

Peer Review

Review of: "Assimilating Neuroimaging with the Archaeology of Early Mark-Making: A Critical Assessment"

Karenleigh Anne Overmann¹

1. University of Colorado at Colorado Springs, United States

1. The introduction notes that there are three main hypotheses regarding the significance of prehistoric marks: neuroimaging evidence, proto-aesthetic explanation, and material engagement theory. It then states that "The aim of this paper is to assess the merits of each approach..." This statement creates an expectation that the manuscript will discuss all three of the main hypotheses. Yet only the first, neuroimaging, is analyzed in any detail; the other two are scarcely mentioned again. The author should either expand the analysis of the second two hypotheses to present the same depth and detail or omit them to focus on the single hypothesis discussed at length.

2. The criticism of neuroimaging studies is largely focused on shortfalls in methods and models. An important limitation is not mentioned: imaging studies are performed on subjects who are WEIRD (Western, educated, industrialized, rich, and democratic). This population is not directly comparable to prehistoric populations that are, by definition, not WEIRD, and at 500,000 years ago, quite possibly not human in the same way humans are understood today. The difference is particularly critical given that the educated component of WEIRD includes literacy, and thus, trained neurological responses to graphic marks. It is worth noting that Neurovisual Resonance Theory shares this limitation, as it is similarly based on research performed exclusively with WEIRD subjects.

Declarations

Potential competing interests: No potential competing interests to declare.