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QUANTUM CONSCIOUSNESS, INTELLIGENCE, AND EXOSAPIENS: A NOVEL APPROACH TO
THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE

Abstract

How we define intelligence dictates the methods we use in SETI, and the biggest limitation is that current definitions revolve around human intelligence. However, when discussed in the context of SETI, human-centric methods of measuring intelligence are not applicable or adequate. This paper proposes a new term, derived from the same latin roots of homosapiens: exosapiens. This is a category of extraterrestrial intelligent beings with a type of intelligence similar to our own, one which we may be able to recognize and communicate with. One of the main assumptions in SETI is that an exosapien would have produced technology similar to ours that would allow us to detect it, thereby leading to our search for technosignatures. Intelligence as a concept would need to have an objective definition, scientific phenomenon, or some marker associated with it in order to assist in SETI. It is frequently defined as the ability to respond to external input and surroundings. Some studies use neuroimaging techniques to examine the functional connectivity of the brain as it relates to intelligence, attributing it to specific parts of the human brain, while others argue that intelligence is not exclusive to humans and that our definition is anthropocentric. Animal intelligence has been a particular topic of interest for many years. Another significant concept that frequently appears along with intelligence is consciousness. Defined as the state of being aware of and responsive to surroundings, it is often put forward as the main differentiating factor between human intelligence and artificial intelligence, or that of basic life forms. This gives rise to the question: could SETI be the search for consciousness? Scientists have suggested that consciousness may be a byproduct of quantum interactions in the brain, similar to the interactions between neurons. Quantum mind and quantum cognition studies have not yet reached any conclusions due to the elusive nature of quantum theory. Nevertheless, taking this objective approach to defining and measuring intelligence may give rise to new methods in SETI. This work aims to improve our understanding of intelligence as a whole and develop a scientific model of intelligence. It includes a preliminary research proposal for determining an expression for neural connectivity and its correlation with varying states of consciousness and intelligence. Finally, it investigates the technologies being developed in various quantum fields, and how they may potentially contribute to the future of SETI.