

Spontaneous language of extremely premature children : Specific deficits in an informative language task

Martinez Perez T., Grootclaes V., Docquier L., & Maillart C.

BELGIUM - University of Liège – Department of Psychology

Introduction

A recent meta-analysis study showed that extremely premature children present persisting language problems in the school-age (Barre et al., 2011). However, other studies examining a range of language subdomains are needed to further understand the specific nature of language difficulties in these children. Little is known about their spontaneous speech (Jennische & Sedin, 2001). In the present study, we investigated differences in spontaneous language ability between French-speaking extremely premature children and in term-born control children.

Methodology

23 Extremely premature children

M_{age} 7.3 years
 Gestational age < 26 weeks at birth
 Birthweight between 500g and 1000g
 French native speakers
 School grade: between the end of the kindergarten to the 2th grade

23 Term-born children

Matched on age, gender and sociocultural level to extremely premature children

Population
Material

Descriptive language task

Narration based on pictures
(Frog, where are you ?)

Informative language task

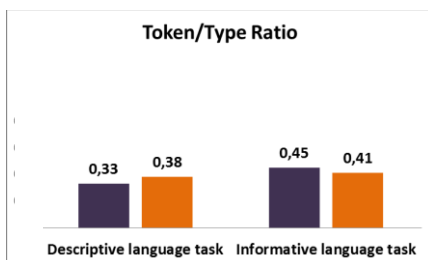
Explanation of familiar actions
(playing football, washing one's hair)

Analyses of the children's productions at lexical, semantic and syntactic levels

Results

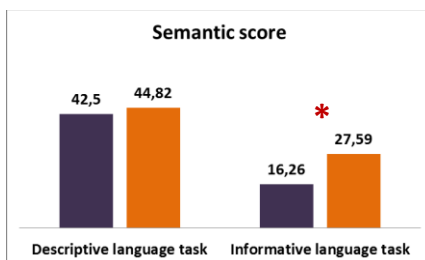
■ Extremely premature children ■ Term-born children

Token/Type Ratio



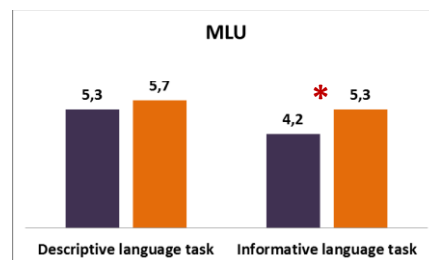
Informative language task : Poorer variety of the words used by EPC ($p < .05$) but no difference for the token/type ratio (ns)

Semantic score



Informative language task : Fewer and less rich ideas in EPC ($p < .05$)

MLU



Informative language task : Lower average length of utterances in EPC ($p < .05$)

Discussion

These findings highlight an impairment of spontaneous language in extreme premature children, and suggest that their language has to be assessed by both descriptive and informative language tasks to identify the locus of impairment.

Barre, N., Morgan, A., Doyle, L.W., & Anderson, P.J (2011). Language abilities in children who were very preterm and/or very low birth weight: a meta-analysis. *The Journal of Pediatrics*, 158, 766-74.

Jennische, M., & Sedin, G. (2001). Spontaneous speech at 6 ½ years of age in children who required neonatal intensive care in 1986-1989. *Acta Paediatrica*, 90, 22-33.