

The cognitive antecedents of linguistic (un)countability

Is the mass/count distinction merely a linguistic issue, or is it coded in representations other than language?

Typological studies report the existence of a countability split universally attested in natural languages (Massam, 2012): 'mass' nouns (sand) would denote substances or uncountable stuff; 'count' nouns (ring) mostly denote countable objects. Most linguistic theories assume that uncountability is formally simpler, as its parsing would require less semantic or syntactic operations (Chierchia, 1998; Borer, 2005; De Belder 2009). However, experimental literature reports a bias for countability: psycholinguistic studies show that count nouns seem to be accessed faster (Gillon, 1999; Mondini et al., 2009) and to require less processing effort (Frisson and Frazier 2005; Semenza, 2008); countability is also preferred in presence of language impairments (Herbert & Best, 2010; Semenza et al., 1997) and by young children acquiring language (Barner & Snedeker, 2005; Gathercole, 1985).

It could be the case that processing some semantic features related to uncountability is actually more demanding from a cognitive point of view. It is crucial to explore the role of the extra-linguistic cognitive abilities which provide the semantic information about countability that is then encoded into language.

We tested 5–6-year-old children's ability to judge sentences with nouns occurring in mass syntax and count syntax. We compared their performance on this linguistic task with their performance in tasks concerning conservation and abstraction abilities that allow object representation.

The results point to the role played in the development by extra-linguistic cognitive abilities which provide salient information encoded into language.