

AI vs. Human: A Preliminary Investigation into Arabic-English Code-Switching

Ji Young Shim¹, Line Ben Thaier²

jshim@aus.edu¹

Associate Professor of Linguistics, American University of Sharjah¹

Undergraduate - Student, American University of Sharjah²

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ABSTRACT

This talk delves into the comparative abilities of large language models (LLMs), particularly ChatGPT, and human native speakers when making judgments about code-switching—the phenomenon of alternating between languages within a conversation. The study focuses on distinguishing between acceptable and unacceptable patterns of code-switching in Emirati Arabic and English, as predicted by the Matrix Language Frame (MLF) model, which provides a framework for understanding how languages interact within bilingual discourse. Through our research, we aim to explore the degree to which LLMs, like ChatGPT, can accurately assess and replicate the complexities involved in human code-switching, which often hinges on linguistic, social, and cultural factors. Preliminary findings reveal interesting contrasts between the strengths and limitations of LLMs and those of human native speakers in their ability to process and evaluate multilingual language use. This comparison provides deeper insights into the nuances of multilingual language processing and underscores both the potential and the current limitations of AI in replicating human-like judgments of code-switching. These insights hold significance for the development of more refined language models and contribute to the broader understanding of the intersection between artificial intelligence and natural language processing in multilingual contexts.