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Situating Krippendorff's Critical Cybernetics

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Abstract: This Open Peer Commentary on “A Critical Cybernetics” by Klaus Krippendorff outlines that enacting alternative not-yet existing realities goes beyond discourse and can be considered design practice. A Critical Cybernetics for enacting alternative not-yet existing realities, such as Krippendorff proposed, would benefit from associating itself with the expertise in the technicity of society that has been central to cybernetics since its inception.

1. Klaus Krippendorff's presentation “Agency, Algorithms, New Forms of Oppression and How Cybernetics Might Respond” given at the 2019 conference of the American Society for Cybernetics (ASC) in Vancouver, Canada, could be seen as the beginning of a renewed emphasis on the centrality of critical self-enquiry in cybernetics. While I could not attend the conference in Vancouver, the video recording of the talk, which is available at <https://www.youtube.com/watch?v=PehTApQ1l5>, provides a good overview of Krippendorff's core arguments.
2. Krippendorff's talk (30'45) underscored circularity as a fundamental cybernetic principle, tracing its roots from the steam engine catalysing the Industrial Revolution to the mechanical feedback systems of Heron of Alexandria and the circular mechanisms regulating ancient oil lamps. According to Krippendorff, Norbert Wiener did not invent circularity, but he devised a mathematics capable of handling iterative self-reference. Cyberneticians deal with systems or machines that maintain their identity amidst perturbations. However, as Ashby (1956: 2) wrote, the interest is only to some extent in existing human-made machines: “Cybernetics [...] takes as its subject-matter the domain of ‘all possible machines,’ and is only secondarily interested if informed that some of them have not yet been made, either by Man or by Nature.” For Krippendorff, Ashby's emphasis on systems yet to come is important. Designing processes rather than merely formalizing them through mathematical descriptions is considered to be key for cybernetics.

3. His presentation (30'45) further included an exploration of agency akin to the target article. Agency, according to Krippendorff, is only observable in accounts of agency. Human agents may offer accounts of their actions and inactions to others either in anticipation of being held accountable or in response to requests for accounts. Accounts may establish or deny human agency.

4. Krippendorff concluded his talk (23'–30') with a list of applications of technology deemed inherently oppressive, encapsulating society in unquestioning compliance. Technological innovations wielding significant influence over the everyday life of humans span from those creating “simple extensions of the ranges of human activities,” including writing systems, the telephone, email, and social media networks, to those serving as “amplifications of routine human efforts,” such as calculators, spell checkers, search engines, and GPS navigation systems. Technologies, such as bank teller machines, automated customer services, self-driving cars, robots, automated stock-market trading, and automated testing services in educational settings, have displaced roles formerly fulfilled by human agents. While these technologies are frequently embraced for their utility, their operation supports large institutions over which individuals have no influence, often yielding unintended social ramifications. Despite this, individuals commonly embrace technological innovations uncritically, deeming them indispensable.

5. Had the present target article, written to provide an account of critical cybernetics,¹ included the introduction of the 2019 presentation, it would have been easier to understand how this new form of critical enquiry is also cybernetic. The 2019 presentation by Krippendorff contextualized critical enquiry within cybernetics, outlining the nuances of key cybernetic ideas, such as circularity, feedback, and agency. The Vancouver presentation adeptly positioned Krippendorff’s critique within the context of cybernetic expertise, which includes expertise in the societal development that has immersed individuals in technologically driven processes to which they unquestioningly conform. Without this context, critical cybernetics, with its emphasis on language and its stated aim to reveal oppressions enacted through language, could easily be understood as a programme of deconstruction or applied deconstruction disguised by a new name.

6. Many disciplines have developed expertise in language and discourse. For linguistic anthropology, how language relates to agency and to the making of society is an essential question (Ahearn 2001). Many philosophers since Immanuel Kant have considered language and agency, as well. When Theodor Adorno, after the Second World War, suggested that writing “a poem after Auschwitz is barbaric,” the statement related to the complicity of language in the Holocaust (Adorno 1981: 34). When Paul

¹ As Tom Scholte and Ben Sweeting (2022) outline, the term “critical cybernetics” was proposed by Scholte in a discussion with Krippendorff at the 2019 conference in Vancouver. It was adopted and became the headline of several subsequent presentations by Krippendorff.

Celan nevertheless wrote poetry in German, he did so by reinventing poetic language (Lévinas 2003).

7. In several passages, Krippendorff refers to critical cybernetics as a discourse or a language. It is a discourse that continues Margaret Meads's concern of cybernetics as a transdisciplinary language (§1), a discourse concerned with alternative realities and a language that enacts (§2), extending cybernetics to "expand the concerns of traditional cybernetics into the domain of the social" (§22). In the same paragraph, Krippendorff specifies that the concerns with not-yet-existing alternatives are a form of criticality. According to Krippendorff, critical cybernetics is emancipatory because it liberates human actors from "undue constraint on their agency" (§22). Critical cybernetics as discourse enables meaningful narratives (§31). While it is clear that neither discourse nor language is primarily theoretical, §26 suggests that Krippendorff's understanding of critical cybernetics as a discourse or language that enacts alternative not-yet existing realities makes it a design practice.

8. Krippendorff emphasized cybernetics as a project that cannot be apolitical when he suggested that cybernetics requires a reconfiguration that makes critical discourse central. Yet, if critical cybernetics were primarily social discourse, it would forgo the expertise it has developed in the technicity of society, in the creative, critical making of technical objects, and in the critical reflection on the technology that is part of everyday life. There is a history of critical reflection on the technical object and its relation to society, which goes back to Wiener, the founder of cybernetics. Moreover, as a transdisciplinary endeavor, cybernetics has always integrated expert knowledge from a variety of disciplines. Likewise, those engaged in critical cybernetics would benefit from speaking to experts on language and discourse.

9. Criticality, whether in the tradition of the Frankfurt School (of which Adorno was a member) or in the French post-structuralist traditions, is reflection. It is bound to language. Krippendorff's text makes no reference to the critical traditions of the past. Thus, it is not yet clear how critical cybernetics differentiates its approach to language from other critical approaches to language, such as the one developed by deconstruction, for example. The unique contributions of critical cybernetics to expertise in language or discourse will need to be clarified.

10. I find it unfortunate that Krippendorff refers to the history of cybernetics quite generally as "uncritical" (§§22, 47). This choice of language potentially alienates those who could integrate a more explicit programme of critical, creative enquiry into cybernetic practice, as it dispossesses cyberneticians of the agency and responsibility that Wiener granted them when, in 1950, he published *The Human Use of Human Beings* (Wiener 1989).

"I can only state what I myself and those about me consider necessary for the existence of justice. The best words to express these requirements are those of the French Revolution: Liberté, Égalité, Fraternité. These mean: the liberty of each human being to develop in his freedom the full measure of the human possibilities embodied in him; the equality by which what is just for A and B remains just when the positions of A and B are interchanged; and a

good will between man and man that knows no limits short of those of humanity itself. These great principles of justice mean and demand that no person, by virtue of the personal strength of his position, shall enforce a sharp bargain by duress. What compulsion the very existence of the community and the state may demand must be exercised in such a way as to produce no unnecessary infringement of freedom.” (Wiener 1989: 105f)

11. Even though Krippendorff's intentions may seem geared towards distancing himself from early cybernetics, his accounts reaffirm the centrality of the concerns for agency that were formulated by Wiener. Krippendorff frames cybernetics as a project that cannot remain impartial when confronted with disparities in access to freedom. Within this context, I contend that his insistence on repositioning language within the cybernetics framework is of the utmost significance. Nevertheless, I find his argument provided in support of the repositioning of language somewhat challenging to grasp. According to Krippendorff, because agency primarily exists in accounts of agency, it cannot be conceptualized as separate from language, and language needs to become a central concern within a cybernetics that rejects an uncritical attitude.

12. Nonetheless, a distinction exists between agency and a sense of agency. The latter pertains to the individual's perception of their own agency and is particularly relevant when viewed from the perspective of observing systems, i.e., a first-person standpoint. It must be differentiated from agency. As Shaun Gallagher (2007) outlines, several studies have found that a sense of agency is partially pre-reflective. Its formation is not solely reliant on language. Additionally, the argument that agency predominantly resides within accounts of agency can lead to a troubling shift in responsibilities, as those who feel they have suffered are called upon to speak up. Victims might not speak. They might feel that speaking will endanger them. As some individuals in society will need to enact their responsibilities and act upon the relations that constrain their and others' freedoms, providing victims with emancipatory strategies will be important, but it is a one-sided strategy. It is unclear to me why, in Krippendorff's critical cybernetics, those who profit from creating constraints for others are not addressed.

13. To underscore the significance of prioritizing language within a cybernetics framework positioned within an academic context, one may refer to Wiener's essay titled “The Role of the Observer,” which highlights the question of the observer within the context of scientific reasoning:

“Physics is merely a coherent way of describing the readings of physical instruments. There is no reason why a similar criterion should not be applied to all branches of knowledge. Biology should be an account of the outcome of dissections, physiological experiments, and observations of the behavior of animals. Psychology should be a reasoned history of introspections and observations of behavior, which will allow us to fit in new observations and introspections. Mathematics should be an account of theorems and their recognized criteria of truth or falsity, which will allow us to place new theorems in this respect.” (Wiener 1936: 311)

14. If contemporary humanness is defined by science and technological innovation, the claim that science is accounts of observations would be reason enough to re-iterate Margaret Mead's (1968) call for cybernetics as a project that develops a transdisciplinary language. Such a call serves to re-establish a vital link between

cybernetics and Wiener's critique of technological application. Further substantiating the importance of placing language at the core of a project dedicated to earnestly understanding the technicity of society, one can draw upon Bernard Stiegler (1998). He contends that the dichotomy between the human and the technical is an erroneous construct inherited from metaphysics. He posits that technicity is inherently human, with language being the foundational technic. Mead's advocacy for cybernetics as a transdisciplinary language seemingly aligns with an appreciation of language as a fundamental technic. Other scholars and practitioners have put forth arguments supporting a repositioning of language within the cybernetic framework. Humberto Maturana and Gerda Verden-Zöllner (2008) have expounded such arguments in the work *The Origin of Humanness in the Biology of Love*. For them, human beings are languaging beings.

15. Krippendorff's proposal to reconfigure cybernetics with language as a central focus holds significant importance in the context of a society that has adopted an efficiency-oriented notion of technics, a technoscience that is characterized by the dominance of efficiency and utility ideals. Krippendorff's criticism of biological and engineering metaphors that have perpetuated uncriticality in technoscience is important. However, reconfiguring cybernetics to emphasize the centrality of language may entail making it explicit that technics encompass more than mere efficiency. It would allow the cyberneticians of today to reconfigure cybernetics with language as a central concern without detaching it from its expertise in the critical enquiry of the relations between society and technological innovation, at the basis of which we find the wishes, ideas, habits, and goals of individuals.

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