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CHOMSKY IN THE COSMOS: LESSONS FROM NEUROLINGUISTICS FOR THE DESIGN OF  
MESSAGES FOR EXTRATERRESTRIAL INTELLIGENCE

**Abstract**

Messaging Extraterrestrial Intelligences (METI) begins with the assumed premise that meaningful communication with an extraterrestrial intelligence is possible. This reduces METI to a pragmatic activity concerned with determining the most efficient way to convey the information content of a message, which is itself limited by parameters given by an assumed minimal identity between sender and receiver. Historically, the contents of a message designed for interstellar communication have used mathematics and concepts from the physical sciences as a foundation on the grounds that these can reasonably be assumed to be the same throughout the cosmos. Yet a critical examination of these assumed premises reveals that they are, in fact, as arbitrary as the proposition of simply sending a large corpus in a natural language, as far as intelligibility is concerned. For this reason, I argue it is necessary for METI-ists to consider the implications of contemporary neurolinguistics and the philosophy of language in the design of future interstellar messages. This examination reveals that METI has severely limited the tools of interstellar communication at its disposal by unnecessarily restricting its assumptions about the nature of extraterrestrial cognition.