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Beyond the Schism of Value Form and Labor Form in AI Studies and the Humanities: A Response to Critical Inquiry

Marc Kohlbray's review of my *The Eye of the Master* (2023) for the journal *Critical Inquiry* characterizes the book's attempt to write a "socio-technical history of AI" from below as an impassive and uncaring research agenda. He claims that the "methodology is not geared toward elevating the voices of those immiserated by these technologies or their predecessors, nor is it ultimately interested in unpacking how AI may be formally modeled on capitalist labor or management."¹ This passage—excerpted and broadcast via *Critical Inquiry's* social media—represents a blatant *political reversal of the book's research agenda*. How is such an ideological reversal possible? How is it possible that a book that advocates for an emancipatory agenda is read in exactly the opposite way?

The Eye of the Master and its *labor-form theory* implicitly questions the *value-form theory* that has become dominant in critical theory and is also pursued by the reviewer in other works. In a diversionary move, rather than disclosing and addressing this postulate, the reviewer accuses the book of a lack of ethnographic research (which is neither the purpose nor the method of the book). In order to contextualize and understand the review, it is necessary to focus on *the schism between value-form and labor-form theories* that currently affects the humanities (a schism that will hopefully be repaired one day).

The comment about the missing "voices of the immiserated," written on a platform supported by the University of Chicago (where *Critical Inquiry* is based), twists the knife into the central thesis of the book: the *labor theory of automation*. This theory states that automation and technology in general do not develop by applying science from above or through a solitary genius's intuition, but rather by capturing the form of the division of labor itself. According to this theory, the design of machines gradually emerges and develops from the abstract diagram of social cooperation, i.e., from the movements of bodies, tools, and human relations. This theory was common in nineteenth-century political economy and shared by Adam Smith, Charles Babbage, and in particular Karl Marx. In the book, *the labor theory of automation is interrogated to recognize the intellectual and epistemic import of the subaltern classes*, often neglected in the history of science and technology.

The Eye of the Master relates this labor theory of automation also to a value theory of automation. The so-called Babbage principle (which also inspired Marx's idea of surplus value) states that the division of labor (and therefore any machine) helps to calculate the exact amount of labor to purchase from each type of worker. This principle suggests that any machine implicitly embodies a metrics of value and a corresponding social hierarchy of skill. It is true that money is the first and foremost form of computation in our lives, but machines also enter into the game of measurement, valorization, and



Bill Gates's summer reading recommendations.

hierarchization. It's by bringing these two perspectives together—a combined labor and value theory—that we can highlight “the voices of the immiserated” in the logic of automation. But in the reviewer’s opinion, these perspectives operate in opposite directions.

Commenting about the missing “voices of the immiserated” always risks mocking authors and scholars who come from a working-class background (like myself,

incidentally). In a surreal comparison, the reviewer quotes Kate Crawford (who works for Microsoft Research) as a scholar of labor exploitation studies and exemplary ethnographic work.² As the introduction to *The Eye of the Master* clarifies, the book is not so much a *social history* (it does not pursue co-research, ethnographic methods, or a sociology of labor, for instance) as a *socio-technical history* that investigates the epistemic nexus between labor and technology and envisions a potential for

emancipation that is not found in technology per se but in social autonomy.

The book, in fact, rebukes the theory of power that is common in North American academia, defining it as “a history ‘from above’ that focuses on only the techniques of control and rarely the subjects on whom this control is exercised.”³ The book criticizes the attitude of condemning oppression in a self-victimizing tone without addressing actual paths toward emancipation (see, for example, theories of surveillance capitalism, which are necessary, of course, but not sufficient). Following Gramsci, the book argues that the subaltern should not simply dare “to make history” or “to speak,” but to do *epistemology at the highest level* as well. Such optimism of reason (*mea culpa*) goes unrecorded yet is castigated by the reviewer.

To understand the reviewer’s friendly fire, we need to understand the schism between value-form and labor-form theories in AI studies and the humanities. In fact, in the past I have criticized some derivative applications of value-form theory in science and technology studies.⁴ I tried to argue that the evolution of information technologies (including AI) stems from the politics of labor and its metrics, not from the value form or money form per se. I present here three examples of a logical fallacy that, in my opinion, affects both labor theories and value theories.

In the 1930s, commissioned by the Frankfurt school, Franz Borkenau wrote a book arguing that the paradigms of the scientific revolution (such as mechanical thinking) were directly influenced by the social abstraction of the division of labor.⁵ Famously, Henryk Grossmann intervened to castigate such a superficial “labor theory” and to stress that the mediation of economy and technology is crucial to understanding the relationship between labor and science.⁶ Grossmann has since become canonical reading in the history and philosophy of science.

A few decades later, Alfred Sohn-Rethel argued that the abstract notions of Greek philosophy were born at the same time as the first circulation of minted coins, positing a homologous relation between the money form and the form of thought.⁷ More recently, Seb Franklin has explained the rise of “digitality” by pointing to the “informatics of value,” positing once again an isomorphic relation between value form and the form of information.⁸

One can see that the issue at stake here is a certain *isomorphism*, a style of *thinking per analogy or homology*. In scientific inquiry and the humanities, it is common to encounter such thinking per analogy at the beginning of a hypothesis, though usually not in the construction of a thesis. Thinking per analogy is found, for example, when cybernetics declares that machines can be built like organisms because organisms are like machines. Or when structuralist anthropology defines social hierarchies as

homologous to language, because language is a social relation, etc.

Value-form theory has seen rising success in critical theory circles. Emerging with the *Neue Marx-Lektüre* in Germany and even earlier, value-form theory is a paradigm that posits the form of value (as commodity form or money form) as the center of social ontology (shifting Marx’s focus from the sphere of production to circulation). It is not possible here to recapitulate the whole debate (for the most recent and comprehensive account see Søren Mau’s *Mute Compulsion*).⁹ In this theory, the unit of political analysis is the idea that capitalist society is structured around the axis of the wage-labor relation, and the political synthesis is the abolition of wage labor (nothing to disagree with here).

The problem is that when such a unit of analysis is considered central to any particular form of human civilization, it suggests that the structure of signs, techniques, and abstractions reflects *intrinsically and directly* the money form. Is language (or any other human cultural form) structured according to the value form? Maybe it is influenced *by* the value form, but to say that thinking is structured *as* the value form is a shallow inference.

For example, Marc Kohlbry, in his reading of the French group *Tel Quel*, explores “a homological analysis of the sign and commodity forms.” Referring to the work of Jean-Joseph Goux, he discusses how “the opposition between signifier and signified is homologous to the ‘scission’ between use value and exchange value.”¹⁰ Similar positions had currency in French structuralism and were partially criticized in post-structuralism.¹¹ It would be surely beneficial to revive this debate today.

Some may think that *The Eye of the Master* pursues an obliteration of the value-form dogma in academia and is therefore aligned with a retrograde agenda, because ultimately it gives emphasis to cooperation as a vector of positive emancipation (*sic!*), rather than to the value form in the abstract (which is the only and unique topic for many scholars today). I cannot help thinking that I refuse such a style of binary reasoning. It is not value theory that we have to oppose to labor theory, as they can hardly be separated. Let’s end this sabbatical from the living contradictions of labor politics (which I hope we don’t end up delegating to Microsoft R&D).

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The Eye of the Master: A Social History of Artificial Intelligence (Verso, 2023).

- 1
"Marc Kohlby Reviews *The Eye of the Master*," *Critical Inquiry Book Review*, May 30, 2024 https://criticalinquiry.uchicago.edu/marc_kohlby_reviews_the_eye_of_the_master/.
- 2
See Yarden Katz, *Artificial Whiteness: Politics and Ideology in Artificial Intelligence* (Columbia University Press, 2020), 79.
- 3
Pasquinelli, *The Eye of the Master: A Social History of Artificial Intelligence* (Verso, 2023), 12.
- 4
Pasquinelli, "Labour, Energy, and Information as Historical Configurations: Notes for a Political Metrology of the Anthropocene," *Journal of Interdisciplinary History of Ideas* 11, no. 22 (2022).
- 5
Borkenau, *Der Übergang vom feudalen zum bürgerlichen Weltbild: Studien zur Geschichte der Philosophie der Manufakturperiode* (Felix Alcan, 1934).
- 6
Grossmann, "Die gesellschaftlichen Grundlagen der mechanistischen Philosophie und die Manufaktur," *Zeitschrift für Sozialforschung* 4, no. 2 (1935).
- 7
Sohn-Rethel, *Geistige und körperliche Arbeit: Zur Theorie gesellschaftlicher Synthesis* (Suhrkamp, 1970).
- 8
Franklin, *The Digitally Disposed: Racial Capitalism and the Informatics of Value* (University of Minnesota Press, 2021).
- 9
Mau, *Mute Compulsion: A Marxist Theory of the Economic Power of Capital* (Verso, 2023) 64, footnote 57.
- 10
Kohlby, "Semantic Materialism, Linguistic Value: Tel Quel's Jetsam," *Cultural Critique*, no. 117 (Fall 2022): 32.
- 11
François Dosse, *History of Structuralism* (University of Minnesota Press, 1997).