

Condensed Thesis of forthcoming book 'Semantic tradition of pictures to syntax to inferences'

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Following Reza Negarestani, the aim of this book is to argue for a Kantian-Hegelian idealism, but where historical epochs are divided into the three temporal periods of Michael Friedman's "dynamics of reason": metascience, revolution and philosophy. The first temporal period, metascience, is explicitly Kantian in terms of the (mathematical) presuppositions behind formulating physical theories (Kant had said geometry was a priori). This time period (the epoch of metascience) is structured by a transcendental logic which necessitates a "synthetic a priori" of existent mathematical knowledge in order to "philosophically refashion" it into scientific theory. While universally valid during this period, this a priori is relativized as new scientific revolutions occur. The second period is scientific revolution. Then, the final period is deliberation on the aftermath, which Friedman calls the period of "philosophy." I claim the overarching temporal teleology/progress through the entirety of the three periods is explicitly Brandomian-Hegelian, while the first period is Kantian. **The central thesis of this book is that this metatheory for scientific progress can be expressed through the language of Homotopy Type Theory/Univalent Foundations (HoTT/UF).**

Moreover, due to the wide scope of (in particular *linear*) homotopy type theory (using quantum natural language processing), **this metatheory can be applied not just to scientific progress, but ordinary language or any public language** defined by sociality/social agents as the precondition for the realizability of (general) intelligence via an inferential network from which judgement can be made. How this metatheory of science generalizes to public language is through the recent advances of quantum natural language processing, but the traditional metalogical encodings (of Tarski) is relatively comparable through universes such as the **type of types** or **type of types of types** found in the inherent inferentialism of UF/HoTT via ∞ -groupoids. The "computational trinity" of proofs=programs=algebra in HoTT also means reason is defined functionally as "what it does" by what it computes (proofs are programs). Following Negarestani's recent book, through the self's self-realizability, achieving self-consciousness and consciousness beyond selfhood, "geistig manifestation" is achieved in the form of general intelligence, but only through an inferential network of social agents intrinsically encoded through computation.