

Emergence in Phonological Acquisition

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Formal linguistic models, such as those based on generative assumptions, have difficulties in explaining language variability and change which are inherent to all languages. The main problem arises due to the nature of linguistic representations which are understood as categorical. This presentation will suggest that language acquisition may shed some light on the dynamical nature of languages by addressing two major questions related to the acquisition of segmental phonology. The first question concerns the categorical or gradient nature of phonological representations. The second question regards the nature of representation itself. In order to address the categorical or gradient nature of linguistic representations a number of case studies will be discussed, with emphasis on the acquisition of Brazilian Portuguese (BP) segmental phonology (Albano (2009), Benayon e Gomes (2009), Berti (2006), Guimarães (2008), Miranda (2007), Ferreira-Gonçalves (2008)). The major point to be made from reviewing the acquisition of segmental phonology of BP is that a dynamic perspective is more adequate to account for the observed facts. Furthermore, it will be indicated that statistical generalizations may offer an elegant approach to language acquisition (Pierrehumbert, 2003). Given these facts the second question will be addressed: what is the nature of linguistic representation? Emphasis is given to phonological representations focusing on the segmental properties of language. It is suggested that segments are theoretical constructs which allow formal modeling, but they do not have psychological reality (Port, 2005). The claim to be made is that phonological representations are dynamic, multimodal and variable. Thus, entities of phonological representations are not predefined categories of universal grammar, such as phonemes, although the concept of a phonological segment as a discrete unit has a heuristic value as a descriptor in formal symbolic models. Rather, what was formerly seen as categorical unit, such as phoneme, is understood as an emergent and dynamical property of a combination of various cognitive

abilities involved in the production and the perception of abstract concepts related to language (Nam et al., in press). In sum, this presentation suggests that general cognitive properties of human beings must interact in order to categorize linguistic stimuli. The lexicon combines physical and symbolic properties in order to express meaning and construct language. Language exposure and language usage are crucial to organize linguistic knowledge. Language is thus seen as an emergent and dynamical construct of general human cognitive abilities.