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## Chocolate and Chess

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# Book Review

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Alex Bandy

*Chocolate and Chess: (Unlocking Lakatos)* Budapest: Akadémiai Kiadó, 2010.

476 pp. \$48.00 (hardcover).

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I didn't like Popper's recent underlining of the possibility that we may unknowingly hit upon the final truth. I was biased against this . . . thesis because it contradicts some of my pet ideas learned from Marxism (and I don't see why I should give these up).

Imre Lakatos ([1960] 1978b)

“Chocolate” in this book’s title refers to an ideological Soviet novel popular among Stalin-era communists, its message being self-sacrifice for The Cause. Imre Lakatos (1922-1974), the influential Hungarian émigré philosopher of science and mathematics, may have been incidentally motivated by the book to recommend the suicide of a young woman, Éva Iszák. Lakatos knew Iszák in 1944 when he led an underground communist cell of Jews hiding in northern Romania following the March 1944 German invasion of Hungary. The grotesque story of her forced suicide has been known outside of Hungary following the publication of a 1989 memoir by Iszák’s sister, the late Mária Zimán. That’s another 15 years beyond Lakatos’s death in 1974 at age 51, by then a world-famous philosophy professor at the London School of Economics. Lakatos had there followed his mentor Karl Popper, only to end up Popper’s fierce critic, the son who turned against the father. Along with contemporaries Paul Feyerabend and Thomas Kuhn, these four philosophers, for all their conflicts, were prime movers in philosophy of science debates during the 1960s and 70s who permanently revised our image of scientific theory and practice (Lakatos and Musgrave 1970).

*Chocolate and Chess* is the most detailed account to date of Lakatos's nefarious Hungarian life until his escape to England following the failed 1956 Hungarian Revolution. The book is brilliantly written, dense with detail, and of total fascination for students of Stalinism in general and the years leading to the 1956 Hungarian Revolution in particular. The Iszák tragedy is the worst of Lakatos's past, and no new facts suggest that Iszák's suicide was the result of anything but Lakatos' insane proposal, made to Iszák and cell members, that her suicide would be an effective means of diverting attention from their group, itself having difficulties concealing Iszák. Accompanied to the Debrecen woods by a young Lakatos disciple, Iszák took a cyanide drink and died there, her body discovered by a child some days later.

The events were known following the war to the Hungarian Communist Party, to which Lakatos belonged until his imprisonment in 1950. The crime was ignored. Lakatos went on to become a Party educational bureaucrat and powerful apparatchik, especially in a role subverting the distinguished Eötvös College, closed down, with Lakatos' help, because its administration would not accommodate dogmatic Stalinist principles. The intimidated Eötvös leader Deszö Keresztury was still bitter and angry in Budapest at Lakatos after 50 years, calling him the "mephisto" for bringing down the school. Lakatos, Keresztury said, "subverted the college and brought about its demise."

Lakatos was a classic Hungarian Stalinist intellectual. Like many others, he put his considerable gifts to work for the regime as ministry functionary, writer, and debater. He completed at Debrecen a "lost" doctoral dissertation, possibly purposely destroyed. Its topic, based on some of Lakatos's Hungarian publications, appears to be the sociology of science, oriented to ideas of Georg Lukács, arguably the most important Marxist philosopher since Marx, Hungary's leading intellectual, and largely a consistent opponent of Stalinist administrations.

As a Party member, Lakatos was not a top player. But Hungary is small, and he worked with many near or at the top, especially chief ideologue and Minister of Culture József Révai, who Lukács courageously engaged in public debate during the late 1940s over quickly waning intellectual freedom.

Lakatos, unlike all but like many, was also a consistent informer, including on closest friends. He informed as a prisoner for nearly four years at the horrible Resck labor camp and continued following his release. New detail is provided on Lakatos's informing, ultimately stuff of perhaps blackmail and harassment, but probably (or hopefully) not prison sentences or worse for those on whom he informed. Lakatos's arrest and imprisonment in 1950 was apparently (Bandy cannot tell for certain) caused by a carefully researched

plan, using evidence from publications, administrative decisions, and past speeches, to denounce Révai and perhaps move up the political ladder.

Revealing and dramatic summary transcripts of secret U.S. and British government interviews with Lakatos are here, ranging from about 1958-1963. These come from an early Cambridge interview, a U.S. visa application, and repeated failures by Lakatos to attain British citizenship. The interviewers are shrewd, finding Lakatos to be conniving and suspicious. Their concern was whether Lakatos was in any way still working in England for the Hungarian secret police, or even the military, but the evidence ultimately remains speculative. Nonetheless, Lakatos's continued attempts at British citizenship were denied because, while not considered a security risk, he was nonetheless evaluated as potentially disloyal. The Iszák incident, with Lakatos distorting his true role (e.g., that Iszák was ill and herself suicidal), is known to some of the interrogators, but a kept secret outside the interrogations. Some interviewers suspect greater, but unknown, involvement.

Bandy concludes his book strongly suggesting that Lakatos probably was still informing in England for the Hungarians. Supporting evidence may yet be found in unreleased or "lost" Lakatos files in Hungary, London, Moscow, or Washington. Bandy's speculation might be right, but it misdirects attention from Lakatos's actual subversion in England, which was intellectual rather than political. Lakatos was a "mole," all right, just a philosophical one.

After leaving Hungary, Lakatos's contribution to Anglo-American philosophy was innovative historicization of mathematics and science. Along with Kuhn and Feyerabend, Lakatos brought a rich array of historical materials into philosophy of science as its "data." They all helped transform philosophy of science into an exciting and productive hybrid of interdisciplinary thought. The historical turn completed the critique of logical positivism initiated by Popper in *The Logic of Scientific Discovery* (*Logik der Forschung* 1934, English revision 1959), which rejected a "foundational" view of science, seeing instead fallible conjectures and their refutations. The obvious historical perspective implied by that logical mechanism implying change was left for the post-Popperian generation. They also aimed to "refute" Popper's philosophy and logical positivism using history of science itself.

In mathematics, Lakatos's work of permanent genius is his 1961 Cambridge doctoral dissertation, published posthumously as *Proofs and Refutations: The Logic of Mathematical Discovery* (1976). The subtitle expresses the work's Popperian and antifoundational perspective on mathematical knowledge, traditionally viewed as a bastion of a priori certainty. Here and in his later philosophy of science, Lakatos's approach is more *historiographical*

than historical. There is much historical interpretation and theorizing, such as the steps by which mathematical rigor changed and improved over the course of nineteenth-century mathematics, leading to modern conceptions of mathematical proof. But, as any reader quickly sees, Lakatos reworks his historical materials through a maze of embedded quotation, temporal rearrangement of historical events and commentary, delivered through a remarkable and complex footnote apparatus detailing the “actual history” corresponding to the philosophical narrative. The latter is itself an intricate classroom dialogue involving a Teacher and 18 mathematical characters arguing about the proof of a single mathematical theorem.

The ostentatious rewrites of history, relying on considerable primary materials, occurred later too, in Lakatos’s philosophy of science, his so-called “methodology of scientific research programmes” (Lakatos 1978a). Methodology for Lakatos is but a reconstruction of history, a purposeful interpretation of past progress. But of just what historical events? Lakatos, in modernist spirit, quickly rejects any theory- or value-free history of scientific or mathematical achievement. Just as scientific facts are theory-laden, for Lakatos, historical reconstruction is value-laden by methodological categories of knowledge and progress: Kuhnian paradigms, Popperian falsifications, positivist facts and inductions, or research programs built of series of competing theories, models, heuristics, contradictions, ad hoc bulwarks, and corroborating or falsified predictions.

The game is to make enough sense of history through a set of normative, critical standards for the present, which become the measure of better and worse knowledge: Lysenko genetics and Scientology, not to mention vulgar Marxism, are “out,” but modern physics “in.” Popper had promoted the same normative view (e.g., to criticize 1930s Marxism and Freudian theory) through standards of falsifiable conjectures and refutations, but without the implied historical dimension. Lakatos’s own philosophical heuristic was to historicize Popper, making it more descriptive of historical science, but still a normative tool for exoteric criticism. That latter goal is today less popular with social studies of science, but remains important, as shown by the need for nonexperts to assess the progress of climate change research.

How are history and criticism combined as one? Lakatos’s methodology of scientific research programs is an historiographical toolkit, with which Lakatos rewrote several episodes from the history of modern science. Following his death, students of Lakatos published longer studies either validating or showing the limitations of research program concepts and criteria: particle versus wave theories of light, phlogiston versus oxygen, theories of heat, the reality of atoms, moving tectonic plates, various programs in economics. In

all cases, the goal is to see how judgments of progress occurred for better or worse, using Lakatos's principled approach as a guide. It is historical modeling, itself falsifiable or confirmable, ad hoc or principled, problem-anticipating or deflecting, and Lakatos emphasized the scientific status of his own historiographical program. So it is a "science" of critical history, minus any debilitating historical determinism or similar metaphysical baggage.

On the merits, Lakatos was among the first to recognize, among historians and philosophers, that the Michelson-Morley experiments on light and the "ether" were not, as often stated, central to the formation of Einstein's special theory of relativity. Contrary to received views some decades ago, these experiments were not understood immediately as "refutations," Popper-style, of prerelativity theories of light assuming the ether as transmitting medium. Einstein and Leopold Infeld in *The Evolution of Physics* (1938) called the experiments a "death blow" to the ether, a popular example of the post hoc view Lakatos saw as misleading. Rather, the relevance of the experimental work to relativity was only seen as the test setup and results were reinterpreted with historical hindsight. The experiments were designed to detect an expected "ether drift," or drag, on the speed of light, but none was found, and the search continued in the 1920s, well after the introduction of special relativity. The refutation of ether theories by relativity was a construction trailing Einstein's theoretical lead, showing for Lakatos the difficulty in telling what any isolated piece of evidence or theory meant on its own, including its logical status vis à vis refutation. Such holism, extended in time, also implied what Lakatos saw as a doomed philosophical search for "instant rationality." In another direction, studies including the early Bohr quantum atom demonstrated Lakatos's point that science progressed in a "sea of anomalies," true contradictions, which from a formal perspective are totally destructive. Rationality for Lakatos did not exclude using and thinking through inconsistent theories, since that may be the best one has. Such candor about how science actually works was anathema to philosophies relying on the representations of a logical calculus, another pillar of positivist thought. Lakatos's conception of rationality makes contradiction and historical hindsight intrinsic to scientific practice.

These methodological ideas were, again, advanced through Lakatos's strange histories, intended as the rigorous application of his theoretical approach. The complex footnotes, as in *Proofs and Refutations*, again "corrected" variances in the histories interpreted according to Lakatos's philosophical model. These "rational reconstructions" (a term from Rudolf Carnap) left some aghast, seeing a bizarre abuse of historical evidence. The historian Gerald Holton, in *Thematic Origins of Scientific Thought* (1973), sensed correctly, like Lakatos'

government interrogators, a suspicious yet indefinable undercurrent to the whole enterprise, redolent of inquisitorial mania. True to his Hungarian habits, Lakatos apparently lobbied against the support of particle physics research he thought to be not progressing. His judgment was completely wrong, as shown by rapid progress a few years later. Notwithstanding all that, intellectually, the puzzled critics missed a deep, if troubling and troubled, philosophical vision of self-formative history and its interpretations.

Bandy's book, and Lakatos's Hungarian past, clarifies the provenance of Lakatos's historiographical method and its philosophical importance. The rational reconstructions of scientific and mathematical history are the first of several clues to Lakatos's covert Hegelianism. Lakatos's stylized accounts are little philosophical histories, much like Hegel's of art, political theory, religion, and Western philosophy; or the combined histories of those in the *Phenomenology of Spirit*. The latter organizes a score of philosophical "shapes," or "gestalts," of knowledge. These are stereotyped versions of historically real epistemic standards of individual or social consciousness, forms of knowing, from the pre-Socratics to Kant and the Enlightenment, all organized via Hegel's historicizing lens.

Hegel emphasizes at the outset that his history is not meant as a real progression, it is definitely *our* reconstruction of the past, organized, by Hegel, as an "ontogeny and phylogeny" (as put by others later) of generic modern human consciousness. Hegel's great work is a philosophical-historical *Bildungsroman*, a "novel" of education and learning summarizing, through a philosophical pedagogy, modern forms of individual and social experience. *Proofs and Refutations* uses much the same historiographical technique, focused on nineteenth-century mathematics, with its dialogue form organizing many caricatured, historical "shapes" of mathematical reasoning. Lakatos's innovation is to track "actual history" in his footnote apparatus, with the temporally rearranged and schematized philosophical history in the dialogue above. It is a work of philosophic and literary genius, and mathematical depth. Lakatos's history is meant as a specific account of changes in standards of nineteenth-century mathematical reasoning, with the method of proofs and refutations described as a primary innovation generally mastered only after about 1840. The approach is not Hegel, but obviously Hegelian, just as in *Capital*, Marx's goal is to organize the historical formation of modern economic categories, not as "actual history," but conditionally and contingently, *given* their function in the present. A history of the present, as Lukács called it, whether of economics, or mathematics, organized by relevant constraints on historical change.

*Proofs and Refutations* was published first as journal articles in 1963-1964, with Lakatos then turning to the philosophy of science for which he is best known. For that, this equation is true: Lakatos is to Karl Popper as Marx is to the political economist David Ricardo. Marx took Ricardo as the pinnacle of current economic thinking, and made himself into Ricardo's successor (by making the labor theory of value central), while making economic categories historically specific and variable. Marx and Lakatos each historicize the tradition of their predecessor whose theories become an object of internal, so-called "immanent," critique. *Capital's* subtitle is indeed "Critique of Political Economy," with "critique" popularized earlier by Kant. That is how each historicizes a mostly ahistorical approach to either economics or philosophy of science. Introducing a central role for history was central to Kuhn, Feyerabend, and others as well. Lakatos just made use of ideas from a post-Kantian European sensibility, in contrast to Kuhn's eclecticism and Feyerabend's historical anthropology. All of that makes Lakatos an eminent crossover philosopher between Continental and Anglo-American traditions. The conversion of ideas is not obvious, and the concealment is part of the show. Bandy reports a post-'56 joke in the Hungarian Politburo: "Comrade Lakatos has gone to England to teach the Popperians philosophy!" And so he did.

The conception of Marxism as critical philosophy, rather than metaphysical history machine, is mainly due to the revisionist approach of Lakatos's teacher Georg Lukács. In his 1922 *History and Class Consciousness* (well known to Lakatos, according to Bandy), Lukács famously saw a concealed, or covert, Hegelian scaffolding, implying a nondeterministic and philosophically richer Marx. While wrong on some key details (Lukács's "reification" vs. Marx's "alienation" particularly), Lukács was mostly proved correct by the later discovery of Marx's unpublished manuscripts and their explicit Hegelian influence. Content aside, there is here a tradition of covert Hegelian philosophy and its revelation. Judging from publications during the 1940s, Lakatos's missing Debrecen dissertation looks also to be strongly influenced by Lukács, who once described Lakatos as a "disciple," though the two quickly ended up on opposite sides of political power. Counting the number of index entries in Bandy's book, Lukács is a close fourth, following Stalinist dictator Mátyás Rákosi, then Révai, and girlfriend Éva Lutter.

A major topic of Bandy's book, before the debacle leading to Lakatos's imprisonment, is his ideological expertise, including articles for the famous newspaper *Szabad Nép* (*Free People*). Lakatos was adept at contrived quotation, and at systematic and biased organization of people's ideas in polemical articles, including attacks on the distinguished Lukács. He also just made stuff up, that is, lies, much as did many journalists, writers, and politicians. A

protectively anonymous group of Eötvös students published a 1947 article fighting Lakatos in which they document how he took quotes out of context, falsified facts, and manipulated truth for political goals. The accusation of falsification was even repeated by communists politically aligned with Lakatos, but this is just how the Hungarian *Lebenslüge*, its life of lies, was constituted. As put by the writer Tibor Méray, like many other Hungarians reflecting similar sentiments, “Truth itself became warped.”

And then to England: Lakatos’s aggressive propagandistic style is also the basis for the historiographical methods applied to the philosophy and history of mathematics and science. Bandy’s biographical material shows exactly how Lakatos could do so much historical work so quickly in England, even given his considerable mathematical and scientific knowledge. Lakatos knew how to rewrite history, whether in its Orwellian-Stalinist form, or the innovative philosophical version animating his English language philosophy. Contemporaries of Hegel were confused, as were Lakatos’s readers later, at the mash-up of philosophical theory with “actual history.” That method, used also by Marx, receives its diabolical inversion in Stalinism, then returns in rational form in Lakatos’s post-’56 English-language philosophy. Lakatos, the ex-communist émigré, had every reason to dissemble his intellectual goals or their origins. His second intellectual father following Lukács was Popper, himself a great critic of Hegel and Marx in *The Open Society and its Enemies* (1945). With good reason did Paul Feyerabend, in *Against Method* (1975), label Lakatos a “Trojan horse.”

Once suspicions are taken seriously, a panoply of ideas from Lukács, Marx, or Hegel appear, rabbit-duck-like, in Lakatos’s writings (Kadvány 2001).

There are disguised quotations from Hegel in *Proofs and Refutations*. The mathematical history there is written, just like Hegel’s *Phenomenology*, as a philosophical *Bildungsroman*, with its “hero” a mathematical theorem and its proof through the vicissitudes of the nineteenth-century mathematics, from Fourier series to the birth of modern mathematical logic. This emphasis on historical *learning* through *error*, also found in Popper, is an admirable idea of Hegel’s, which Lukács correctly identified in the literary philosophy of Goethe, Lessing, and Schiller. Historical learning is at the center of Lukács’s interpretation of Hegel as providing for German romantic thought a philosophical and abstract version of the laudable concept of *Bildung*, jointly denoting processes of cultural invention via the individual, culture, history, and contingent change. That all gets neatly coordinated by Lakatos with countryman’s George Pólya’s ideas of mathematical heuristic, which Lakatos extends to the discovery of mathematical proofs, beyond Pólya’s methods of problem solution. Hegel, then Lakatos almost word for word, distinguished history of

events from their discursive representations, and emphasized their focus on the latter. The emphasis on knowledge “alienated” from its producers is a foundation of Hegel’s and Lakatos’s historical rationalism, conveniently reprised by Popper in his “third world” of objective knowledge. Married to *Bildungsphilosophie*, the rejection of ideas of romantic genius is explicit in Hegel’s anti-irrationalism, a main subject of Hegel’s “Preface” to the *Phenomenology*. That topic is prominent in Lukács’s 1954 book *The Destruction of Reason*, mentioned by Feyerabend as a favorite of Lakatos’s, who parroted Lukács’s anti-irrationalist polemics toward the end of his life, again to the puzzlement of colleagues. For Lukács, though he never admitted nor denied it, the anti-irrationalist theme was also a covert criticism of Stalinist irrationalism as a perverse inversion of Marxian rational history. Another gambit: Lukács in *History and Class Consciousness* criticized Leninist dogma by applying Marxism to itself (the acidic “peritrope” of ancient skepticism), implying that Marxism too was a transient form of historical knowledge, not permanent truth. Lukács’s classic indeed begins by asserting that *all* Marxian texts could be found in error, yet Marxism would remain, because Marxism is only about *method*. Lakatos then applies Lukács’s dialectical trick, using the methodology of research programs to assess itself against its philosophical competitors and the data of history, and so to “falsify” Popper’s methodological criteria, making those too part of history and its changing logic of scientific discovery.

There are some dozen or so applications or transformations of Hegelian or Hegelian-Marxist ideas in Lakatos’s work, whether he intended them or not. Most if not all have innovative, modern twists, all worth the effort of comparative history. *Chocolate and Chess* unfortunately pays zero attention, even to raise the question, of Lakatos’s intellectual, versus political, influences in Hungary, especially that of Lukács. Similarly unmarked is the relevance of Lakatos’s friend and mentor, Árpád Szabó, on whom Lakatos informed. More than a philologist, Szabó was an innovative historian of Greek mathematical method. He thought of ancient Greek math as Lakatos did for the nineteenth century: each looked for how critical ideas of mathematical proof developed historically, and the conceptual innovations needed to make them work. This neglect of Lakatos’s future in England, and the implied break with the past, reinforces an anti-intellectualism that is the bane of many Hungarians, self-censoring their Marxist past long after that has stopped being necessary.

When asked once about writing a memoir, Lakatos said he wanted first to understand how his life fit into that of Hungary’s history. The answer is that Lakatos’s English-language philosophy is the continuation of Lakatos’s Hungarian world, mediated by the ideas and intellectual traditions internalized through his short life. The role of Hungary, contrary to Bandy’s book,

does not stop with 1956 and exile. Hungary, Marxism, Hegel, Lukács all just continue, covertly, in the world of ideas.

Bandy emphasizes, as is well known to students of the times, how Hungary until 1956 was a world of perversely distorted truth. Many informed on many, including children on parents, friend on friend. Denouncements and stylized public “self-criticisms” were common. Financial and economic statistics were falsified to disguise gross economic mismanagement. The show trials, especially that of László Rajk, were epic faked productions managed in all details, including the newspaper reports or movie reels created by writers taken in by leaders and the secret police. Lakatos was a minor but influential player in this world. His English-language philosophy is a window into this world, because he shows how reason can heroically subvert irrationality and evil from within. *You must lie to survive* can be true for ideas too. Hungary 1956 was itself a subversion from within the elite of Stalinist writers taken in by communist ideology. Lakatos’s English-language philosophy is a gentle tutorial in the logic and methods of that diabolical world. Reason is here a mirror-image of its evil twin, epitomized by the irrationality of Hungarian Stalinism. Lakatos’s historical philosophy of science and mathematics is delivered through a complete life teaching traumatic lessons about human fallibility. Lukács and Lakatos shared considerable history and personal compromises, but mostly they are joined through their cunning intellectual successes in Popper’s third world of ideas. For all this they are together philosophers of the Hungarian Revolution of 1956. That is the hard and twisted truth for Hungarians to ponder.

“Two souls, alas, are dwelling in my breast,” Goethe wrote for Faust, “and one is striving to forsake its brother.” Lakatos was a Faust in reverse. First came the descent into the terrors and sins of Hungary. Second came the intellectual world of England, which then continues the wild life but in ideas. Lakatos’s philosophy transcends his life by repeating and transforming it, creating his own present as intellectual history. Faust’s Mephistopheles said he was criticism incarnate, the “spirit that negates.” That is the force which Faust embodied, taking him forward and downward, only to survive. Imre Lakatos did not just make a deal with the devil, he too became Mephisto himself.

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