

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

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## 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

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

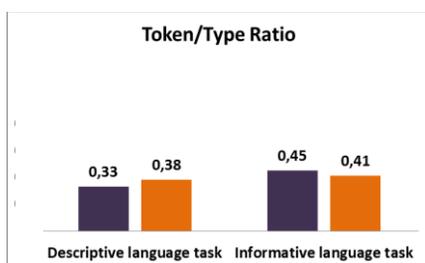
Explanation of familiar actions  
(playing football, washing one's hair)

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

## Results

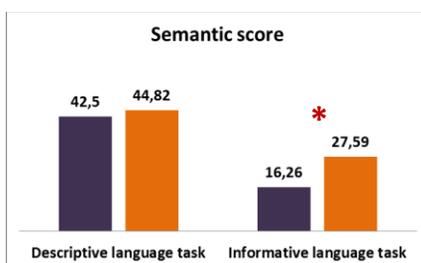
■ Extremely premature children ■ Term-born children

### Token/Type Ratio



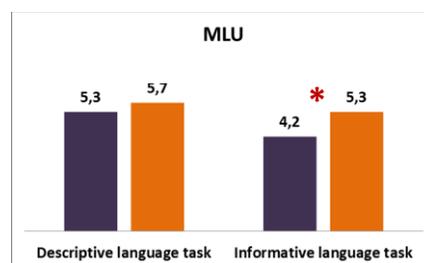
**Informative language task** : Poorer variety of the words used by EPC ( $p < .05$ ) but no difference for the token/type ratio (ns)

### 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.