## Spatial deixis and gestures in Brazilian Portuguese and American English: a crosslinguistic multimodal analysis

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Departing from the view that Cognitive Linguistics is a Usage-based theory (Langacker 2007, Cienki 2016), and that there is a very tight relation between Cognitive Linguistics and Gesture Studies (Cienki 2016), in this paper, we aim at discussing gesture patterns that emerged from an empirical comparative analysis made between the spatial deictic expressions 'here' and 'there' in American English, and 'aqui', 'ali', 'aí' and 'lá' in Brazilian Portuguese. Our initial hypothesis was that there is a predominance between pointing gestures and spatial deictic expressions in verbo-gestural compounds in both languages. We collected and analyzed 10 videos containing a verbo-gestural occurrence of each cited deictic, totalizing 60 verbo-gestural occurrences. The videos were collected form The Distributed Little Red Hen Lab, a multimodal library hosted at UCLA. We departed from the concept of gesture as an "deliberate visible movement" (Kendon 2004) made by the utterer to convey a meaning co-related to the speech. We focused on hand gestures, because "in particular, manual gestures can represent ideas in space in a way that is much less feasible for other bodily articulators" (Cienki 2016: 607). Furthermore, the analysis of hand gestures can be tightly correlated to a linguistic analysis of speech, due to the facts that: "a) gestures can be segmented and classified, b) gesture show regularities and structures on the level of form, meaning and syntagmatics, gesture have the potential for combinatorics and hierarchical structures, d) gestures show syntagmatic as paradigmatic relations" (Bressem 2013: 1081). Regarding this speech-gesture correlation, we followed the Linquistic Annotation System for Gestures (Bressem et al 2013) steps, which include: the gesture stroke isolation and description, considering four features: handshape, palm orientation, movement direction and position in space. Partial results showed that a five-member radial scale, with a central and four gradually peripherical members, could be established. encompassing the verbo-gestural occurrences of both languages. Nevertheless, although pointing gestures were the more central members of the prototype, as we hypothesized, they weren't the only ones that co-occurred with the spatial deictic expressions: other patterns could be designed, especially when the gestures performed a metaphoric referential function (Cienki 2017) or cooccurred with microconstructions, such as, for example, 'Escuta aqui' ('Listen here', in Brazilian Portuguese). The results showed systematic patterns pervasive to both analyzed languages, as well as some overlapping categories on the peripherical members of the prototype.

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