

(26) The birth of a language

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One of the most intriguing and fascinating questions concerning language is: Can a new language emerge *de novo*? While most linguists assume that this is possible, this phenomenon has hardly been observed in the past. The present study is concerned precisely with such a language. We have been fortunate to study a sign language that developed *de novo* in a Bedouin community in Israel. This sign language arose spontaneously and in isolation from any other sign language, and without the influence of spoken language. Within the past three generations, approximately 80 individuals with congenital deafness have been born into the community. All deaf individuals show profound prelingual neurosensory hearing loss at all frequencies, have an otherwise normal phenotype, and are of normal intelligence. The percentage of deaf people is vastly higher than in more familiar deaf communities (2.5% compared with 0.25%). This high percentage of deaf individuals, and the fact that they are integrated in the community and allowed to freely interact with each other, enabled the development of a communication system unique to this community. Goal: The goal of our research is to study the properties and developmental traits of this new language, and compare them to those characterizing established sign languages such as Israeli Sign Language (ISL) and American Sign Language (ASL). In particular, we are interested in finding out how complex grammatical systems such as word order and verb agreement, develop in a new language. Methods: We designed videotaped materials for elicitation of short sentences reflecting functions usually expressed in sign languages through localization in space, verb agreement and word order. We also presented longer stimuli, such as short animated cartoons, to elicit discourse-length corpora. Our subjects were 4-5 signers of three different age groups within the community. Findings: We found that the language has developed vocabulary, which includes words denoting entities (both concrete and abstract), actions and properties. Though most signs have iconic origins, many have been conventionalized and schematized, and as a result became less iconic. In addition, we found that basic syntactic-semantic relations such as agent and patient are expressed through verb order, and not via morphological means such as verb agreement (which is how established sign languages express these relations). These findings indicate that basic syntactic structures take less time to develop than morphological structures.