

# Bilingual language input environments, intake, maturity and practice

ANNICK DE HOUWER  
*University of Erfurt*

(Received: February 10, 2016; accepted: February 12, 2016; first published online 11 March 2016)

Keywords: bilingual children, language input

Before bilingual children can say anything, they must learn to distinguish between the two languages that are spoken to them, and they must learn to make useful perceptual distinctions in each of them in order to understand what is said to them. Conversational interaction and non-verbal communication, such as pointing and gaze, aid children in attending to and processing aspects of their “language input environment” (De Houwer, 2009, 2011), “exposure” in Carroll’s terms. As Carroll points out, children must build up their linguistic categories based on their intrinsically category-free “exposure”: they must process speech to acquire language. This reminds me of Wijnen’s (2000) notion of LANGUAGE INTAKE, which is the “data base children use to derive hypotheses on the structure of the target grammar” (p. 174), and which constitutes children’s selection from what I will continue to call input, *pace* Carroll. Wijnen sees data selection from the input as determined by the processing of physical and distributional characteristics of spoken utterances addressed to children as well as the linguistic knowledge and skill children have already acquired. In my view, Wijnen’s dynamic model can be applied to any kind of linguistic domain other than grammar, including semantics, pragmatics, the lexicon and phonology (for evidence on the latter two, see McGillion, Herbert, Pine, Vihman, DePaolis, Keren-Portnoy & Matthews, in press).

Children’s knowledge base and the opportunities to practice their linguistic skills are continuously expanding, as are children’s nervous systems. The limits and possibilities of very young minds (say, at age 1) and their concomitant states of knowledge and histories of language practice are not the same as those of older child minds (say, at age 10). Such differences in maturity and opportunities for language practice will lead to different kinds of intake options from the dual language input environment, so that one particular kind of input may have different effects on children at different levels of maturity and practice. Furthermore, bilingual children’s opportunities

and willingness to practice (use) a particular language may depend quite directly on social-psychological factors, such as their language attitudes (see also Carroll). Quite fundamentally, PARENTAL attitudes and beliefs are important in shaping bilingual children’s language input environments (De Houwer, 1999).

Parallel to children’s constantly changing linguistic maturity and practice levels, qualitative and quantitative aspects of their language input environments are changing, too, and do so in response to children’s levels of language skill. For instance, mothers talk more to older than younger bilinguals (De Houwer, 2014); mothers may stop using a particular language in response to a child’s perceived difficulties with it (De Houwer & Bornstein, 2016); features of infant directed speech are typically absent in child directed speech (CDS) to six-year-olds; and parents don’t normally tell complicated stories to babies. Also, young bilingual children’s linguistic performance in each language rapidly and dynamically changes in response to changes in the overall amount of input in a language that they receive (De Houwer, 2009).

The challenge is to connect the ever-changing features of input in each language with bilingual children’s maturing development, and to map their language intake along the way. This assumes that we at least know what bilingual language input environments look like. I join Carroll in calling for more, and more reliable measures of CDS. Carroll is spot-on in criticizing the common group approach: grouped data are inappropriate for examining input effects on bilingual development, since these are fundamentally individual-based processes (Lanza, 2001). Also, in studies of input in bilingual acquisition once-off questionnaires are often used to assess the “division of labor” amongst languages. These can only give a very approximate picture of children’s “data base”, as Carroll also notes. Repeatedly using a language diary is likely to be more accurate (De Houwer, 2011). Actual recordings of CDS in bilingual families (De Houwer, 1997, 2014; De Houwer & Bornstein, 2016) are preferable, but require

Address for correspondence:

Annick De Houwer, Nordhäuserstraße 63, D-99089 Erfurt, Germany  
[annick.dehouwer@uni-erfurt.de](mailto:annick.dehouwer@uni-erfurt.de)

huge resources. It is in and through interaction, after all, that children hear language.

Finally, I concur with Carroll that studies should distinguish between children with bilingual input from birth and those who start hearing a second language later. It is a basic error not to do so (De Houwer, 2009).

Carroll has done the field of bilingual acquisition a great favor in asking that we fundamentally reflect on the notion of input. Let's rise to the occasion.

## References

- Carroll, S.E. (2015) Exposure and input in bilingual development. *Bilingualism: Language and Cognition*. doi:10.1017/S1366728915000863.
- De Houwer, A. (1997). The role of input in the acquisition of past verb forms in English and Dutch: evidence from a bilingual child. In E. Clark (ed.), *Proceedings of the 28th Stanford Child Language Research Forum*, pp.153-162. Stanford, CA: CSLI.
- De Houwer, A. (1999). Environmental factors in early bilingual development: the role of parental beliefs and attitudes. In G. Extra & L. Verhoeven (eds.), *Bilingualism and migration*, pp. 75–95. Berlin: Mouton de Gruyter.
- De Houwer, A. (2009). *Bilingual First Language Acquisition*. Bristol: Multilingual Matters.
- De Houwer, A. (2011). Language input environments and language development in bilingual acquisition. *Applied Linguistics Review*, 2, 221–240.
- De Houwer, A. (2014). The absolute frequency of maternal input to bilingual and monolingual children: a first comparison. In T. Grüter & J. Paradis (eds.), *Input and experience in bilingual development*, pp. 163–186. Amsterdam: John Benjamins.
- De Houwer, A., & Bornstein, M.H. (2016). Bilingual mothers' language choice in child-directed speech: Continuity and change. *Journal of Multicultural and Multilingual Development*, doi: 10.1080/01434632.2015.1127929
- Lanza, E. (2001). Bilingual first language acquisition: A discourse perspective on language contact in parent - child interactions. In J. Cenoz & F. Genesee (eds.), *Trends in bilingual acquisition*, pp. 201–229. Amsterdam: John Benjamins.
- McGillion, M., Herbert, J., Pine, J., Vihman, M., DePaolis, R., Keren-Portnoy, T., & Matthews, D. (in press) What paves the way to conventional language? The predictive value of babble, pointing and SES. *Child Development*.
- Wijnen, F. (2000). Input, intake and sequence in syntactic development. In M. Beers, B. van de Bogaerde, G. Bol, J. de Jong & C. Rooijmans (eds.), *From sound to sentence - Studies on first language acquisition*, pp. 163–186. Groningen: Centre for Language and Cognition.