Early morphology and recurring sound patterns: Comparing different kinds of data on the acquisition of Danish noun plurals

Laila Kjærbæk, Hans Basbøll, Claus Lambertsen & Sonja Wehberg (University of Southern Denmark at Odense)

To enlighten the question how infants and toddlers come to grips with morphological patterns in a language whose sound structure presents great perceptual difficulties, we shall discuss aspects of our work on Danish children’s acquisition of noun plurals, including results from The Danish CDI-studies (The MacArthur-Bates Communicative Developmental Inventory), longitudinal data mainly from The Odense Twin Corpus, and experimental data.

The Danish CDI-studies consist of a longitudinal study of 182 children followed from the age of 0;8 to the age of 2;6 (with a total of more than 4,000 CDI-reports), a crosssectional study of 6,112 children aged 0;8 to 3;0, supplemented with CDI-reports from the families of the Odense Twin Corpus (see Bleses et al. 2007; Bleses et al. forthcoming (JCL) a, b; Wehberg et al. 2007, 2008). The Odense Twin Corpus is a longitudinal corpus of spontaneous Child Speech and Child Directed Speech recorded in the children’s homes in interaction with their parents or caretaker and transcribed in CHILDES (MacWhinney 2007 a, b), supplemented by parts of Kim Plunkett’s Danish corpus (CHILDES) (Plunkett 1985, 1986) of two children. The age range for the longitudinal data is 1;0-3;0. Experiments are of two types, a more structured ("Classical") and a more naturalistic ("Script").

All data presented (longitudinal, experimental and CDI-data) are coded in our phonetic/phonological/morphological OLAM system. Utterances from our longitudinal corpora (including the longest sentences reported in the CDI-reports) are analysed with respect to linguistic complexity, e.g. types of MLU and MLW, compared to age and vocabulary size. We shall discuss the role of zero endings in MLU and compare different ways to calculate such measures.

The analysis of the Danish morphological system used is purely sound-based (as against letter-based) and thereby deviates radically from standard accounts. The Danish (native) system of nominal pluralisation consists of the suffixes $a$-schwa and $e$-schwa, with or without accompanying stem changes (Basbøll 2005, Ravid et al. 2008), as well as zero plurals (only very rarely with stem change). The two overt suffixes are the two neutral vowels in Danish, a category of paramount importance in Danish phonology: it is decisive in creating the typologically characteristic syllable structure of Danish with extreme sound reductions (Rischel 2003, Basbøll 2005) presenting a challenge to the language acquiring child (Bleses & Basbøll 2004).

Building upon the Danish CDI-studies as well as on the Odense Twin Corpus and experimental data, we shall investigate the emergence of different word forms (mainly inflectional forms of nouns) and discuss possible reasons behind the patterns observed. Furthermore, we shall make a comparative analysis of different types of plural formation and error patterns across all three sets of data. Emphasis will be on theoretical, methodological and empirical implications of comparing these very different types of data.