Search for Extraterrestrial Intelligence (SETI) - The Next Steps (34th Symposium) (IAA.1.1) (A4.)
SETI II - Interdisciplinary Aspects (2.)

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A POST-DETECTION DECIPHERMENT MATRIX

Abstract

To date, no decipherment, of an ancient or unknown language, has been achieved by a cryptographer, crypto-palaeographer or linguist, by using robust scientific methods or without the aid of a crib: decipherment has typically relied on the insights and good guesses of hobbyists from unrelated disciplines. This illustrates how 'courageous' a strategy of relying on established algorithms and brute-force cryptanalysis techniques, to attempt a decipherment, is likely to be. Articles, books and even the film Contact, portray post-detection signal decipherment as a task for 'imported' cryptographers. However, such expertise and methodologies are reliant on the premise that the data is an encoded form of a known 'system', which has a high probability of not being the case here. It is therefore submitted that such a 'signal' is likely to present the antithesis of the expected norm for decryption techniques: a plaintext representation of an unknown system.

To enable a realistic attempt at a decipherment of an unknown language, it is the universal attributes and behavioural characteristics of language structure that first need to be modelled and understood (Elliott et al 2001; Elliott 2002). This will then provide the necessary methodologies and algorithms to detect such hierarchical layers, which comprise intelligent, complex communication. As part of this 'toolkit', it is submitted that all known systems (language parameters) need to be structurally analysed to 'place' their 'system' within a language matrix. This will need to include all known languages, whether 'living' [in current use] or ancient; this must also include endeavours to incorporate yet undeciphered scripts, to provide as complete a picture as possible. In creating such a relational matrix, post-detection decipherment will be assisted by a structural 'map' that will have the potential for 'placing' an alien communication with its nearest known 'neighbour', to assist subsequent categorisation of basic parameters as a precursor to decipherment.

References

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