findings can be seen to reveal part of the academic gap, theorised by Cummins, that bilingual children still have to cross in order to perform well in school. This interpretation of the data marks one possible starting point of an endeavour to learn about ways that narrative skills of bilingual learners can be developed.

98–649 Silvestre, Núria and Laborda, Cristina (U. Autonoma, Barcelona). Etude des définitions produites par les élèves bilingues déficients auditifs: analyse comparative selon le niveau de contact avec chaque langue. [A study of the definitions produced by hearing-impaired bilingual pupils : a comparative analysis of different degrees of contact with each language.] *Aile* (Paris), **10** (1997), 51–74.

The study reported here explores the effects of oral second language acquisition in hearing-impaired pupils when the mother tongue is not yet fully acquired. Written definitions from hearing-impaired children aged 6 to 10 years are analysed; the children's first language is Spanish, with different degrees of contact with their second language Catalan. The assumption is that they are more competent in their mother tongue. The analysis compares their ability to define words in both languages from a linguistic and semantic point of view. Results suggest that the simultaneous acquisition of a dual spoken code can bring positive results, especially since the bilingual contact allows hearing-impaired pupils to generalise concepts learned in various contexts.

Child language development

98–650 Clark, Eve C. (Stanford U.), **and Grossman, James B.**. Pragmatic directions and children's word learning. *Journal of Child Language* (Cambridge), **25**, 1 (1998), 1–18.

One major task facing children as they acquire a first language is learning new words and their meanings. The study reported here tested the hypothesis that children as young as two use what adults tell them about meaning relations when they make inferences about new words. 18 two-year-olds (mean age 2;2) and 18 three-year-olds (mean age 3;2) learned two new terms (a) with instructions either to treat one term as a superordinate to the other, or to replace one term with another; and (b) with no instruction given about how two new words might be related. Children were attentive to both kinds of instructions or pragmatic directions, and made use of them in their word-learning. When they received no instruction relating to the two new words, they resorted to a range of coping strategies to assign and relate meanings to each other. These findings are taken to support the view that children's learning of new word meanings is guided by the pragmatic directions adults offer.

98–651 Naigles, Letitia R. (Yale U.) **and Hoff-Ginsberg, Erika**. Why are some verbs learned before other verbs? Effects of input frequency and structure on children's early verb use. *Journal of Child Language* (Cambridge), **25**, 1 (1998), 95–120.

A recent spate of interest in early verb learning has provided several databases for examining the order in which verbs appear in children's speech. The present study investigated the extent to which the nature of verb input accounts for the order in which children acquire verbs. The nature of verb input was assessed using a combined sample of the speech of 57 mothers addressing their Stage I children. The order of verb acquisition was assessed using as the database a combined sample of those children's speech 10 weeks later and using as the measure of order of acquisition the frequency of verb occurrence. The first set of analyses established the validity of this measure of acquisition order by comparing it with order of acquisition data obtained from checklist and diary data. The second set of analyses revealed that three properties of the input were significant predictors of the order of acquisition of the 25 verbs that were the focus of the study: these were the total frequency, final position frequency, and diversity of syntactic environments in which the verbs appeared. These findings suggest that the way verbs appear in input influences their ease of acquisition. More specifically, the effect of syntactic diversity in input provides support for the syntactic bootstrapping account of how children use structural information to learn the meaning of new verbs.

98–652 Shi, Rushen, Morgan, James L. and Allopenna, Paul (Brown U.). Phonological and acoustic bases for earliest grammatical category assignment: a cross-linguistic perspective. *Journal of Child Language* (Cambridge), **25**, 1 (1998), 169–201.

Learning how to assign words to grammatical categories, or form classes, is an important step in early language acquisition. The study reported here examined maternal infant-directed speech in Mandarin Chinese and Turkish – two mother–child dyads each; ages of children between 0;11 and 1;8 – to see if cues might exist in input that might assist infants' assignment of words to lexical and functional item categories. Distributional, phonological, and acoustic measures were analysed. In each language, lexical and functional items (i.e. syllabic morphemes) differed significantly on numerous measures. Despite differences in mean values between categories, distributions of values typically displayed substantial overlap. However, simulations with self-organising neural networks supported the conclusion that, although individual dimensions had low cue validity, in each language multi-dimensional constellations of presyntactic cues are sufficient to guide assignment of words to rudimentary grammatical categories.