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"On the Plausibility of Intelligent Life on Other Worlds: A Cognitive-Semiotic Assessment of $f_i \cdot fc \cdot L$"

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The apprehension of the last three factors of the Drake equation, $f_i \cdot f_c \cdot L$, is misguided or at least not very well examined. This article scrutinizes the underlying suppositions involved in the search for extraterrestrial intelligence (SETI) research. What is meant by "intelligence," "technology," and "civilization"? What makes them possible, and how do they evolve? The present examination aims to arrive at a more well-founded search for extraterrestrial intelligence that takes into account current research within cognitive science, the history of technology, and the history of socialization. What we need is a cognitive-semiotic approach to the extent, distribution, and evolution of extraterrestrial intelligence. The three variables $f_i \cdot f_c \cdot L$ concern how an extraterrestrial biosphere evolves cognitively flexible organisms that, through a biocultural coevolution, acquire an increasing capability to manipulate the surrounding environment for the purpose of transferring shared mental states. In addition, this has to last for a period of time long enough to coincide with the relatively brief existence of *Homo sapiens sapiens*. (Text from author's abstract)

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