

## **Bilingual acquisition of Israeli sign language and Hebrew by a hearing child of deaf parents**

In literature a debate is underway as to whether the acquisition of signed language (SL) is an advantage in achieving the classical milestones of language development, namely the first word and the first 10 and 50 words (Meier & Newport, 1990; Volterra & Iverson 1995; Bogarede 2000; Capirci, Iverson, Montanari & Volterra 2002). Opinions also diverge on whether, in the course of SL acquisition, the child's transition from gestures to signs can be clearly defined (Petitto 1987; Hoting & Slobin 2007). The developmental patterns of the use of pointing gestures for personal reference often serve as an index to abrupt versus smooth transition to the established SL. The issues of 'sign advantage' and 'continuity' were examined in the context of the early bilingual acquisition of Israeli sign language (ISL) and Hebrew by a hearing child of deaf parents. A longitudinal case study followed the development of a hearing child's acquisition of ISL and Hebrew from the age of 8 to 24 months. The child, Ziv, was videotaped at his home every two weeks for 30 minutes each time while interacting with his parents. The deaf mother is a native signer of ISL. Both parents use code-blended utterances for communication; they simultaneously produce ISL signs and Hebrew words that had phonation. Ziv's utterances were coded using the ELAN transcription program (Max Planck Institute for Psycholinguistics).

The long-term follow-up study showed that for the hearing child, SL presents an advantage over spoken language in terms of the age at which the developmental milestones are achieved. Both languages manifested similar developmental patterns in the rate of word acquisition but at different ages. At 16 months, a noticeable acceleration in the acquisition rate of signs was observed. Towards the end of the second year, the spoken-word acquisition rate accelerated dramatically. In each language, the semantic groups in the early lexicon were similar to those documented previously for both hearing and deaf children. The use of all early gestural-signs gradually became more symbolic and conventional over time. Interestingly, most of Ziv's first 30 signs are classified as highly iconic. More interestingly, the deaf mother frequently enhanced and mobilized the form's iconicity to promote structure-meaning mapping. This finding suggests that iconicity plays a role in social interactions between deaf parents and their babies in the early stages of language acquisition. It

suggests that iconicity can affect the pace of the development of SL lexicon as it seems that the enhancement of the signs' iconicity made the forms and their associative meanings more noticeable for Ziv.

With regard to continuity, our follow-up study shows that the function of pointing to a person and to the self gradually developed over time, starting from it being used at first mainly for ritualized requests, then for getting a person's attention and directing it to an external entity, and later on also for pronominal reference. The study's results hence strengthen the case for the claim that there is a natural, smooth and continuous transition from using early communicative ostensive actions to their more conventional forms.

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