman, *Die verirrte Generation* (ref. 1), 140. When a new translation into Russian was published in 1940, Kolman took the opportunity to extensively praise the significance of this work: E. Kol'man, "K novomu perevodu 'Dialektiki prirody' Engel'sa," *PZM*, no. 1 (1940): 199–207.

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important to underscore that he started out as a member of the *apparat* and only subsequently came to *Dialectics of Nature*. Science soon became his particular theme. Although he would occasionally publish on technical conceptual points of Marxist philosophy, from the early 1930s onward almost all of Kolman's writing was about science, and a good portion of it was vigorous attack.[30] I will focus here on two examples.

The first episode is an important milestone in the history of social constructivist thought: the 1931 International Congress for the History of Science and Technology, which took place in London. International gatherings of historians of science are not usually the stuff of legend, but the unexpected presence of the Soviet delegation—whose contributions were collected later that year in the influential *Science at the Cross-Roads*—and especially the presentation by physicist Boris Hessen, "The Social and Economic Roots of Newton's *Principia*," have repeatedly galvanized social historians of knowledge. The other Soviet essays are rarely read, although the noted geneticist Nikolai Vavilov, physicist Abram Ioffe, and leading Bolshevik Nikolai Bukharin penned their own contributions. The least distinguished member of the delegation was a man rendered in the table of contents as "E. Colman," who authored three pieces on the applications of dialectical materialism to contemporary science and mathematics.[31] They did not leave much of an impression, and Kolman—whose English was among the best in the group—joined in shopping trips and wrote glowing accounts of the Soviet triumph upon his return.[32]

Why was Kolman even there? A clue lies in the disturbing fact that not only was Kolman the sole surviving member of the delegation to be interviewed

30. E. Kol'man, "Vreditel'stvo v nauke," *Bol'shevik*, no. 2 (1931): 73–81; "Boevye voprosy estestvoznaniia i tekhniki v rekonstruktivnyi period," *PZM*, no. 3 (1931): 56–78; "Protiv noveishikh otkrovenii burzhuaznogo mrakobesiia," *Bol'shevik*, no. 12 (1933): 88–96; "Politika, ekonomika i . . . matematika," *Za marksistsko-leninskoe estestvoznanie*, no. 1 (1931): 27–40; "Pis'mo tov. Stalina i zadachi fronta estestvoznaniia i meditsiny," *PZM*, no. 9–10 (1931): 163–72. For one of his nonscientific pieces, see "'Massovoe porozhdenie kommunisticheskogo sozdaniia' i estestvennye nauki," *PZM*, no. 1 (1934): 10–18.

31. E. Colman, "Dynamic and Statistical Regularity in Physics and Biology," in *Science at the Cross Roads: Papers Presented to the International Congress of the History of Science and Technology Held in London from June 29th to July 3rd, 1931, by the Delegates of the U.S.S.R.*, 2d ed. (London: Frank Cass & Co., 1971 [1931]), 83–94; "The Present Crisis in the Mathematical Sciences and General Outlines for Their Reconstruction," ibid., 215–29; and "Short Communication on the Unpublished Writings of Karl Marx Dealing With Mathematics, The Natural Sciences and Technology and the History of these Subjects," ibid., 233–35.

32. Kol'man, "Na tekushchie temy," *PZM*, no. 9–10 (1932): 163–70, on 166; Kolman, *Die verirrte Generation* (ref. 1), 140–43.

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about it by historian of science Loren Graham in the 1970s, he was practically the only member to survive to the end of World War II. Every other member (besides Ioffe) was executed in the purges or died in a prison camp. That they experienced that fate, and that Kolman did not, are related. On August 22, 1971 (before his defection) and on April 22, 1977 (afterward), Graham asked Kolman about the experience, and the philosopher related that he had been Communist Party secretary to the delegation, specifically tasked with keeping the others—many suspected of ideological deviations—in line. Party members were required to emphasize Marxism in their talks, and Kolman reported that Bukharin had fallen short of the mark, but Hessen (whom Kolman had previously attacked in print) had performed well.[33] (This did not save Hessen; he was executed in December 1936.) Kolman had other duties, such as successfully helping to persuade physicist Peter Kapitza, then living in exile in Cambridge, to return to the Soviet Union.[34]

The second episode is the notorious Luzin Affair, a confrontation that struck at the heart of the Moscow mathematical community. Since this history has been told in considerable detail elsewhere, my purpose here is to highlight the parallels with the London Congress: Kolman's crucial ideological role, but his simultaneous and deliberate self-effacement from the record.[35] Kolman, who considered himself an important member of the Moscow Mathematical Society, had sniped at the leading figures of the self-designated "Moscow mathematical school" as far back as 1924, when he attacked Dmitrii

33. Loren R. Graham, "The Socio-Political Roots of Boris Hessen: Soviet Marxism and the History of Science," *Social Studies of Science* 15, no. 4 (Nov 1985): 705–22. Kolman also discussed Hessen in a 1976 interview with Yakov Rabkin, but did not mention his role as enforcer. Rabkin, "Origins of Political Control" (ref. 16), 230. In a footnote on the same page, Rabkin points out the attacks Kolman made on Hessen and his mentor A. F. Ioffe at the same period back in Moscow. As examples of those attacks, see Kol'man, "Pis'mo v redaktsiiu," *PZM*, no. 11–12 (1937): 232–33; and Kol'man, "Boevye voprosy" (ref. 30), 7.

34. Ilizarov, "Ernest Kol'man" (ref. 14), 199.

35. S. S. Demidov and V. D. Esakov, "'Delo akademika N. N. Luzina' v kollektivnoi pamiati nauchnogo soobshchestva," in *Delo akademika Nikolaia Nikolaevicha Luzina*, eds. S. S. Demidov and B. V. Levshin (St. Petersburg: RKhGI, 1999), 9–50; Graham and Kantor, *Naming Infinity* (ref. 13); N. S. Ermolaeva, "On the So-Called Leningrad Mathematical Front," *American Mathematical Society Translations* 193, no. 2 (1999): 261–71; S. S. Demidov, "Moskva matematicheskaia," in *Moskva nauchnaia*, eds. E. A. Beliaev and S. S. Ilizarov (Moscow: Ianus-K, 1997), 136–60, on 153–55; A. P. Iushkevich, "'Delo' akademika N. N. Luzina," in *Repressirovannaia nauka*, ed. M. G. Iaroshevskii (Leningrad: Nauka, 1991), 377–94; and Aleksey E. Levin, "Anatomy of a Public Campaign: 'Academician Luzin's Case' in Soviet Political History," *Slavic Review* 49, no. 1 (Spring 1990): 90–108. Levin was the first to infer Kolman's identity as the architect of the episode; it was later confirmed through archival finds.

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Egorov—toppled six years later—and also, in 1931, Egorov's successor, Nikolai Luzin (specifically singled out in Kolman's presentations in London).[36] Although some of Kolman's antagonism against Luzin stemmed from personal dislike, Luzin's covert but clear commitment to Orthodox Christianity also furnished intellectual grounds.[37] In 1936, the philosopher arranged a sting targeting the mathematician.

Luzin took the bait. In June 1936, Luzin accepted an invitation to visit G. I. Shuliapin's high school mathematics course. A reporter for the newspaper *Izvestiia*, tipped off about Luzin's presence, was also in attendance. Luzin was impressed by the students, and the reporter invited him to write a piece on his experience, which was published on June 27 as "A Pleasant Disappointment."[38] Luzin succumbed to the temptation to exaggerate the competence of the students, and he related that they had made no errors and had astonished him (the "disappointment" of the title) with their mathematical acumen. On July 2, Shuliapin responded in *Pravda*, claiming that Luzin's excessive praise was a disservice to Soviet educators, who did not need false applause.[39] This was a rather high-profile rebuke, and attentive academics of the 1930s saw what was coming. The real denunciation, "On Enemies in a Soviet Mask," published anonymously in *Pravda* the following day, launched into the script of an ideological campaign against Luzin. "This idiosyncratic wrecking in science by Academician Luzin is evident in his own works," the author noted, before declaring the leading mathematician a fascist: "We know where Academician

36. Graham and Kantor, *Naming Infinity* (ref. 13), 131–35, 146–48, 151–52; Colman, "Present Crisis" (ref. 31), 217. For an example of Kolman's increasing efforts to set himself up as an ideological guard-dog against mathematicians, see his preface in Johann Benedict Listing, *Predvaritel'nye issledovaniia po topologii*, ed. and tr. E. Kol'man (Moscow: Gos. tekhniko-teoreticheskoe izd., 1932); and Kol'man, *Predmet i metod sovremennoi matematiki* (Moscow: Gos. sotsial'no-ekonomicheskoe izd., 1936). Mathematicians were not silent in the face of these barrages. For a particularly acidic review of the latter book, see A. O. Gel'fond and L. G. Snirel'man in *Uspekhi matematicheskikh nauk,* no. 4 (1938): 334–36.

37. Kolman resisted religious thinking consistently until the end of his life. See Kol'man, "Protiv noveishikh otkrovenii" (ref. 30), 93; and "Vozrozhdenie pifagoreizma v sovremennoi fizike," *PZM*, no. 8 (1938): 138–60. Kolman's philosophical and historical writings insistently reinforce an opposition between science and religion. See, for example, his analysis of Darwin's letter to Marx: Kol'man, "O tak nazyvaemom 'agnostitsizme' Darvina," *PZM*, no. 1–2 (1931): 205–06.

38. N. N. Luzin, "Priatnoe razocharovanie," *Izvestiia* (27 Jun 1936): 4, reproduced in Demidov and Levishin, *Delo akademika* (ref. 35), 253.

39. G. I. Shuliapin, "Otvet akademiku N. Luzinu," *Pravda* (2 Jul 1936): 3, reproduced in Demidov and Levishin, *Delo akademika* (ref. 35), 254–55.

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Luzin came from: we know, that he is one of the pack of the dishonorable 'Moscow Mathematical School,' the philosophy of which was Black Hundred and whose animating ideas were behemoths of Russian reaction: Orthodoxy and autocracy. We know that even right now he is not far from similar views, perhaps a bit modernized in a fascistic manner."[40] As Aleksey Levin observed in his 1990 account of the dispute, the *Pravda* piece could only have appeared so expeditiously "as a result of some high official's support or direct order." The tone of the anonymous article and even the wording pointed to Kolman's previous attacks on Luzin, and Levin observed that he was the only member of the mathematical community who had enough standing with the Party to arrange such an affair: "The subsequent article could have been published only with his sanction."[41] At first, the public pillorying of Luzin looked like it might end with arrest and exile, or even death, but the campaign pulled up short just as suddenly as it had begun. Luzin was fired from the presidium of the Mathematical Group and left his professorship at Moscow State University and the Mathematical Institute of the Academy of Sciences. He retained his status as academician, however, and took a post at another research institute in the Academy. In 1941, he was returned to the Mathematical Institute and, in 1943, to the University; his rehabilitation is visible in the honorable obituary that followed his death (from natural causes) in 1950.

You would not know that Kolman was involved at all from perusing his publications, even in his confessional dissident period. In fact, Kolman went out of his way to deny that he had ever conducted himself in such a manner. For example, in his interview with his son-in-law František Janouch, he declared that "I can maintain with a clean conscience that I was never a participant and even less an initiator of personal persecutions. Certainly there were not a few who shoved their talented opponents out of the way through denunciations and thus advanced their careers; I never, however, belonged to them."[42] In his interview with Rabkin, likewise after his defection, Kolman specifically brought up Luzin as an example of unfortunate ideological persecution, with the strong implication that he had nothing to do with it.[43] We

40. "O vragakh v sovetskoi maske," *Pravda* (3 Jul 1936): 2, reproduced in Demidov and Levishin, *Delo akademika* (ref. 35), 255–57. "Black Hundreds" were right-wing populist mobs who conducted anti-Semitic pogroms in the decade before the Revolution.

41. Levin, "Anatomy" (ref. 35), 98, 99.

42. Kolman, *Die verirrte Generation*, 2d. ed. (ref. 17), 316.

43. Rabkin, "Origins of Political Control" (ref. 16), 235. Kolman also implicitly approached the issue in a 1968 article on set theory, which argued that philosophers should defer judgment on

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now know that was disingenuous, and not only from the argumentative similarity of the *Pravda* piece to Kolman's writings or the fact that he was the most well placed to initiate (and benefit from) an attack on Luzin. After the dissolution of the Soviet Union, S. S. Demidov and V. D. Esakov found the following secret denunciation in the Presidential Archive of the Russian Federation:

> SECRET
>
> Member of the Academy of Sciences mathematician N. LUZIN, elected in 1919 in the division of philosophy, refused to sign a resolution of Soviet scientists to foreign scientists concerning the Industrial Party trial and in a signal of protest against the reorganization of the Moscow Mathematical Institute and the Moscow Mathematical Society, whose president EGOROV was arrested, LUZIN resigned from the Moscow Mathematical Institute and left for TsAGI [Central Aerodynamical Institute]. Since LUZIN is a specialist in the abstract part of set theory, which has no practical applications, and in the capacity of the leader of the so-called Moscow Mathematical School he boasted that he "had never solved a single concrete equation," then it is unlikely that at TsAGI he can accomplish significant good.
>
> It is necessary to underscore that LUZIN is closely connected with the eminent French mathematician BOREL, an active collaborator with the French military. In his visit in 1929 to Paris LUZIN stayed with BOREL.
>
> The following excerpt from a report at a meeting of the Academy about his foreign trip speaks to his militant idealism: "evidently, the natural numbers do not present an absolutely objective formation. Evidently they represent a function of the head of that mathematician who in a given instance speaks about the natural numbers. Evidently, among the tasks of arithmetic there are tasks which are absolutely unsolvable." On this theme during his trip to France a book was written by LUZIN and published there.
>
> Besides LUZIN most recently Professor GASTERIN began to work at TsAGI, who left in protest from the Institute of Physics at MGU 1, where he conducted destructive anti-societal work.
>
> 22/2.32 E. Kol'man.[44]

This was four years before Luzin's ill-fated visit to the classroom, and was largely inconsequential—Luzin was forbidden to go as a leader of the Moscow Mathematical Society to a conference in Zurich. (His place was taken by

the validity of difficult open questions in mathematics. Kol'man, "Otkrytie mnozhestvennosti matematik i ego filosofskoe znachenie," *VF*, no. 10 (1968): 93–102, on 98.

44. Archive of the President of the Russian Federation, f. 3, op. 33, d. 189, l. 1, reproduced in Demidov and Esakov, "Delo akademika" (ref. 35), 18.

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Kolman.) Notice in the letter that arguments about political heterodoxy (friendship with foreigners, association with those who had been previously arrested) are seamlessly juxtaposed with a dialectical materialist critique of Luzin's ostensible "militant idealism." As in London, Kolman oscillated between the claims of political authority and those of consistency with the official philosophy, and considered deviations from one as related to the other.

After his (partial) victory over one of the leading mathematicians of the day, Kolman was impervious for the rest of the decade. At the height of the purges, he took a leading role in the debates concerning the philosophical status and orthodoxy of new developments in theoretical physics, especially relativity and quantum theory. He always presented himself as a moderate voice—at least moderate relative to the tenor of the times. As historians have noted, Kolman demonstrated a more comprehensive grasp of the scientific issues than the most aggressive philosophers, and while he insisted that philosophy should be the leading discipline, he conceded that there were still open scientific questions and a definitive judgment on contemporary physics would have to be deferred.[45] He even skirted the notorious debates over Mendelian genetics (identified with Trofim Lysenko) without committing himself either way.[46] That said, even his more moderate pieces occasionally denounced specific individuals for ideological deviations, knowing that a negative mention in *Under the Banner of Marxism* could lead to arrest or worse.[47] Yet Kolman also

45. Alexander Vucinich, *Einstein and Soviet Ideology* (Stanford, CA: Stanford University Press, 2001), 62–63, 81–83; Vucinich, "Soviet Physicists and Philosophers in the 1930s: Dynamics of a Conflict," *Isis* 71, no. 2 (Jun 1980): 236–50; and A. S. Sonin, *"Fizicheskii idealizm": Istoriia odnoi ideologicheskoi kampanii* (Moscow: Fiziko-Matematicheskaia Literatura, 1994), 41–42.

46. Kolman, *Die verirrte Generation* (ref. 1), 169–70. In David Joravsky's classic history of Lysenko's rise and fall, Kolman only appears occasionally, which bolsters Kolman's own presentation. See Joravsky, *The Lysenko Affair* (ref. 15), 113, 333, 361n30. Kolman did explicitly attack eugenics and German biological writings, which provided plenty of ammunition for Lysenko's campaigns. See Kol'man, "Chernosotennyi bred fashizma i nasha medikobiologicheskaia nauka," *PZM*, no. 11 (1936): 64–72.

47. For examples of his more moderate interventions, see "Pis'mo v redaktsiiu 'Pod znamenem marksizma,'" *PZM*, no. 4 (1933): 230; "Teoriia kvant i dialekticheskii materializm," *PZM*, no. 10 (1939): 129–45; "Teoriia otnositel'nosti i dialekticheskii materializm," *PZM*, no. 6 (1939): 106–20; "O zlobodnevnom znacheniia teorii veroiatnostei," *PZM*, no. 2 (1934): 71–76; and "Uzlovye problemy sovremennoi atomnoi fiziki," *Front nauki i tekhniki*, no. 2 (1936): 24–34. These should be compared with his sharper pieces: "Novye vystupleniia za i protiv indeterminizma v fizike," *PZM*, no. 6 (1934): 187–90; "O poleznykh knizhkakh, trebuiushchikh ispravleniia," *PZM*, no. 3 (1933): 174–77; "K vystupleniiu Einshteina po voprosu o sovremennoi fizike," *PZM*, no. 12 (1940): 100–05; "Problema prichinnosti v sovremennoi fizike," *PZM*, no. 4 (1934): 80–109 (this one specifically targets Ioffe); "Fizika i filosofiia (K diskussii na stranitsakh

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published occasionally abroad, at a time when too much exposure in foreign learned journals could be a liability rather than an asset. Kolman's 1935 piece in *Philosophy of Science*, for example, was a gesture to connect with Western Marxists, although presented in terms of formal logic complete with citations to Hans Reichenbach and Rudolf Carnap and without explicit reference to Lenin or Stalin.[48] Those invocations were routine in his Soviet publications, of course.[49]

PART II: PRAGUE DIPTYCH

Stalin was one polestar by which Kolman would navigate his complex career. The other was Prague. After his capture on the Eastern Front, Kolman returned to Prague many times, but only twice for extended stays: 1945–1948 and 1959–1962. All things considered, these few years do not comprise a substantial segment of his adult career, but the experiences there proved formative for Kolman. Both returns began with triumph and ended with ignominy.

In 1945, fresh from wartime evacuation to Alma Ata and work for the Red Army on German and Czechoslovak questions, Arnošt Kolman (not Ernest Kol'man) was returned to Prague as the head of the Propaganda Department of the Central Committee of the Czechoslovak Communist Party, one of the largest in Europe. After years of Nazi occupation the victorious Soviets were immensely popular in Prague, and Kolman, appointed a professor of philosophy at Charles University, basked in the glow of approbation.[50] The propaganda went both ways: he relayed Moscow's communications to the Czechs and Slovaks, especially in a series of articles in the journal *Tvorba* and in public

'Nature')," *PZM*, no. 7 (1937): 64–80; and "Puteshestvie prof. L. Landau k potomkam," *PZM*, no. 2 (1940): 204–05.

48. E. Kolman, "On the Problem of a Unified Physical Theory of Matter," *Philosophy of Science* 2, no. 4 (Oct 1935): 400–12.

49. "Thus, in our Soviet society, in the society which Stalin leads from socialism to communism, science, having been earlier one of many ideological strands, was transformed into a serious force of social development and is furthermore transformed into a stimulus of activity for the conscious person, in the content of his daily life." Kol'man, "Stalin i nauka," *PZM*, no. 12 (1939): 172–86, on 186. On Lenin, see Kol'man, "'Materializm i empiriokrititsizm' V. I. Lenina i sovremennaia fizika," *Sovetskaia nauka*, no. 2 (1939): 57–70.

50. John Connelly, *Captive University: The Sovietization of East German, Czech, and Polish Higher Education, 1945–1956* (Chapel Hill: University of North Carolina Press, 2000), 33.

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question-and-answer sessions covering topics as diverse as atomic weapons and the status of women in the Soviet Union, and he also presented Czechoslovakia to the Soviet Union as a triumphant example of the spread of Communism.[51] He focused on securing victory for the Communist Party in Czechoslovakia—a victory ensured following the February 1948 coup against the Third Republic—but also continued to publish and lecture on the history and philosophy of science, including a notable 1948 lecture on heat death of the universe at Charles University, with citations to Czech philosophers like Tomáš Masaryk and Augustin Smetana.[52]

Overconfident, Kolman went too far. After the Communist seizure of power, he quickly became apprehensive of the direction taken by Czech leaders, especially Rudolf Slánský, General Secretary of the Czechoslovakian Communist Party. In the wake of Josip Broz's (a.k.a. Tito's) break from the Stalinist camp in the direction of a nationalist communism for Yugoslavia, Kolman thought Slánský was headed in the same direction. As he recalled his actions in his memoirs: "I thus selected an entirely legal path and sent on 12 September 1948 to the magazine *Tvorba*, whose editor then was Gustav Bareš, an article with the title 'For a Bolshevik Critique in our KPČ.' I wrote there that in connection with the Yugoslav 'nationalist betrayal' and Polish 'Right opportunism' it is important to practice meaningful self-criticism in one's own ranks."[53] Slánský complained to Moscow; Kolman was arrested and sent back. He spent three years incarcerated in the Lubianka headquarters of the People's Commissariat of Internal Affairs (NKVD), much of it in solitary confinement.

In 1952, he was summarily released. This was not a result of de-Stalinization, for Stalin did not die until March 1953, and releases of his political prisoners took longer still. Rather, Kolman was freed because Stalin had had enough of Slánský, and the latter was put through a show-trial and executed in December 1952 for . . . being a nationalist communist in the mold of Tito. It was

51. For examples, see Arnošt Kolman, "Dvě tendence v kontinentální filosofii," *Tvorba* 16, no. 20 (1947): 360–61; Kolman, *Diskuse s univ. prof. dr. Arnoštem Kolmanem* (Prague: Orbis, 1946); and E. Kol'man, "Peredovye cheshskie filosofy na puti k dialekticheskomu materializmu," *VF*, no. 1 (1948): 391–95, on 391.

52. Arnošt Kolman, *O tak zvané tepelné smrti vesmíru* (Prague: Nákl. filosofické fakulty Karlovy University, 1948). Kolman had written earlier on this topic in Russian: Kol'man, "O tak nazyvaemoi 'teplovoi smerti' vselennoi," *PZM*, no. 11 (1940): 125–51.

53. Kolman, *Die verirrte Generation* (ref. 1), 191–92. He had alleged ten pages earlier (180–81) that Slánský's men attempted to assassinate him while he was dining at home with his family.

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vindication of sorts, but an awkward one. Kolman, not entirely rehabilitated, now had to make his way anew in the Moscow academic world. He obtained a job teaching mathematics at the Moscow Automechanical Institute and resumed publishing Stalinist articles.[54]

As Nikita Khrushchev emerged as the victor in the behind-the-scenes struggle to succeed Stalin, Kolman began to moderate his philosophical views to suit the new order.[55] Khrushchev was a lucky break for the philosopher, as Kolman had worked for him on the Moscow city council in the mid-1930s and could approach the General Secretary for assistance in obtaining a more suitable job. The request went through channels, but the philosophers at the Academy of Sciences declined to take Kolman back; needless to say, the mathematicians were also uninterested in welcoming Kolman. A harmless posting was found: at the Academy's Institute for the History of Natural Science and Technology.[56] Building a new identity as a historian of science, justified in no small part by his attendance at the 1931 London Congress, Kolman took to the position like a fish to water, and began writing histories of mathematics. He had ventured in this area before, having written in 1945 a stridently anti-fascist biography of Nikolai Lobachevskii.[57] (A revised edition, published in 1956 from his new perch at the Institute, expunged the Stalinist rhetoric.)[58] He would retain this affiliation for the rest of his Soviet career, yet continued to proselytize for dialectical materialism, including

54. For example, "Bertrand Russell—spear-carrier of imperialism," which includes a fulsome citation to Stalin: Kol'man, "Bertran Rassel—oruzhenosets imperializma," *VF*, no. 2 (1953): 168–82, citation on 180. Kolman dated his conflict with Russell to 1948 and a dispute about the politics of the atomic bomb, in *My ne dolzhny* (ref. 11), 249–50. See also his Stalinist attacks on Erwin Schrödinger and Werner Heisenberg, whom he accused of contaminating physics by filtering it through philosophy: Kol'man, "Kuda vedet fizikov sub"ektivizm," *VF*, no. 6 (1953): 173–89; and "Pravil'no li vydeliat' dvizhenie mikrochastits kak osobuiu formu dvizheniia?," *VF*, no. 5 (1954): 236–38. The irony is not noted.

55. For example, Kol'man, "K sporam o teorii otnositel'nosti," *VF*, no. 5 (1954): 178–89.

56. Ilizarov, "Ernest Kol'man" (ref. 14). For reproductions of further archival documents on the appointment, see I. R. Grinina and S. S. Ilizarov, "Dokumenty o prebyvanii Ernesta Kol'-mana v Institute istorii estestvoznaniia i tekhniki AN SSSR," *VIET*, no. 1 (1998): 156–61.

57. For an example, consider the final sentence of the first edition: "Also the mathematicians of the Soviet Union—standing in the first ranks of world scientists and in the avant-garde of warriors against fascist barbarism, for the flourishing of our motherland, and with it also all progressive peoples of the world—have written them on their banner." E. Kol'man, *Velikii russkii myslitel' N. I. Lobachevskii* (Moscow: Gos. izd. politicheskoi literatury, 1944), 99.

58. Kol'man, *Velikii russkii myslitel' N. I. Lobachevskii*, 2d. ed. (Moscow: Gos. izd. politicheskoi literatury, 1956).

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a 1959 popularization of modern physics entitled *Lenin and Contemporary Physics*.[59]

Even though he was now officially a historian, his great intellectual engagement of the 1950s came not from contemplating the past but from plunging into the future. He discovered cybernetics, the science of control and feedback created by MIT mathematician Norbert Wiener. Cybernetics played an outsized role in the later Soviet period as it moved from ideologically demonized pseudoscience to central pillar of late Soviet planning. There are two ways to tell the story of the stunning rescue of cybernetics from the tundra of official disapproval. The first, and certainly the more significant, concerns the mobilization by mathematicians and electrical engineers to persuade the Soviet state of the utility of computers, in part by stoking fears of American achievements in this area. The second story concerns how a maverick philosopher of science pushed for cybernetics as the pivotal tool that would help usher in a communist utopia. That philosopher was Kolman.[60]

On November 19, 1954, Kolman gave a lecture at the Academy of Social Sciences entitled "What Is Cybernetics?," which began with an explanation of the fundamental tenets (negative entropy, Turing machines), continued with a Leninist philosophical justification, and then concluded with a rousing exhortation to invest heavily in this science of the future. As he put it in an expanded pamphlet: "Cybernetic technology is the technology of a communist society in construction. Here it makes possible the transformation of the worker into an engineer-tinkerer, it will enable the annihilation of the existing difference between physical and mental labor, the shortening of the working day, the creation (along with atomic energy) of uncountable material goods and possibilities for the cultural growth of the people."[61] Importantly, Kolman was for the first time in his career arguing *against* the official Soviet line, and

59. Kol'man, *Lenin i noveishaia fizika* (Moscow: Gos. izd. politicheskoi literatury, 1959). For his historical work on ancient mathematics, see E. Kol'man, *Istoriia matematiki v drevnosti* (Moscow: Gos. izd. fiziko-matematicheskoi literatury, 1961).

60. See especially Slava Gerovitch, *From Newspeak to Cyberspeak: A History of Soviet Cybernetics* (Cambridge, MA: MIT Press, 2002). Gerovitch discusses Kolman's writings on cybernetics, somewhat dismissively, on pp. 170–73, 197, and his earlier attacks on Soviet physicists on pp. 23–24. For contemporary Western interest in Soviet developments, see Maxim W. Mikulak, "Cybernetics and Marxism-Leninism," *Slavic Review* 24, no. 3 (Sep 1965): 450–65; and David Dinsmore Comey, "Soviet Publications on Cybernetics," *SST* 4, no. 2 (Jun 1964): 142–61.

61. E. Kol'man, *Kibernetika (O mashinakh, vypolniaiushchikh nektoroye psikhicheskie funktsii cheloveka)* (Moscow: Znanie, 1956), 39. For the original lecture, see the published stenogram in Kol'man, "Chto takoe kibernetika?," *VF*, no. 4 (1955): 148–59.

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using dialectical materialism to make his case; conceptually, he had begun to insert daylight between the two, and the rift would further widen in his later writings on the topic, even as the Soviet state came around on the question of cybernetics. Kolman continued to publish voluminously on cybernetics for both technical and lay audiences (including children), and in Russian, Czech, French, and English.[62] He even was granted the privilege of writing the preface to the Russian translation of Wiener's *The Human Use of Human Beings*, which situated that work as bourgeois, but still a valuable impetus to the correct Soviet ideological interpretation of this important field.[63]

Once again, Kolman was sent to Prague, this time not as a revolutionary but as a defender of the established order. In 1959, he assumed the post of Director of the Institute of Philosophy of the Czechoslovak Academy of Sciences, of which he was now appointed a full member. He became a citizen of Czechoslovakia, and, in 1960, was appointed head of the Scientific Board for Philosophy of the Academy and editor in chief of its philosophical journal, *Filosofický časopis*. The latter became the venue for his many philosophical articles about scientific theories, alongside a new genre: essays on Eastern Bloc philosophy of science, including critiques of Titoist thought and praise of a Bulgarian philosopher.[64] From the vantage point of Prague, Kolman now explored a different aspect of dialectical materialism: its capacity to serve as a unifying force within the Bloc, not simply along spokes radiating from Moscow. Again, Soviet authority and the philosophy of science were becoming increasingly

62. A. I. Berg and E. Kol'man, eds., *Kibernetika ozhidaemaia i kibernetika neozhidaemaia: Sbornik* (Moscow: Nauka, 1968); Arnošt Kolman, "Na obranu kybernetiky," *FČ* 8, no. 4 (1960): 515–29; Kol'man, "Mogut li mashiny obladat' psikhikoi?," *Tekhnika—molodezhi*, no. 1 (1962): 24–26; Kol'man, "Kibernetika stavit voprosy," *Nauka i zhizn'*, no. 5 (1961): 43–45; Kol'man, "Matematika v novykh oblastiakh znaniia," *Priroda*, no. 1 (1964): 11–19; Kolman, "The Adventures of Cybernetics in the Soviet Union," *Minerva* 16, no. 3 (Autumn 1978): 416–24; and Kolman, "La cybernétique au service de l'homme et de sa culture: Espérances et craintes," *Comprendre*, no. 10–11 (1974): 179–84. Lest one be tempted to think that Kolman had mellowed his earlier aggressive views, on p. 17 of this last piece he cited one of his polemical articles of 1931 without any qualification.

63. Kol'man, "O filosofskikh i sotsial'nykh ideiakh Norberta Vinera," in Norbert Wiener, *Kibernetika i obshchestvo* (Moscow: Izd. inostrannoi literatury, 1958), 5–22.

64. For the criticism, see Kolman, "Další úskoky revizionizmu," *FČ* 8, no. 2 (1960): 149–61; for the praise of the Bulgarian, see "Todor Pavlov—Marxistický filosof, bojovník a budovatel," *FČ*, no. 3 (1960): 422–24. On his typical publications, see "O zákonitostech vývoje přírodních věd," *FČ*, no. 3. (1960): 318–25; "Materiální podstata rozporu a její odraz v myšlení," tr. Miloslav Šott, *FČ* 7, no. 3 (1959): 381–91. On Kolman's division in the Academy, see Kolman, "Deset let FÚ ČSAV," *FČ* 11, no. 2 (1963): 264–80.

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separated in his thinking. Kolman's extensive research project on Bohemian philosopher (and advocate of Czech-German unity) Bernard Bolzano (1781–1848) deepened this aspect.[65]

Cybernetics dominated his public writings in Czechoslovakia, which included a popular book, published handsomely by a press that specialized in belles-lettres, entitled *Views into the Future*. Most of the essays were Czech reworkings of earlier Russian publications, but he also composed a new chapter in the form of a fictional dialogue, and floated ideas about futuristic possibilities like the "Mentalcaptor," an electroencephalographic helmet that would enable mind reading.[66] Both his Russian and Czech writings of the 1960s often dabbled in futurology, as advances in nuclear power and especially space flight captured his imagination. The future became, in fact, the purpose of science:

> Science is not only the systematization of the entirety of knowledge of facts, of regularities of the actual world, but it is simultaneously an indication for its complete refashioning. Therefore it is directed forward, to the future, and even when it—as, for example, in history, archaeology, paleontology, etc.—studies the past, it does this in the final account not for the sake of the past itself, but so that we can on its basis judge today's development, and chiefly development in the future. Prediction is the most important living function of science.[67]

The future would be cybernetic, and it would be communist—but this socialist, dialectical materialist future is no longer explicitly based in Soviet Moscow.

Kolman was not long for Prague. By the early 1960s it is clear that he had begun to chafe against the constraints of his new position. In 1962, in a statement to the Twelfth Party Congress of the Czechoslovak Communist Party, Kolman advocated liberalization of press supervision and greater freedom of publication and travel.[68] In 1963, he situated these demands within a critique of Stalinism, arguing that the Czechoslovak regime needed to purge any residual elements of this deviant form of Marxism and return to Leninist

65. Kolman, "Matematicko-logická stránka Bolzanovy filosofie," in *Filosofie v dějinách* (ref. 5), 124–34; Kolman, *Bernard Bolzano* (Prague: Státní naklad. politické literatury, 1958). This latter volume also appeared in Russian, and was translated from that language into German.

66. Kolman, *Výhledy do budoucna* (Prague: Československý spisovatel, 1962).

67. Kol'man, "Chelovek v epokhu kosmicheskikh poletov," *VF*, no. 11 (1960): 124–32, on 124–25. For more publications along this line, see Kol'man, "Kiberneticheskie aspekty kosmologii v svete filosofii," *VF*, no. 7 (1969): 96–102; and "Eshche raz o chuvstve mery," in Berg and Kol'man, eds., *Kibernetika ozhidaemaia* (ref. 62), 61–75.

68. Kolman, *Die verirrte Generation* (ref. 1), 242–43.

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fundamentals.[69] Officials in Prague—including many of those who were architects of the liberalizing "Prague Spring"—once again irritated at this gadfly, sent him back to Moscow. The rejection stung, and Kolman remained bitter at his Czechoslovak colleagues through the next two decades. Although he retained his formal status as an academician, he retired and resumed Soviet citizenship on March 3, 1964.

Given Kolman's understandable propensity to present himself as the hero of his life story, his account of his return to Moscow is characteristic:

> Why did I really leave Prague? Besides the mentioned reasons of old age, the abnormal relations between me and the leadership of the Central Committee as well as the Presidium of the Academy of Sciences were in very strong measure determinative for my resolution. If I met the gentlemen from the Central Committee and the Academy, they greeted me, to be sure, shook my hand, laughed hollowly and made compliments; behind my back however they did everything to destroy my work and to discredit me.[70]

His Institute was poorly funded and understaffed, and the Presidium repeatedly failed to fulfill its promises. Permission for Kolman to run a philosophical congress in Prague was rescinded without explanation. His sense of self-importance was grossly offended:

> And as to what concerns my person, I was then in Czechoslovakia easily the oldest Communist with the longest experience with Party work—and perhaps the only one still living who had known Lenin. Despite this they did not select me as a delegate to the 12th Party Congress, yes, they even neglected to grant me a guest pass, and they did not even invite me to the celebration that the Central Committee and the Prague City Committee put together on 22 April 1960 to celebrate Lenin's ninetieth birthday. So I left Prague, but I did not give myself any illusions that things would be better for me in Moscow.[71]

69. Kolman, "Proti dogmatismu v naší filosofii," *FČ* 11, no. 2 (1963): 222–27.

70. Kolman, *Die verirrte Generation* (ref. 1), 246.

71. Ibid., 246–47. In the fuller Russian version, he added: "When from 1945 to 1948 and then from 1959 to 1962 I lived in Prague, I could not get used to the well-known pettiness, thrift, and philistinism of other Western people. However, at the same time I miss Prague and Czechoslovakia, I deeply love the Czech people, its culture, and with inexpressible pain think about its present unenviable fate." Kol'man, *My ne dolzhny* (ref. 11), 122.

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PART III: AWAY FROM STALIN

Despite perceived limitations on his professional advancement, the now-retired Kolman was intensively active in writing and attending philosophical and historical congresses. His third exit from Prague did not disrupt his work to connect Eastern Bloc philosophy, this time under the banner of cybernetics, raising logic to a new prominence and demonstrating the need to understand the differences between human and machine cognition.[72] Even more to the point, cybernetics demanded a rearticulation of the concept of "labor" within Marxist doctrine, a position that gave him the reputation of a "revisionist" among Western observers of postwar communist ideology, despite his political distance from Czechoslovak reformers.[73] Kolman thus reversed his original path to dialectical materialism through Soviet political theory and practice; now Soviet theory would have to adjust to the requirements of scientific philosophy.

By the late 1960s Kolman explicitly indicted common practices among Soviet philosophers, practices that he himself had often indulged in. For example, in an article demanding a return to Leninist thought written for the main Soviet journal of the history of science, he wrote:

> One of the most widespread manifestations of the uncreative approach to Marxism is quotation-mongering: instead of proving with facts and theoretical analysis, they simply pull out statements which supposedly are appropriate to the given situation, supposedly support the given proposition. Frequently they ignore the circumstance that the statements of Marx, Engels, or Lenin, ripped from context, can express a sense different than they did for their authors, and that these expressions, with the passage of time, already in different historical conditions, at the contemporary level of the development of science, can be incomplete and sometimes simply inaccurate.[74]

72. Consider, for example, the slim logic primer he composed with Otakar Zich, originally published in Czech in 1965 by Mladá Fronta, and then released in an East German translation five years later: Otokar [*sic*] Zich and Arnost Kolman, *Unterhaltsame Logik*, tr. Gerhard König (Leipzig: B. G. Teubner Verlagsgesellschaft, 1970 [1965]).

73. Kolman, "Práce, kybernetika a komunismus," *FČ* 13, no. 1 (1965): 97–106. For commentary on Kolman's revisionism, see Kurt Marko, *Evolution wider Willen: Die Sowjetideologie zwischen Orthodoxie und Revision* (Graz: Herman Böhlaus, 1968), 170–71.

74. Kol'man, "Ob odnoi leninskoi mysli," *VIET* no. 1(30) (1970): 54–57, on 54. See also Kol'man, "Sovremennaia fizika v poiskakh dal'neishei fundamental'noi teorii," *VF*, no. 2 (1965): 111–22; Kolman, "Über die Bedeutung der Geschichte des Existenzproblems in der Mathematik,"

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In a 1973 article reviewing Werner Heisenberg's autobiographical writings, he lavishly praised the West German statesman of science, whom he had excoriated as a bourgeois idealist in the 1930s, now even positively spinning the physicist's more ambiguous interactions with the Nazi regime.[75]

These subtle changes exemplify Kolman's efforts to bring himself closer to Western philosophy of science—closer, but not so close as to dive into the mainstreams of logical empiricism or the emerging post-positivism of Karl Popper or Thomas Kuhn (of both of whose works he was aware). Rather, he at first approached Western Marxists, looking for collegiality and support. Indicative of his strategy, and differing from other examples only in the intensity of the correspondence, is his connection with Dirk Struik, mathematician and historian of science at MIT, and Robert S. Cohen, philosopher of science at Boston University. Although he had met Struik at an underground communist meeting in Weimar Germany—Struik representing the Dutch party, Kolman the Comintern, and both almost arrested—and the two had developed a friendship in the 1930s, the flood of letters to Struik only really began as his self-diagnosed ostracism in the Soviet Union manifested after returning from Prague.[76] The first fruit was an Occasional Paper, edited by Struik and Cohen, published by the American Institute of Marxist Studies, which presented a fairly straightforward dialectical materialist account of scientific certainty in a manner devoid of canonical citations or polemics, identifiable as "Marxist" only to cognoscenti.[77] (Editing this was no small matter; Struik wrote Cohen that he and his wife Ruth had "translated it from Eisenhowerese into what we believe is readable English," but that the paper was only "important as a document to show how in the Soviet Union an attempt is made to break through the dogmatism of the old school.")[78] The volume of

Beiheft zur Schriftenreihe für Geschichte der Naturwissenschaften, Technik und Medizin (1964): 64–70; Kol'man, "Otkrytie mnozhestvennosti matematik i ego filosofskoe znachenie," *VF*, no. 10 (1968): 93–102.

75. Kol'man, "Filosofskie razdum'ia o razvitii sovremennoi atomnoi fiziki," *Nauchnye doklady vysshei shkoly, Filosofskie nauki*, no. 6 (1973): 43–50.

76. The incredible story of the near-arrest is presented in Kolman's autobiography, *Die verirrte Generation* (ref. 1), 116, and is largely confirmed by Struik's unpublished memoirs: Dirk Struik, "[Personal Recollections]," [1973?], DS, MC 418, Box 1, Folder: "Personal Recollections, 1973?", 24–25.

77. E. Kolman, *Considerations about the Certainty of Knowledge*, eds. Robert S. Cohen and Dirk J. Struik (New York: American Institute for Marxist Studies, 1965).

78. Dirk Struik to Robert Cohen, 22 Mar 1965, RSC, #1666, Box 29, Folder 18: "Kolman, Arnost."

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correspondence with both Bostonians is impressive, consisting mostly of either greeting cards for various holidays or desperate inquiries about the fate of several of his submissions to Cohen's *Boston Studies in the Philosophy of Science*.[79]

Kolman lived in Moscow until 1976, continually frustrated by the refusal of OVIR (the Soviet visa agency) to allow him and his wife, Ekaterina Kontsevaia, visas to travel abroad to visit their daughter Ada, her husband František Janouch, and their children (first to Prague, and then, after the family's emigration, to Stockholm). According to Janouch, the impasse for the exit visa was only removed through a direct appeal by Swedish Prime Minister Olof Palme to General Secretary Leonid Brezhnev.[80] Once he arrived, however, Kolman defected—amid rumors that he had died, which Kolman later dismissed to Cohen as a disinformation campaign by the KGB—and sealed that defection by writing an open letter to Brezhnev (published, among other places, in the *New York Times* as an op-ed piece) in which he renounced his Party membership.[81] Now he entered the ranks of the "dissidents," and his extraordinary writing output took the form of denunciations of the Soviet regime, in which the émigré press delighted.[82] He also published in German

79. Some of these were published, including an undistinguished contribution to Struik's festschrift: Kolman, "The Concept of 'Simplicity' in the Physico-Mathematical Sciences," in *For Dirk Struik: Scientific, Historical and Political Essays in Honor of Dirk J. Struik* (*Boston Studies in the Philosophy of Science* 15), eds. R. S. Cohen, J. J. Stachel, and M. W. Wartofsky (Dordrecht-Holland: D. Reidel, 1974), 365–71. Kolman was most worried about an essay on relativity theory, which he claimed had been accepted by the Soviet journal *Voprosy filosofii* and then pulled without explanation. The frantic tone of letters on this topic is evident, e.g. Kolman to Struik, 30 Oct 1974, DS, MC 418, Box 7, Folder: "K-M"; Kolman to Cohen, 5 Sep 1977, RSC, #1666, Box 29, Folder 18: "Kolman, Arnost."

80. Janouch's foreword in Kolman, *Zaslepená generace* (ref. 17), 7.

81. The full letter, in German, is reproduced in Kolman, *Die verirrte Generation*, 2d. ed. (ref. 17), 365–68. The slightly abridged *Times* version appeared as Arnosht [*sic*] Kolman, "Is Marching On," *New York Times*, 13 Oct 1976, 38. On the rumors of his death, see Robert Cohen to Kolman, 10 Oct 1977, DS, MC 418, Box 7, Folder: "K-M"; and Arnost Kolman to Cohen, 18 Oct 1977, RSC, #1666, Box 29, Folder 18: "Kolman, Arnost."

82. Kolman's last publication was a denunciation of the Sharansky/Ginsburg trials of 1978: Kolman, "Moskauer Prozesse 1978—Glaubt ihnen kein einziges Wort," in *Opposition ohne Hoffnung?: Jahrbuch zu Osteuropa 2*, eds. Jiří Pelikán and Manfred Wilke (Reinbek bei Hamburg: Rowohlt Taschenbuch, 1979), 140–41. For the émigré press and commentaries, see "Korotkie soobshcheniia," *Posev* 32, no. 11 (1234) (Nov 1976): 11–13, on 11. The problematic nature of the category "dissident" is well discussed in Jonathan Bolton, *Worlds of Dissent: Charter 77, the Plastic People of the Universe, and Czech Culture under Communism* (Cambridge, MA: Harvard University Press, 2012).

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a translation of a set of satirical stories he had composed in Russian about a farcical totalitarian regime.[83] He was, it seemed, a completely changed man.

Except that he was still a Marxist, deeply committed to dialectical materialism. As he now represented it, the problem with the Soviet Union was not Marxist or even Leninist ideology, but the Soviet bureaucracy and particularly Stalin. As he declared in a 1978 article: "It is not right to think that we all were careerists; on the contrary, most persons acted in good faith and this gave their declarations the force of conviction."[84] Or, as he put it in his final interviews with Janouch: "Because the ideas for which I have fought, weapon in hand, with my pen, the ideas of socialism, the unfalsified theory of Marxism, dialectical and historical materialism, are scientifically grounded, are true, are human and are to be actualized. I do not belong to those who swing on the pendulum from one extreme to the other, for whom all that a short time ago they had defended is now made black. I have become no anti-Marxist, no anticommunist [. . .]."[85] His final philosophical publication, which appeared posthumously, was in fact a dialectical-materialist critique of physicist Carl von Weizsäcker, a manuscript he claimed had been censored and pulled from publication in the Soviet Union in 1975.[86] Even at the moment when he was most explicitly anti-Party, he was most affirmatively pro-dialectical materialism. When he died on January 22, 1979, Kolman was eulogized in the Western obituaries as a "confidant of Lenin and pupil of Einstein," neither of which was quite true.[87] His time in the Lubianka and exile was mentioned; the Luzin Affair was not. And then he slipped into oblivion.

CONCLUSION

The great mystery of Kolman's career is why he left the Soviet Union and the Communist Party after so many years of faithful, even exuberant, loyalty and service. Despite Kolman's attempt to retain the philosophy while jettisoning

83. His satirical pieces appeared posthumously in West Berlin as Arnošt Kolman, *Auf der Mauer, auf der Lauer: Satiren über den staatlich verordneten Verdacht* (West Berlin: Olle & Wolter, 1979). These are discussed in one of the rare secondary pieces on Kolman: Kurt Marko, "No Juvenal of Bolshevism," tr. T. J. Blakeley, *SST* 22, no. 2 (May 1981): 147–49.

84. Kolman, "The Adventures of Cybernetics" (ref. 62), 418.

85. Kolman, *Die verirrte Generation*, 2d. ed. (ref. 17), 276–77. See also p. 286.

86. E. Kolman, "The Philosophical Interpretation of Contemporary Physics," tr. E. M. Swiderski, *SST* 21, no. 1 (Feb 1980): 1–14, on 13n.

87. "Prof. Ernst [*sic*] Kolman, A Confidant of Lenin, Dies in Sweden at 85," *New York Times*, 26 Jan 1979), A23.

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the Party, when communism was dismantled across Eastern Europe and the Soviet Union, dialectical materialism essentially died with it. Certainly it has no place of prominence in the historiography of the discipline of the philosophy of science, either in the United States or in Russia, let alone in the Czech Republic. The reasons for the silence are different: in the United States, dialectical materialism was often seen as a thin ideological screen, a sideshow from the main intellectual attraction of logical empiricism; in Soviet Russia, despite a robust discussion of the philosophy, Kolman was ignored as a "non-returner" (*nevozvrashchenets*); and in the Czech Republic, the philosophy represented yet another insult imposed from Moscow.[88] These reasons for historiographical neglect are not intellectually grounded. In terms of scale and influence, this was one of the twentieth century's most vigorous philosophies of science, and its history ought to be incorporated into the narratives of the history of philosophy of science we now have. One place to start is with the enigmas encoded in the life of its longest-lived exponent.

Why did Kolman defect? The answer depends, as always, on how seriously one takes the protestations in his autobiographical writings. There are four dominant explanations. The first answer is Stalin: the Soviet experiment was a crusade for social justice and an intellectual juggernaut based on Lenin's clear-sighted philosophy; Stalin perverted all that, and it took first Kolman's incarceration in 1948 and then the Soviet invasion of Czechoslovakia in 1968 to disillusion him from the political instantiation of what he considered a fundamentally correct philosophy.[89] This narrative played well in dissident circles and Kolman often invoked it.

The second explanation, related to the first and likewise often endorsed by Kolman, was the regime's cruelty in splitting his family apart. The most complete version of his memoirs (the Russian), ends with a lamentation about the Soviets' attempt to keep him from his daughter.[90]

The third was his experience during the campaign to rehabilitate cybernetics. For Dirk Struik, interpreting Kolman's apostasy from the Communist Party this way granted it a penumbra of intellectual legitimacy and insulated dialectical materialism from taint. As Struik put it in a January 1975 draft letter to Anatoly Dobrynin arguing for an exit visa for Kolman "in the spirit of Lenin, who always stressed the importance for marxists to study and if

88. On official silence, see Ilizarov, "Ernest Kol'man" (ref. 14), 198.

89. This is well articulated in the interview in Kovaly, "Arnošt Kolman" (ref. 16), 340.

90. Kol'man, *My ne dolzhny* (ref. 11), 360.

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necessary to adopt the truly valuable and scientific aspects of a theory," his position "has by now been completely vindicated."[91] Kolman's ability to rescue cybernetics from Soviet rejection was akin to his push to rescue Lenin from Stalin's dead hand. The only place he could do this, ostensibly, was outside the Soviet Union.

The final explanation, impossible to dismiss entirely, is opportunism. There is no question that after the invasion of Czechoslovakia, Kolman—as a Czech national (though naturalized Soviet citizen) with ties to the Prague intelligentsia—found his professional life constrained. Nauka, the publishing house of the Soviet Academy of Sciences, told Kolman in 1972 that they would not publish his massive manuscript, *The Problem of the Infinite*, and held up other articles.[92] Kolman repeatedly reiterated his biographical credentials (knowing Lenin, having attended the 1931 London Congress), to no avail.[93] From his pre-Sweden point of view, Kolman was perplexed by the taboo the invasion of Czechoslovakia seemed to cast over him. Given that he had been at loggerheads with many of the intellectual leaders of the Prague Spring that had preceded the invasion (part of the reason he had returned to Moscow), and the fact that his post-invasion limited correspondence with former Spring leaders—through his son-in-law, a physicist and foreign delegate of Charter 77—steered clear of more than casual encouragement, it is difficult to explain his defection entirely by the events of 1968, or to read his support of Czech dissidents from Stockholm entirely at face value.[94] Is it that unreasonable to suppose, when he found the Soviet state immovable, that ambition pushed him to hazard a career in the West?

How we interpret his alienation from the Party and the political regime that he dedicated the majority of his life to defending, sometimes unscrupulously, has implications for how seriously we take him as a thinker—and therefore, how seriously we take the commitment of philosophers like him to dialectical materialism as an intellectual (as opposed to a purely political/ideological) project. Fundamentally, this cannot be resolved from the available sources, precisely because so many of those sources are from Kolman himself. It is

91. Draft of a letter from Struik to Dobrynin, 12 Jan 1975, DS, MC 418, Box 7, Folder: "K-M."

92. Kolman, *Die verirrte Generation* (ref. 1), 247.

93. For example, Kolman's appendix to Ada Kolman-Janouch to Struik, 11 Dec 1974, DS, MC 418, Box 7, Folder: "K-M."

94. See the few Kolman letters reproduced in František Janouch, Martin Groman, and Daniel Štěpánek, eds., *Na smutek není čas: Korespondence mezi Františkem a Rivou Krieglovými a Františkem Janouchem a Adou Kolmanovou (1974–1979)* (Prague: Nadace Charta 77, 2009).

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impossible, in short, to come to a definitive conclusion about how sincere Kolman was, either in his Stalinist heyday or in his vituperative rejection of the same. This staunchly and consistently anti-religious individual claimed in the preface to the Russian edition of his memoir that it should "be something in the order of a confession which, as they say, a believing Christian can ameliorate his conscience. So then, I have no shortage of sins on my conscience. Perhaps if I try to self-critically repent of them publically, then in that other world the devils will show me a certain compassion during my roasting."[95] There is surely irony here, invoking the "criticism and self-criticism" (*kritika i samokritika*) trope of the Stalinist 1930s, but it is equally clear that Kolman did not intend to "repudiate everything in my works, there is in them also something positive, and sometimes I have introduced something toward the development of Marxist philosophy of mathematics and the natural sciences."[96]

Even the most uncharitable interpretation of these statements, however, cannot simply dismiss Kolman from our histories of twentieth-century philosophy of science. No less than Prague—an often-overlooked locale that saw the birth or adolescence of many of the logical empiricist doctrines that animated Western philosophy—the story of Czechs and others who went East and signed up for a different philosophy of science (and a different political ideology) must be integrated if we are going to produce an accurate account of the development of the discipline. Kolman's case indicates how crucial the experience outside of the Soviet Union was for disaggregating dialectical materialism from other aspects of communist rule, and therefore the story can only be told by incorporating perspectives from the Eastern Bloc, as well as East Asia. Along with martyrs and apostates, the story also requires its dark angels.

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95. Kol'man, *My ne dolzhny* (ref. 11), 7.
96. Kolman, *Die verirrte Generation* (ref. 1), 146.

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