

NEURO-ANTHRO-PHENOMENOLOGY OF HEALING: A HYPERSCANNING STUDY OF MEXICAN CURANDEROS

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Background: Shamanistic healing has been practiced for thousands of years worldwide, using spiritual and energetic techniques to address physical, emotional, and psychological imbalances. In Mexico, shamanic practices date back to the pre-Columbian era, with indigenous peoples using them to connect with the spiritual world and maintain balance with nature — a tradition that persists today. While shamanic healing has long been studied anthropologically, research on its neural mechanisms is relatively new. EEG studies have shown brain activity changes during shamanic practices, like increased gamma activity and altered beta connectivity. However, there is little research on the neural dynamics between the healer and patient in shamanic sessions, known as hyperscanning, which measures simultaneous brain activity in multiple participants. Recent studies suggest increased neural synchronization during therapeutic conversations compared to chatting, raising questions regarding their mechanistic role in shamanic healing, with alternative mechanisms being patients' worldviews and/or acute healing experiences. This project aims to investigate these questions using EEG hyperscanning alongside anthropological and phenomenological perspectives. By integrating neurophenomenology, which links subjective experience with brain activity, and neuroanthropology, which studies the interaction between culture and brain function, the research seeks a holistic understanding of shamanic healing dynamics.

Aims: This research explores shamanic healing process through neuroscience, anthropology, and phenomenology. It aims to uncover mechanisms of subjective healing, including shaman-patient neural synchronization, patient's phenomenology of healing, cultural worldview and behavioral synchrony.

Methods: 35 healing sessions were recorded with local patients, in collaboration with 4 shamans from Puebla and Morelos, Mexico, in the shamans' natural settings. Data collection involved EEG hyperscanning in shaman-patient pairs (Wearable sensing DSI-24), ECG, video recordings (ethnographically analyzed to identify key action units and behavioral synchronization), and interviews for both, enabling phenomenological categorization of experience of healing, and worldview grouping. Data analysis is underway.

Preliminary Results: Data collection is ongoing.

Keywords: Neuroanthropology, Phenomenology, Shamanism, Hyperscanning

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