

EMPLOTTING ANALYSIS

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Anita Burdman Feferman and Solomon Feferman, *Alfred Tarski: Life and Logic* (Cambridge: Cambridge University Press, 2004)

Murray G. Murphey, *C. I. Lewis: The Last Great Pragmatist* (Albany, NY: State University of New York Press, 2005)

The lives of analytic philosophers and logicians do not *prima facie* appear to be the stuff of popular intellectual biographies. Who but former students or specialists would want to know the details of lives devoted to academic pursuits that, so it would seem, all but exclude personal expression? Demonstrative cultural documents such as *Also sprach Zarathustra* lay claim to our attention in part because they are the product of minds in dynamic tension with the culture that surrounded them, but Gödel's undecidability proof, for example, owes nothing of its importance to its author's social or psychological life at the time he wrote it. The life of the analyst or logician would, in short, appear to be beside the point—window dressing at best, obfuscating at worst.

Yet, against all expectations, today the booksellers's shelves groan with bestselling accounts of analytical thinkers, accounts that attempt to place professional endeavour and personal development within a single optic. Although Andrew Hodges's *Alan Turing: The Enigma* was as an early forerunner, Ray Monk's striking portrait of Wittgenstein, along with his two-volume work on Russell, must be credited with setting the standard for this approach. Monk explicitly sought to demonstrate the interplay of abstract and everyday concerns in the lives of his two subjects. Ben Rogers's *A. J. Ayer: A Life* soon followed Monk's lead.

Precedents for the integration of technical and ethical preoccupations could in fact be found in the remarks of the luminaries themselves. Russell described his "monkish" devotion to the completion of *Principia Mathematica* as a substitute for "faith" and an "essential outlet for my rage for perfection."¹ Wittgenstein too linked the personal and the abstract—when asked by Russell one tumultuous

¹ Quoted in Ray Monk, *Bertrand Russell: The Spirit of Solitude* (London: Jonathan Cape, 1996), 194.

day whether he was thinking about logic or about his sins, he famously replied, “both.” Such warrants have allowed Monk and others simultaneously to highlight and to dismiss the expository dichotomy that confronts biographers of analysts. Doubt may be cast on “what the connections are between the spiritual and ethical preoccupations” that guided Wittgenstein’s life, “and the seemingly rather remote philosophical questions that dominate his work”; Ayer’s biographer might worry, in common with biographers of mathematicians and physicists, that “the connections between life and work must of necessity be fairly tenuous”; but, once a comprehensive survey is completed, we are assured that life and logic cannot be disentwined.² Monk argues that Russell’s immersion in mathematics and epistemology occupied just one part of a spectrum of strategies designed to overcome “his acute sense of isolation” and a fear of madness.³ Wittgenstein, in Monk’s telling, felt the problems of logic and philosophy were unwelcome but unavoidable impositions upon his psychic being—chimeras to be dispelled through rigorous clarification. Even Ayer’s lifelong denial of the relevance of philosophy to personal conduct is seen by Rogers as an attempt not only “to separate philosophy from life but to liberate life from philosophy.”⁴ In each case, it is claimed that the quality and meaning of the thinker’s life was inextricably tied to their analytical investigations.

Much of this is old ground for biographers of natural scientists and mathematicians: the battle against the specialist’s belief that for the scientist “the biographical is idiosyncratic and . . . in a fundamental sense trivial,” on the one hand, and, on the other, the tendency to tie life and work together in a moral register, wherein scientific biography serves as “a source of inspiring examples of intellect, character, and achievement.”⁵ Such views no longer hold water in the history of science; indeed, it has been suggested that the study of a scientist’s career path and intellectual choices is one of the best ways to get at the abstract systems of scientific knowledge to which they contributed.⁶ But what is arresting for the historian of philosophy is that the relation of life and work should have become a problem at all, let alone a problem posed in similar terms

² Ray Monk, *Ludwig Wittgenstein: The Duty of Genius* (London, Vintage, 1990), xviii; Ben Rogers, *A. J. Ayer: A Life* (London: Chatto and Windus, 1999), 2.

³ Monk, *Bertrand Russell*, xix. See also *idem*, *Bertrand Russell: The Ghost of Madness 1921–1970* (London: Vintage, 2000).

⁴ Rogers, *Ayer*, 3.

⁵ Charles E. Rosenberg, “Science in American Society: A Generation of Historical Debate, with Headnote and Afterword,” in Ronald L. Numbers and Charles E. Rosenberg, eds., *The Scientific Enterprise in America: Readings from Isis* (Chicago: University of Chicago Press, 1996), 2–20, 16.

⁶ Charles E. Rosenberg, “Woods or Trees? Ideas and Actors in the History of Science,” *Isis* 79 (December 1988), 564–70.

to those of scientific biography. Given the cultural importance of philosophy in the West, this is a problem for the layman, too. We care about science because of its instrumentality, but we care about philosophy because it speaks to our moral and knowing selves—it matters to us how the doctrines on offer were lived and realized in time. Raymond Geuss has recently underscored the traditional view that “philosophy and life are connected and are to be integrated in various distinctive ways. It is not just that Stoics and cynics hold and try to defend different theories or propositions, but the life of a Stoic has a different shape from that of a cynic.”⁷ It is therefore a testament to the changes in philosophical attitudes effected by the analytic tradition that many writers suppose that the historical lifeworld inhabited by a philosopher impinges on the content of their thought as at best one of its external preconditions, and not as something essential to its contemporary pertinence.

This attitude toward philosophical biography and intellectual history remains dominant among contemporary analytic philosophers, but since the 1980s a number of scholars have argued for a more prominent and constitutive role for history in the ongoing development of the analytic tradition. And they have done so, by and large, through intellectual biography, thereby paving the way for subsequent studies of the interaction between social history, biography, and conceptual change in the history of analytic philosophy.⁸ Much like the popular biographies mentioned above, the best of this work has sought to demonstrate that abstraction in thought can be freighted with psychological, cultural, and political significance. Malachi Haim Hacoheh’s magisterial biography of the young Karl Popper is the foremost recent work in this literature. According to Hacoheh, Popper’s doctrines in the philosophy of science and political philosophy belong not to the canons of positivism or Cold War liberalism, but to a cosmopolitan, social-democratic, and “nonfoundationalist” tradition rooted in the vibrant intellectual culture of interwar Vienna. This is a Popper, Hacoheh believes, who offers the academic left a model of pluralist politics and epistemology far superior to that provided by post-structuralism. In a similar vein, philosophers of science have in recent years tried to recover the progressive political and cultural

⁷ Raymond Geuss, “Neither History nor Praxis,” in *idem*, *Outside Ethics* (Princeton, NJ: Princeton University Press, 2005), 29–39, 30.

⁸ See especially Hans D. Sluga, *Gottlob Frege* (London and New York: Routledge, 1980); Peter Hylton, *Russell, Idealism, and the Emergence of Analytic Philosophy* (Oxford: Clarendon Press, 1990); Alan W. Richardson, *Carnap’s Construction of the World: The Aufbau and the Emergence of Logical Empiricism* (Cambridge: Cambridge University Press, 1998); Alan W. Richardson and Gary Hardcastle, “Introduction: Logical Empiricism in North America,” in Gary L. Hardcastle and Alan W. Richardson, eds., *Minnesota Studies in the Philosophy of Science, Volume XVIII: Logical Empiricism in North America*. (Minneapolis: University of Minnesota Press, 2003), vii–xxix.

program of the Vienna Circle. Some have claimed that logical empiricism was depoliticized after it immigrated to the United States in the 1930s, especially in the face of academic McCarthyism. Analytical thought is once again denied distance from the course of (personal or social) history.⁹

Yet, in the attempt to make historical sense of the lives and works of analysts, there remains a tendency to drift away from the shores of social context when logical or philosophical problems are at issue. The further one slips into an exposition of *Principia Mathematica* or *Logische Syntax der Sprache*, the greater the sense of discrete gestalts—life on one page and logic on the other. This occupational hazard is compounded by another dynamic of social distancing in the history of analytic thought: professionalization. This is the process that hovers behind the contrast between Geuss's Stoics and the twentieth-century analysts. Professionalization, many historians have argued, explains what would appear to be the decisive removal of the humanistic thinker from the realm of deliberative democratic discourse. Enmeshed in the protocols and politics of academic disciplines, the student of human affairs has lost the perspective and sympathies of those who participate in the public theatres of social action. Brilliant though their thought may be, must we not leave the Rawlses and Quines to their typewriters and refrain from locating them within the bustling civil society in which they seldom if ever tried to expend their intellectual capital? The professionalism that came ever more to dominate the lives of committed thinkers after World War II would appear to reinstate the dichotomy between technics and ethics that Monk, Hacoen, and others did so much to repudiate for analysts of the pre-World War I and interwar years. Their subjects now seem to be special cases. For most of those who came after Russell, the regimentation of working life by the routines of teaching, administration, and publishing, in combination with the rise of the research university, has restricted the social resonance of intellectuals's non-professional lives. The intellectual biographer is therefore often compelled to limit herself to conceptual exposition, with perhaps an anecdote here or there.

The tendency of life and work to undergo narrative separation in the presence of professional protocols and esoteric techniques is manifested in two recent contributions to the history of twentieth-century analytic thought. The first is Anita and Solomon Feferman's *Alfred Tarski: Life and Logic*, a portrait of the revered Polish logician noted for establishing the discipline of metamathematics. The second is Murray G. Murphey's study of the eminent Harvard philosopher

⁹ Malachi Haim Hacoen, *Karl Popper—The Formative Years, 1902–1945: Politics and Philosophy in Interwar Vienna* (Cambridge: Cambridge University Press, 2000); George A. Reisch, *How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic* (Cambridge: Cambridge University Press, 2005).

Clarence Irving Lewis. Whatever their differences, the two books bear one striking, and revealing, structural similarity: a sharp division between expository and biographical passages. In Murphey's *C. I. Lewis*, most of Lewis's non-philosophical life is consigned to a series of brief "notes," sandwiched between longer chapters on Lewis's major works. The Fefermans, by contrast, prefer to cordon off explanations of Tarski's contributions to metamathematics and semantics from the main narrative of the Polish logician's career. These choices are in part determined by the markets to which the texts are pitched. Murphey's monograph belongs to the academic literature that includes Peter Hylton's book on the young Russell.¹⁰ It is concepts and their applications that matter most here. The Fefermans, on the other hand, are going for the non-specialist audience captured by Monk, a strategy made plain by the dust-jacket endorsements from Monk himself and Andrew Hodges. So they avoid clogging up the narrative with lengthy expositions of relation algebras, and house the technical stuff in a series of "interludes" that might be marked with a health warning to their lay readership—"caution: may contain mathematical symbols." Divergence over tactics notwithstanding, however, it is the shared strategy of dividing the personal and the professional that is most striking about the architecture of both books. What does this move tell us about the dilemmas of emplotment in the history of analytical ideas?

Both Murphey and the Fefermans offer detailed and engaging portraits of their subjects. Lewis and Tarski were born a generation apart, and in different worlds. Clarence Irving Lewis grew up in marked poverty in and around northern Massachusetts during the last years of the nineteenth century. In his early teens he began to find himself "beset" with philosophical "puzzles" of a general nature, unrelated, it would seem, to the harsh nature of his existence (21). Harvard was the place he hoped would shed some light on these puzzles, and the college obliged by admitting him. Lewis began his studies at Harvard in 1902, when Royce and James were in their pomp. In his third year Lewis took a course on metaphysics in which the two men slugged it out, James making his case for pragmatism and humanism, Royce countering doggedly with his theologically informed idealism. Lewis was most impressed by the "voluntaristic strain" in matters of epistemology that he found in the positions of both and later observed that his own "conceptual pragmatism" and general philosophical world view "may have taken shape under the influence of that course" (22–3). For financial reasons, upon graduation Lewis was compelled to take up an instructorship in English at the University of Colorado rather than pursue graduate studies. Lewis eventually returned to Harvard in 1908 to read for a PhD in philosophy. At this

¹⁰ See note 8 above.

point, James had retired but Royce remained. The latter's abiding influence on Lewis was augmented by that of Ralph Barton Perry, one of the leaders of the New Realist school, who had joined the Harvard faculty whilst Lewis was in Colorado.

Contrary to what he thought was Royce's idealist position, Perry held that the act of knowing an object was not constitutive of the object known; objects of knowledge—that is to say, reality—existed independently of knowers. Perry developed his realism further with reference to his teacher William James's doctrine of radical empiricism. Experience presented us directly with objects of cognition, but those objects moved in and out of experience, now entering into the relationship of knowledge with a knowing subject, now outside conscious experience. This was a gloss on James's point that both the "thought" and the "thing"—subject and object—were roles played by a single slice of "pure experience" when a certain set of relations (which in turn derived from experience) were placed upon it. On this reading, one could not render objects dependent upon their concepts, a move that Perry saw as the fundamental error of idealism. As Murphey shows, however, Royce's absolute idealism was much more nuanced than Perry's rather stereotypical reading would suggest. That the world was Ideal in character was for Royce proven by the necessity of positing an Absolute Mind to account for the ability of finite human beings to refer to, or rather to "intend," things—which Royce called "individuals." Only in the mind of the Absolute could the individual that was imperfectly intended by our concepts be actualized, and only by the Absolute could the infinite series of determinations that constituted a concrete individual be known. Both knowers and objects of knowledge were for Royce "ideas in the mind of the Absolute," and in this sense the world was indeed ideal (12–13). Perry's charge that Royce fell into the typical idealist fallacy of making the existence of objects dependent upon their being known therefore slighted Royce's skilful argument for the necessity of an Absolute Mind as a precondition of the human ability to refer to the world. The sophistication of Royce's idealism was not lost on Lewis, but nor were its defects. Lewis was launched on an attempt to develop a theory of knowledge that could combine the insights of Royce, James, and Perry whilst avoiding the errors and dogmas of his teachers, a project that was aided by Lewis's belief that the three men overlooked the common ground they shared.

Murphey argues convincingly that Royce and idealism were the formative influences on Lewis's early philosophical development. Royce remained, even after Lewis had moved far away from idealism, "my ideal of a philosopher" (22). Notably, however, it was not just Royce's treatises on metaphysics that Lewis admired. Royce introduced Lewis to the flourishing field of symbolic logic, which by 1910 was on the eve of perhaps its greatest achievement: the publication of Russell and Whitehead's *Principia Mathematica*. Royce viewed modern logic as a "General Science of Order" and seized on findings in the logical foundations

of geometry to develop an abstract formal system that he hoped might serve as “a mathematical model of the mind of the Absolute.” Lewis did not accept the metaphysical uses to which Royce put symbolic logic, but like his mentor he was convinced that new work in logic and the foundations of mathematics had profound implications for epistemology, and, among other readings, he devoted himself to the study of the three volumes of *Principia* as they appeared in print. Both sets of interests—the theory of knowledge and mathematics—found their way into Lewis’s 1910 doctoral dissertation, “The Place of Intuition in Knowledge,” although, as the title suggests, the emphasis was very much on epistemology. Even as it presented arguments that led Lewis away from idealism, its depiction of concepts as intending an infinitely specific transcendent object, unknowable in its entirety by a finite human mind, bore the mark of Royce’s influence. Lewis was placed at the University of California at Berkeley in 1911, where he spent a decade as an instructor and then assistant professor, developing his own system of symbolic logic and working out his relation to idealism. Lewis and his young family struggled financially, but Clarence’s life began to settle down into the routines of a stable academic career. In 1920 Lewis was called back to Harvard, where the relative deprivation that had characterized his early life receded as he moved up through the ranks to associate and, in 1930, full professor. He remained at Harvard until his retirement in 1953, whereupon he returned to the California he had fallen in love with forty years earlier. The beats of Lewis’s life after 1920 were marked out by publications and intellectual engagements; world affairs mattered to Lewis, but they did not much condition the course his philosophy took, nor did they impinge greatly on his everyday existence.

The story of Alfred Tarski’s formative years offers a striking contrast with that of Lewis. Tarski was born in Warsaw in 1901 to a prosperous, partially assimilated Jewish family. The family name, with which Alfred lived until his early twenties, was Teitelbaum (or, in the Polish spelling, Tajtelbaum). Culturally, the Teitelbaums had ties both to the Jewish community in Warsaw and to the wider social milieu of the Polish *haute bourgeoisie*. Although the family observed Jewish religious traditions, their primary language was Polish; they lived not in the Yiddish-speaking Warsaw ghetto but in the heart of city’s commercial district. Alfred’s adoption of the Polish-sounding name “Tarski” in 1924 was, as the Fefermans point out, to some extent a consequence of his upbringing, which had taught him identify himself as “very decidedly Polish rather than Jewish” (9). The renewed nationalism of the 1920s intensified the desire of many Jews in Poland to repress their ethnic identity. The adoption of a Polish moniker “was an ideological statement” (39). But Alfred had other reasons for changing his name: he became Alfred Tarski on the eve of receiving a doctorate based on his proof of the completeness of first-order logic. Alfred had excelled throughout his *gymnasium* education. At the University of Warsaw he identified mathematics

and logic as the subjects in which the faculty was strongest; they were also the fields in which bright and ambitious young men such as Alfred Teitelbaum could rapidly distinguish themselves. As is well known, interwar Poland was home to a number of pioneering logicians, notably those gathered around the so-called Lvov–Warsaw school of logic and philosophy. The founder of this group, Kazimierz Twardowski, was a professor of philosophy at the University of Lvov, and he trained many of the men who later taught Alfred in Warsaw. Tarski's mentors Jan Łukasiewicz, Stanisław Leśniewski, and Tadeusz Kotarbiński all passed under Twardowski's tutelage. Alfred won the respect of his professors and moved rapidly to take the PhD, but anti-Semitism was rife in the academy, as elsewhere in Polish society during this period, and it was clear to Alfred that his chances of gaining a job would be harmed if he kept his Jewish surname. Thus Alfred Tarski was born, just in time for his name to appear on the doctoral diploma that Alfred Teitelbaum had won.

Despite the name change, and a burgeoning reputation, Tarski struggled throughout the rest of the interwar years to secure a chair teaching logic and mathematics in Poland. At the University of Warsaw he worked his way up from the position of docent to that of adjunct professor, but a full professorship eluded him, in part because there were so few chairs to be had, and in part because certain Polish universities did not wish to appoint Jews. Nonetheless, the late 1920s and 1930s were high times for Tarski. He acquired a wife, Maria, in 1929, and participated fully in the Polish avant-garde subculture that centred on the alpine town of Zakopane. Here logicians mixed with musicians, novelists, and sundry other intellectuals. All the while, Tarski published influential papers on a range of problems in logic, set theory, and algebra, including seminal proofs of the completeness and decidability of elementary algebra and geometry. This work soon began to attract the notice of logicians and philosophers outside Poland. He was invited to speak to the Vienna Circle in 1930, and thereafter joined the network of scientific philosophers whose members could be found in locations as far a field as Berlin, Boston, and Oxford. Indeed, it was the unity of science movement that drew Tarski—but not yet his wife or two children—out of Poland as Nazi Germany and the Soviet Union closed in on it in 1939. Tarski sailed to the United States in August that year to participate in the International Congress for the Unity of Science, which was being held at Harvard. When Hitler's armies launched their assault on Warsaw on 1 September, Tarski was transformed from a delegate into an exile. He spent the war years living an itinerant existence that took in short-term appointments at Harvard, the City College of New York, and the Institute for Advanced Study. Eventually, in the autumn of 1942, he entered what would become a permanent position in the Department of Mathematics at the University of California at Berkeley. It was at this point that the second phase of life opened for Tarski. He was at length reunited with his family, and began to

build a school of logicians and philosophers of science at Berkeley. He remained in California for the rest of his career, where he cultivated an aura of greatness that attracted generations of students.

The life of each man is in its own way remarkable. The range and complexity of Lewis's philosophical thought becomes even more striking when one notes that it came more or less from nowhere, contextually speaking. Lewis was the son of a shoemaker and the brother of a truck driver; although Harvard provided obvious stimulation to Lewis, his thought thrived in isolation, which required both a certain distance from the social scene in Cambridge and the strict separation of work and family life. In Tarski we find a dynamic figure whose life encompassed many of the world-historical events of the twentieth century. The challenge for biographers is somehow to orient the rather recondite and technical writings of Tarski and Lewis toward the world in which their lives took shape.

In one sense, the genre of biography makes this a straightforward task. The biological arc of a human life provides a ready-made narrative container into which heterogeneous materials—a theorem of logic, say, and the experience of exile—can be poured without having to be reconciled. Moreover, intellectual biographers may avail themselves of a further narrative template: the sequence of writings and publications produced by an intellectual over the course of their career. But in another sense the biographical form makes the challenge of locating Tarski and Lewis within intellectual history more difficult, insofar as the life of an intellectual will be conditioned by both “internal” cognitive events and an everyday existence that is defined by the historical period in which it takes place. Biography thereby forces the issue of the relationship between these two levels. In addition, a more historical problem of biographical narrative arises from the issue of professionalization in American intellectual life. As mentioned above, with the rise of the research university and disciplinary specialization it became possible to live within self-contained and autonomous intellectual networks. The life of a professional academic thereby begins to conform to the familiar routines of teaching, conferences, and publishing. This is of course an important historical process in its own right, but it would appear to attenuate the material that biography has to work with. How, then, do the two books under review cope with the mixed blessings of the genre?

Murphey's primary aim in *C. I. Lewis* is to provide a comprehensive account of Lewis's philosophical development. Biography serves Murphey's purpose because it frames his discussion of Lewis's evolution as a thinker, but the causal factors in Murphey's account of this evolution are drawn not from Lewis's life experiences but from philosophical discourse. This explains, at least in part, why Murphey holds the biographical material at arm's length from the philosophical exposition. It is not that Murphey wants to claim that Lewis's thought unfolded in a transhistorical realm of pure ideas; on the contrary, one of the chief delights

of the book is Murphey's description of the way in which Lewis was able to update and refine forms of philosophy (American idealism and its offshoot, pragmatism) born in the post-Civil War era for the very different intellectual and cultural world of the interwar and postwar years. Rather, what strikes the reader about this intellectual biography is that its major actors are abstract ideas: Kantian philosophy, symbolic logic, logical empiricism, and so on.

The results of this approach are in many respects remarkable. Almost half a century ago Murphey wrote a seminal account of the development of C. S. Peirce's thought that was distinguished by both its analytical depth and its thoroughness.¹¹ His book on Lewis may one day be thought to surpass the Peirce study on both counts. How many intellectual historians have the technical knowledge to devote two chapters to explicating Lewis's writings on modal logic, which play such a central role in his theory of knowledge? And how many philosophers or logicians would take the care to go through—so it seems—every word or symbol, published or unpublished, that Lewis committed to paper? These are the virtues that Murphey brings to his text. It is hard to imagine any future scholar of Lewis, or indeed twentieth-century American philosophy, not needing to refer to this book. By dint of this comprehensiveness, however, it is hard to encapsulate the overall argument of the book; at times it seems that Murphey is more interested simply in making Lewis's philosophy available as a whole than in presenting a tightly integrated argument. Much of the book consists of sequential commentaries on Lewis's *oeuvre*. Many paragraphs begin with locutions such as "In Chapter I . . .," "In Chapter II . . .," and "In a paper entitled . . .," and proceed on to an extended exposition. What this means is that one can find very useful and detailed summaries of Lewis's published works, but reading through four hundred pages becomes something of a struggle.

Nonetheless, *C. I. Lewis* is more than a reference work. As the title indicates, Murphey believes Lewis belongs in the line of illustrious pragmatists that begins with Peirce and runs through James and Dewey. But whilst the last three have in recent years received "renewed interest" from a burgeoning "neo-pragmatic movement," Lewis, their greatest heir, has been overlooked (406–7). For Murphey this is especially lamentable because Lewis's pragmatism was forged in contestation with theoretical trends in logic and the human sciences that have only recently begun to fall out of favour: positivism, emotivism, extensionalism, and relativism of various stripes. Because Lewis sought alternatives to these positions that preserved the fundamental insights of the pragmatist tradition whilst incorporating new developments in epistemology and the exact sciences, he is a figure worth revisiting now that the fashionable doctrines of the last

¹¹ Murray G. Murphey, *The Development of Peirce's Philosophy* (Cambridge, MA: Harvard University Press, 1961).

thirty years have begun to fade away. This is a bold argument, but should we be convinced?

It is hard to doubt Murphey's fundamental claim that Lewis renovated pragmatism and equipped it with analytical tools that made it a viable—if ultimately underappreciated—philosophical position in an era when American philosophers looked to logical empiricism, Quinean naturalism, and ordinary-language philosophy for the issues of the day. What is most striking about Murphey's account is that he shows that Lewis's pragmatism derived not from a prior commitment to James or Dewey, but, rather, from the study of symbolic logic. Only after thrashing out his "conceptual pragmatism" in his 1930 treatise *Mind and the World Order* did Lewis seek to make common cause with Dewey. In the first half of the book Murphey traces Lewis's transition from an early idealism to a "form of 'humanism' that emphasized the active role of the human mind in the construction of our knowledge of reality" (112), and then, in the 1920s, a final move into a pragmatism that emphasized the role of freely chosen conceptual and categorical systems in the construction of knowledge. Lewis was provoked into this shift by his attempts to derive a system of symbolic logic that could avoid the problematic definition of "implication" in the system of *Principia Mathematica*, and offer a more realistic model of valid inference in logical reasoning. In the *Principia* Russell and Whitehead had defined the relationship of implication—whereby one proposition is said to imply another—in such a way as to lead to paradoxes that violated the ordinary understanding of scientific inference.¹² For example, it was a consequence of Russell and Whitehead's definition of implication that a true proposition was implied by *any* proposition. This conclusion would in principle make it impossible to deduce the logical consequences of a hypothesis in science, because its truth could be inferred willy-nilly from any other statement (70). In the face of these and other problems with the *Principia*, Lewis sought to establish a system of logic on new foundations. But in developing this system—an intensional logic that he called "strict implication"—Lewis came to realize that in its own terms the system of the *Principia* was consistent, much like Euclidean and non-Euclidean geometries were internally consistent, and that the only reasons one could possibly have for preferring one model over the other would have to be pragmatic. We pick the one that fits the interests we have when we seek to know the world around us, but nothing in sensory experience can tell us which is the "correct" logic. We choose to apply them or not. The same is true of the categories by which we classify the sensory given. Thus it was logic that taught Lewis to be a pragmatist.

¹² The precise definition given, in the notation of the *Principia*, was $(p \supset q) = (\neg p \vee q)$. Roughly translated, this theorem asserts that the statement "*p* implies *q*" is equivalent to the statement "either not-*p* or *q*."

Having arrived there, Lewis proceeded to explore the implications of his position for value theory and ethics as well as epistemology, a project that led him both to absorb and ultimately to reject the scientific theories of the émigré logical empiricists and their followers.

We are undoubtedly in the presence of a singular and sophisticated pragmatism. But it seems doubtful that it can serve the purposes of theoretical reorientation in the human sciences, as Murphey suggests. The central issue here is one of audience. The fact is that if one wants to understand Lewis's pragmatism one needs to understand his work on symbolic logic. If Murphey's goal is to encourage professional, analytically trained philosophers to read Lewis again, this poses no great problem. But if, as is implied by his reference to the "neo-pragmatic movement," Murphey wishes to engage the spectrum of historians, literary critics, and social theorists who have found inspiration in the life and works of James and Dewey, then it seems likely that the forbidding technical complexities of Lewis's philosophical system will prevent any wider renaissance in Lewis studies. Moreover, aside from professionalism and a few stray opinions on eugenics, there is nothing in Lewis's life as a career academic that is exemplary or of wider significance. On this matter, the contrast with the lives of James and, especially, Dewey is particularly sharp.

The Fefermans's *Alfred Tarski* runs into some similar problems, but from a different direction. Recall that they have chosen to place the technical material in a series of brief interludes. As it happens, these interludes are models of clear exposition. In particular, the summary of the text of Tarski that is most likely to be known to a non-mathematical audience, "The Concept of Truth in Formalized Languages" (often called the *Warheitsbegriff* after its widely cited 1935 German translation), is especially useful to those who do not wish to trawl through the original. But the book stands or falls on whether Tarski-the-great-man can engage the reader. The Fefermans portray him as a brilliant, vain, and charismatic thinker with insatiable appetites. He took the license of a genius to bend his students, associates, and family to his will, and subjected his long-suffering wife (and female graduate students) to years of extramarital dalliances. Something of Tarski's wicked humour and enormous self-regard is captured in his remark, late in life, that he believed himself to be "the greatest living sane logician"—a not-so-subtle dig at his friend Kurt Gödel (5). At the very beginning of the book, the kind of model the Fefermans have in mind for Tarski is made explicit: "In a way, he resembled Picasso. And, like Picasso, Tarski had supreme confidence in his talent and vision; he conceived of his work in terms of art as well as science and believed in the eros of the intellectual" (1–2). The reticence of this analogy ("In a way . . .") tells its own story. Tarski's pill-popping, womanizing, and general self-aggrandizing are enthralling, in a gossipy sort of way, and his brilliance as a mathematician and logician are beyond question. But Picasso,

logic, art, and eros? I would suggest that Tarski's life cannot bear the narrative weight thus placed upon it.

A distinction here will be useful. The first half of the book, which covers the period up to the end of World War II, draws many pertinent and arresting parallels between Tarski's intellectual development and wider events in European history: anti-Semitism, central-European nationalism, philosophical and artistic modernism, and exile are all integral to the story. The Fefermans handle this material tremendously well. But once Tarski settles down in Berkeley, the second half of the narrative becomes dominated by a series of reports of conferences, academic institutional politics, and sketches of the conveyor belt of Tarski's graduate students (one of whom was Solomon Feferman). Consider the following characteristic account of a congress of the Division of Logic, Methodology, and Philosophy of Science held at Stanford in 1960:

The list of speakers and disciplines generated palpable excitement; new personal contacts were made and new interdisciplinary sparks generated. These were enhanced by the many dinners and parties that were arranged informally as well as by several group excursions that were organized for the weekend. (255)

Group excursions, indeed! We are a long way from Picasso now. Mundane professionalism snares the attempt to make Tarski into a Russell or Wittgenstein, just as it vitiates the desire to make Lewis into a James or Dewey.

The preceding remarks should make clear that the separation between life and logic in the two books rests not on an absolute need to segregate the two forms but on the aims of the authors. Murphey is interested in philosophical exposition, for which biography provides a platform, whilst the Fefermans wish to construct a portrait of genius. That said, the task of narrating the lives of the technically inclined professional academics of mid-to-late twentieth-century analytical philosophy forces biographers to formulate strategies of accommodating the typical modes of intellectual biography to increasingly specialized discourses and professional patterns of existence. This is a tall order, but it is also one that may help to promote innovations in intellectual biography. Ray Monk's synthesis of the psychological and intellectual lives of Russell and Wittgenstein shows us that new narrative strategies can result from a productive tension between biographical form and its subjects. As the bathos of the second half of the Fefermans's book on Tarski makes clear, however, Monk's formula does not work as well with mandarin figures. When it comes to the lives of post-World War II logicians and philosophers, the best approach may be to thematize precisely those developments that frustrate the integration of life and work. The quotidian routines of an academic life should be neither unduly dramatized nor ignored, but rather evaluated as one of the central conditions in which the thinking of modern intellectuals takes place, and through which their relationship to society

at large is, at least in part, defined.¹³ Similarly, it will not do to segregate the technical writings of philosophers or logicians from the rest of their social world, or to present their move toward mathematical logic as natural or inevitable. What we need instead are accounts of how and why figures like Lewis and Tarski, not to mention the better part of the postwar anglophone philosophy profession, became so invested in symbolic languages. In Murphey's bravura description of Lewis's modernization of the pragmatist tradition, and in the Fefermans's recounting of Tarski's empire-building at Berkeley during the 1950s and 1960s, we get a glimpse of what future biographies of analysts might look like. But the challenges of employment in this field remain to be faced.

¹³ Historians such as David Hollinger, Thomas Haskell, and Bruce Kuklick have examined the consequences of professionalization for American intellectual life, but each has concerns that lie some distance from the challenges of intellectual biography *per se*. Hollinger is interested in the modern academy as a site of the de-Christianization of American culture, Haskell views the academic professions as institutions that allow for objective knowledge claims in the natural and social sciences, and Kuklick, finally, has invoked professionalization as one of the factors leading to the triumph of "technique" over "vision" in American philosophy. Whilst not directly addressed to the issues outlined in this review, these projects stand as examples of how apparently technical or "academic" matters have broader cultural resonance, and may thereby be worthy of treatment in their own right within the genre of intellectual biography. See David Hollinger, *Science, Jews, and Secular Culture: Studies in Mid-Twentieth-Century American Intellectual History* (Princeton, NJ: Princeton University Press, 1996); Thomas Haskell, *Objectivity is Not Neutrality: Explanatory Schemes in History* (Baltimore, MD: Johns Hopkins University Press, 1998); Bruce Kuklick, *A History of Philosophy in America, 1720–2000* (Oxford: Oxford University Press, 2001). For the best recent treatment of the cultural and social significance of the academic professions in postwar America see David Hollinger, ed., *The Humanities and the Dynamics of Inclusion since World War II* (Baltimore, MD: Johns Hopkins University Press, 2006).