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Comparison between processes in language acquisition by children and language evolution (CRP 01-JA30)

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Abstract:

This project has three main goals: first, to have better insight in children's production processes, second, to gain more detailed information concerning motor and cognitive prerequisites to language development in children, and last but not least, taking our results into consideration, propose some hypothesis concerning the similarities and differences between the processes implied in language acquisition and language evolution. A cross linguistic perspective is adopted for comparing systematically babbling, first words and lexical spurt in 20 (four per language) infants acquiring typologically different languages: Dutch, Rumanian, Turkish, Tunisian and French.

Three types of data are used: spontaneous data, parental report and categorization tasks. One hour of audio-video recording every two weeks from 8 months of age through 25 months of age takes place in children's homes. The parents are told to follow the normal types of activities they usually pursued with their infants. We administer also the adaptations of the MacArthur Development Inventories (Fenson et al., 1993) respectively elaborated by Inge and Lejaegere for Dutch, and by Kern for French. Mothers have to fill out the questionnaire once in a month. These questionnaires will complete the spontaneous data collection. An object manipulation task will be administered every two months. This task is a simplified version of sorting task, which does not require the understanding of verbal instructions. Several toys, small enough to be easily manipulated by young children, serve as the stimuli.

In a first stage, we will focus on the emergence of first syllables in order to confirm the hypothesis proposed by MacNeilage and Davis in the "Frame-Content theory". These authors stipulate that there are a number of universal articulatory tendencies in babbling due to biomechanic constraints and that during the emergence of first words, children progressively adjust their productions to the adult system. Second, we will look in detail how children progressively are adjusting their productions to the phonetic repertoire of the environment by using MacNeilage and Davis "Probabilistic Sampling Model". The aim of this model is to facilitate a quantitative analysis of the relation between different sounds and sound combinations in child early productions at the different stages and sounds and sound-combinations in adult's productions. In a second stage, we will study the phenomenon of lexical spurt and its possible link to non-

verbal cognitive task as categorization. The last stage will be the most speculative, insofar as it aims at comparing the language development in children to the development of language in evolution.