

Susanne K. Langer, The Vienna Circle, and *The Practice of Philosophy*

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Abstract

At the center of the genesis of Thomas Kuhn's landmark ideas in *The Structure of Scientific Revolutions* (1962) is the tug of war between Arthur Lovejoy and Bertrand Russell where the former emphasized historical treatment of science and the latter represented a purely logical view of the scientific enterprise. Within this context, I trace Kuhn's point of contact with Susanne K. Langer in the archival materials at MIT, to find that in one of Kuhn's undergraduate papers written for H. M. Sheffer's course, an acknowledgement of Langer: "I have derived considerable assistance from the clear exposition in Susanne K. Langer's *Introduction to Symbolic Logic*" (TSK-MIT Box 1, Folder 3). Another point of contact with Langer is Kuhn's reading of Langer's *Philosophy in a New Key* along with other books by April 1949 (Reisch 2019, 160). The book was, among others, inspired by Ernst Cassirer "that pioneer in the philosophy of symbolism" (Langer 1948, preface). Finally, this paper attributes the genesis of *Structure* with the historical thinking of figures such as Alexandre Koyre and Arthur Lovejoy and albeit indirectly with the historicism of Ernst Cassirer. Langer's departure from philosophical logic can be attributed to her acquaintance and cooperation with Cassirer on his work. It is in this sense that Langer becomes an actor in "Kuhn's Harvard" as the amalgamation of European and American historicist thought, which *Structure* eventually resolved.

According to Sander Verhaegh, symbolic logic had always played a role in Harvard's philosophy curriculum, but it had a limited impact (Verhaegh 2024, 22). In time, "[T]he academic landscape gradually started to shift in the years after the First World War" (21). With that shift, the intellectual climate changed rapidly as well at Harvard:

The department hired several philosophers who had contributed to the development of symbolic logic—H. M. Sheffer, C. I. Lewis, and A. N. Whitehead—and Harvard quickly began to be viewed as a central hub for analytic philosophy in the United States (21).

Susanne Katherina Langer was born in 1895 (as Susanne K. Knauth) had studied at Radcliffe College under Sheffer and Whitehead. Many instructors of the Radcliffe College also taught at the neighboring Harvard University. In 1926, She obtained her PhD in philosophy from Radcliffe College (established in 1879 as a college for women). Langer had Alfred North Whitehead as her dissertation advisor in 1924. Langer's parents were German immigrants even though she was born and raised in the United States. German language was spoken at home and she had a great command of the language.

Tracing Kuhn's point of contact with Langer in the archival materials at MIT, we find in one of Kuhn's papers written for H. M. Sheffer's course, an acknowledgement of Langer: "I have derived considerable assistance from the clear exposition in Susanne K. Langer's *Introduction to Symbolic Logic* (1937) (TSK-MIT, Box 1, Folder 3). Another point of Contact with Langer is Kuhn's reading [or sifting through] of Langer's *Philosophy in a New Key* along with other books by April 1949 (Reisch 2019, 160). The book was, among others, inspired by Ernst Cassirer "that pioneer in the philosophy of symbolism" (Langer 1948, preface).

Because of her family background and impeccable command of the German language "Langer's intellectual context would also have included German influences on her thought: philosophers such as Ernst Cassirer, Edmund Husserl, and Ludwig Wittgenstein" (Verhaegh 2024, 26). Langer had advocated a pluralistic conception in her *The Practice of Philosophy* (1930), which may indeed be attributed to Langer's Radcliffe Harvard education. "For Lewis and Sheffer, too, had defended variants of pluralism and were known for their pragmatic conception of the *a priori* " (25). Quine attending meetings of the Vienna Circle in 1933 had been surprised that they were reading Langer's book [*The Practice of Philosophy*] (27). Moritz Schlick singling out the book's method "the method of logical analysis, will be the only method of future philosophizing" (27). Schlick had valued the "author's exquisite style, lucid, fluent and brilliant, has been a source of real joy for me" (27). Rudolf Carnap had expressed interest to work with Langer once in the United States and had noted in his diary that Langer "used her first meeting with the by-then German philosopher to ask him about Frege" (27). Herbert Feigl called Langer's discussion group "*Langer Zirkel*" and had "told Schlick that it reminded him of the *Wiener Kreis*". "She is an excellent woman and her versatility is admirable" Feigl writes (27). Elsewhere Feigl wrote in a letter that "She reminds me a bit of Wittgenstein in her demeanor, in her intuitive determination, and in the biblical conciseness of her statements" (28). I venture to say that Kuhn in his acknowledgement of Langer with expressions "considerable assistance" and "clear exposition" points to her unquestionable philosophical prowess observed by those who had either read or met her.

Langer wrote an article in *Fortune Magazine* (see Langer 1944) and had been corresponding with Ernst Cassirer. In a letter on February 15, 1944, Cassirer thanks Langer for the article and writes:

Ich habe ihn mit großem Interesse studiert und mich an der grundsätzlichen Übereinstimmung unserer Auffassungen gefreut. Die Einwilligung zu Ihrer Übersetzung meiner Schrift „Sprache und Mythos“ gebe ich natürlich mit Freuden (Cassirer 2009, 229).

Langer translated the book into English as *Language and Myth* (1946) one year after Cassirer's sudden death. In the introduction to the book, she writes:

Reason is not man's primitive endowment, but his achievement. [...] I offer the translation of this little study [...] both as statement of a new philosophical insight and as a revelation of the philosopher's work: his material, his technique, and the solution of the problem by a final flash of interpretive genius (Langer 1946, ix, x).

It must now be obvious that Susanne Langer was highly respected in philosophical circles of the late '20s and '30s not only because of her background in philosophical logic and the eagerness with which some of the members of the Vienna Circle interacted with her, but also because of her personality. Expanding on Verhaegh's assessment, one could perhaps interpret Langer's change of philosophical interest – roughly towards the end of the World War II – as a sign of a shift away from “trends” in philosophical logic. It appears that at least with Langer, this “shift” may have begun with Langer's interest and acquaintance with the work of Cassirer. Kuhn's points of contact with Langer are indicative of making both Kuhn and Langer part and parcel of the Harvard hub and a party in the historicist scientific “strand”.

Now, enter Jean Piaget. Elsewhere, I have reconstructed Kuhn's thought on the finding of Piaget (see Basafa 2025, 92-106) for which there is not ample time for in this presentation. But such a reconstruction is intended to show that in the interaction with Piaget's experiments on kids, the young Kuhn went beyond the *gestalt* to expose what Kuhn discovered for himself as the ‘fringe of vague meaning’, which, first, was not only inspired by the philosophical awareness, trends or what I would call ‘textbook knowledge’ of the time, but, second and most importantly, Piaget experiments on kids were at the service of a strategy

to show that scientific activity was not only a purely logical undertaking, but that it also harbored elements that escaped clear, quasi “rational” definitions entirely. It is illuminating to note that Kuhn’s ‘fringe of vague meaning’ of the late 1940s resonates Langer’s notion of ‘insight’ in her book *The Practice of Philosophy* of 1930. Langer’s book had dedicated the entire chapter VII to ‘Insight’. In fact, one could say that this chapter, in a sense, vindicates Kuhn’s deep and persistent interest in this and other similar concepts, i.e., Polanyi’s tacit knowledge, or the ineffable in Wittgenstein. Again, Kuhn had, at least, read two books by Langer, namely, *Philosophy in a New Key* (1942) and Langer’s *Introduction to Symbolic Logic* (1937). It is not known to me that he had read Langer’s *The Practice of Philosophy*, but Langer’s assertions in the book, at the least, point to the philosophical awareness of the time and her great interest in Cassirer’s philosophy. Langer wrote:

Through the symbolic act or image, an important past event plays into the later history of the organism, without being discursively known. But I maintain that such formulation of an idea is knowledge in a wider sense—it acts as a stimulus, puts us into rapport with a past event just as a proposition might be (Langer 1930, 164).

She justified the above in the following way:

There is no knowledge without form; and probably no form is unique; therefore all knowledge can find symbolic expression. But it is the types of expression rather than the organ of recognition that determines the difference between insight and inference. [...] A scientist of genius is a person who can apprehend a new concept through some natural medium for whom there are unprobed patterns [...] which some enlightened psychologists have recognized as the principle of “Gestalt,” and which is “form” in a really general sense (165-166).

She then concluded the chapter by saying that there is nothing “alogical” about this process:

I do not see why, in the case of intensive [as opposed to extensive] symbolism, where the meaning is sometimes incommunicable, the process of understanding should be classed as “alogical” [...] the personal discovery of meanings through myth, ritual, and art, highly individual and

awe-inspiring by its subtlety, is the very acme of logical procedure, and the refinement of intelligence. (166)

No doubt, the source of language of myth for Langer is Cassirer. There are several references to Cassirer's *Philosophie der symbolischen Formen* (1923-1929). She writes:

The kernel of a myth is a remote idea, which is *shown*, not stated, in the myth. It is only the myth that is stated in words. Ernst Cassirer has made this point excellently clear in his "*Philosophie der symbolischen Formen*" [...]. (158)

Further, Langer also dedicated the bulk of chapter V titled "The Logical Basis of Meaning" to Wittgenstein's *Tractatus* (1921). The point is that Kuhn's "fringe of vague meaning" as well as similar concepts such as the "ineffable" or "tacit" or relating to "insight," *gestalt*, or symbolic form, was either a "craze" (to use Feyerabend's expression) of the time, or the "craze" was already part and parcel of the philosophical awareness of the time when discussing how science worked? I would vouch for the latter. For Kuhn, the question remained, however, that if science had such an "unspeakable" element, how did scientists chose among relevant theories?

The thesis I am harping on is that Kuhn's Harvard educational background and the genesis of *Structure* was the result of Harvard's "melting pot" of ideas harboring diverse strands of thought, which included both European and American philosophical strands. There were strands originating in Harvard's early days with its Kantian-inspired pragmatism as well as the logical strands that were later developed early in the last century with Sheffer, Russell, Whitehead, and Langer. Elsewhere, I have traced a direct line of Machian historicist thinking (see Basafa 2025, 45-56), which was passed on to Harvard's George Sarton, who had a direct influence on James B. Conant, Harvard's president at the time and Kuhn's mentor by quasi passing on the baton to Kuhn through Conant's General Education program. There were also the early reviewers of *Structure* such as the prominent historian of science Marie Boas-Hall, whose book Kuhn had used in his courses. In her review, Boas Hall had pointed to traces of Comte and Sarton in *Structure*. Philipp Frank was another prominent figure who connected the dots for the 'Unity of Science' at Harvard

— a Machian program, no doubt. Throughout this narrative, we need to keep an eye on Harvard pragmatism in the background and as a point of reference. A comparisons of Alexandre Koyré's historicism and Arthur Lovejoy's impeccable passion for intellectual history as well as his incessant anti-Russellian battles in countering neo-realism is indeed inevitable.

Now, a word or two on Harvard's critical realism and the overall picture of the genesis of *Structure*. I mentioned at the outset that a tug of war between Arthur Lovejoy and Bertrand Russell where the former emphasized historical treatment of science and the latter represented a purely logical view of the scientific enterprise, defined Harvard's pluralistic educational environment. In many respects, Lovejoy was fundamental in forming Kuhn's historicist thinking, which suggests that it was Lovejoy that not only formed Kuhn's historical thinking (as Kuhn had acknowledged) but that he also shaped Kuhn's philosophical thinking as evidenced by Kuhn's correspondence on March 17, 1955 with Lawrence S. Kubie, a New York psychiatrist and family friend (see Basafa 2025, 65). Even though Lovejoy is associated with American critical realism, which may have been neo-Kantian in origin as Matthias Neuber (see Neuber 2023) has suggested, I submit that American critical realists were too far removed from its alleged origins, both in terms of time and concrete influence, to be acknowledged as such – and particularly as it relates to the narrative I have suggested. Consider Roy Wood Sellars assertions in 1929 on what critical realism is:

The whole position is a frank physical realism very different from Kant's construction (Sellars 1929, 451).

Nevertheless, Kant's philosophy was so foundational that neo-Kantianism and its traces, no doubt, persisted in philosophies that followed – even if it meant going beyond Kant. In the words of James Bissett Pratt (one of the authors of *Essays in Critical Realism*, 1920):

For nearly a century idealism in some form or other dominated philosophy. Almost all the thinkers of to-day were brought up under its influence. Realism was banished from text-book and class-room except as a "terrible example," [...] (Pratt 1920, 88).

In short, I would argue that *Structure* owes its genesis not *only* to European historiography, some of which was no doubt propagated by prominent neo-Kantians such as Cassirer, but also to an amalgamation of many other strands of American philosophical thought. Sellars' words early in the century on 'interpretive function', echoed Kuhn in the mid-50s:

But, surely, perception is more than this. It is an interpretative response to an object. The stimulus aspect is just the beginning of true perception. [...] (452). These objects are present to the mind (known) but not in the mind. They are not noumena in any Kantian sense (Sellars 1929, 451).

As far as philosophy of science and perhaps its "overcoming" is concerned, there are further points of reference, some I have emphasized, which were not only of special importance to Kuhn, but was also instrumental for him in eventually elegantly assimilating ideas on how science works. I suspect that the nodes of assimilation in question, are Piaget's developmental psychology, and Ludwig Fleck's "textbook science" in *Entstehung und Entwicklung einer wissenschaftlichen Tatsache* (1935) as well as Kuhn's becoming acquainted with the works of Emile Meyerson, Leon Brunschvicg and Alexandre Koyré that presented for Kuhn a different and unaccustomed way of looking at history as it related to science. The Lowell Lectures (1951) offered Kuhn an early arena to give form to his early ideas in a public setting. One must therefore note that the genesis of *Structure* went even beyond the cast of characters Kuhn had on occasion mentioned; this may indeed strain Micheal Friedman's approach in finding casts of characters with Kantian background to advance his overall strategy of a post-Kuhnian philosophy of science *primarily* by way of Kant – using critique of Kuhn's philosophy of science as a springboard. I therefore find Friedman's strategy too general or too narrow a path to go beyond Kuhn. In contrast to Friedman's approach in (see Friedman 2001), I have placed the emphasis on historical awareness or historicism (Kantian in origin or otherwise). Indeed, I have shown that the evidence points to historicist thinking, particularly of course as it related to science. The figures who championed Kuhn's historical methods of choice, his "Honor List" if you will, were major actors very early in the century, and part and parcel of the historicist, historiographical era I have alluded to – and one that I submit was elegantly resolved as Kuhn's own brand of philosophy of science in *Structure*. Cassirer too, as a neo-Kantian, was very much aware of the science

of his day, as well as having a very deep sense of historicism. He was therefore not only an integral part of the continental European strand, but also crucial in generating debate with his contemporaries, e.g., debates with Koyré on Platonism. But again there were others such as Koyré who were not Kantian or neo-Kantian but contributed greatly to the historicist tradition and new historiographies; Koyré was pivotal to Kuhn and the genesis of *Structure*. Amid all of this, Harvard pragmatism was also the subject of debate as critical realists including Lovejoy had debated the role of Pragmatism and its position towards Idealism and Realism. In criticizing Dewey, Lovejoy writes “A consistent pragmatism must recognize”:

That, if a real physical world having the characteristics set forth by natural science is assumed, certain of the contents of experience, and specifically the contents of anticipation and retrospection, cannot be assigned to that world, and must therefore be called “psychical” (i.e. experienced but not physical entities) (Lovejoy 1920, 76).

I have associated the genesis of *Structure* with the historical thinking of figures such as Alexandre Koyré and Arthur Lovejoy and albeit indirectly with the historicism of Ernst Cassirer. Langer’s departure from philosophical logic can be attributed to her acquaintance and cooperation with Cassirer on his work. It is in this sense that Langer becomes an actor in “Kuhn’s Harvard” as the amalgamation of European and American historicist thought, which *Structure* eventually resolved.

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Archive Material

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