

Formalism and Structuralism, a Synthesis: the Philosophical Ideas of H. B. Curry

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The call for the conference “The Emergence of Structuralism and Formalism” contrasts *formalism*, which it describes as the manipulation of meaningless symbols, with *structuralism*, which it describes as treating mathematics as a subject with a subject matter.

H. B. Curry identified himself as a formalist, probably because of the influence of David Hilbert (under whose direction he earned his doctorate in 1928–29), but believed that all mathematical statements have a definite subject matter. What really distinguished Curry’s views is that he thought that the only subject matter that mathematics has is generated by mathematics itself. This might lead to a view that we humans are programmed to engage in some mathematical activity, and this is where mathematics starts.

In this talk, I propose to present quotations from Curry’s work, both published and unpublished, that illustrate his views on the nature of mathematics. The quotations from his work which are best known all date from the early part of his career; I plan to include material from later in his career.

I expect to show that Curry is better considered to be a kind of structuralist than a formalist the way those words are used today.