

# Lexical and morpho-syntactic development in french-speaking children with specific language impairment

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## Abstract

Cross-linguistic differences are found in normal language acquisition and in the manifestation of specific language impairment (SLI). The characteristics of young French-speaking children with SLI have not been described in detail. There is disagreement as to whether French involves an optional infinitive stage, a prominent feature in SLI in English (Hamann et al., 2003; Paradis & Crago, 2001). This study examined the lexical and morphosyntactic development of young Quebec French-speaking children with SLI.

**PARTICIPANTS:** Participants were 10 children with SLI and 13 children with normal language development (NL) matched on age, all monolingual French-speakers residing in Montreal. The SLI group was recruited from a hospital speech-language clinic. Diagnostic status was verified for all children by a certified speech-language pathologist. Four children referred for the SLI group did not meet the diagnostic criteria at the time of testing and were excluded. All the children passed a hearing screening. The groups did not differ in age ( $p=.807$ ) or maternal education ( $.671$ ). Although the SLI group scored within the normal range in nonverbal cognition, a significant group difference was found ( $p=.029$ ). The groups differed significantly in MLU ( $F(1,22)=49.3$ ,  $p=.000$ ) and in EVIP scores ( $F(1,22)=5.29$ ,  $p=.032$ ). Each of the children with SLI scored at least 1 SD below the mean for their age in MLU in relation to preliminary normative data (Elin Thordardottir, in press). The SLI group's age equivalent for MLU was 25 months).

	SLI (n=10)	NL (n=13)
Age in months	46.5 (4.7)	46.0 (4.9)
Nonverbal cognition	101.1 (17.4)	118.0 (14.4)
Maternal Education (years)	15.2 (2.7)	15.9 (4.1)
MLU (in morphemes)	2.44 (0.6)	4.51 (0.8)
EVIP(receptive vocabulary)	81.4 (32.3)	103.5 (11.4)

**PROCEDURE:** The children were administered a test of nonverbal cognition (Leiter International, Roid & Miller, 1997), a test of vocabulary comprehension (EVIP, Dunn, Thériault-Whalen & Dunn 1993). A spontaneous language sample was recorded in a conversational play setting in interaction with an examiner, using a standard set of toys. The samples were coded for grammatical inflections using a procedure developed for Quebec French (Elin Thordardottir, in press), providing measures of mean length of utterance (MLU, MLUw), lexical diversity (Number of Different Words, NDW) and morphosyntax (diversity of use of inflectional morphology and inflectional errors). MLU, MLUw, NDW and morphological diversity are based on a sample of 100 utterances. The children's entire sample was used for analysis of inflectional errors.

	<b>SLI (n=10)</b>	<b>NL (n=13)</b>
MLU in words (MLUw)	2.03 (0.4)	3.5 (0.6)
MLU in morphemes (MLU)	2.44 (0.6)	4.5 (0.8)
Number of Diff. Words (NDW)	71.1 (23.9)	142.1 (22.0)
Morphological Diversity	9.0 (2.0)	13.9 (2.1)

The groups differed significantly on each of these measures (MLU:  $F(1,22)=49.3$ ,  $p=.000$ , MLUw:  $F(1,22)=49.5$ ,  $p=.000$ , NDW:  $F(1,22)=53.1$ ,  $p=.000$ , morphological diversity (number of types of inflection used:  $F(1,22)=31.1$ ,  $p=.000$ ).

Further analysis of morphological diversity revealed that 12 inflection types were used by at least 50% of the children in the NL group, and 8 by the SLI group. The pattern of use indicated a similar developmental sequence in the two groups, and this sequence was in agreement with that previously reported for younger NL children (Elin Thordardottir, in press).

#### Morphological errors

Inflectional errors were divided into errors involving verb inflection (person and tense) and errors involving nouns, adjectives and pronouns (gender and number).

	<b>SLI (n=10)</b>	<b>NL (n=13)</b>
Verb infl., % correct	95.7 (4.9)	98.9 (1.3)
Noun infl., % correct	100 (0)	98.6 (1.8)

The groups differed significantly in both error types (verbs:  $F(1,22)=4.96$ ,  $p=.037$ ; nouns:  $F(1,22)=5.8$ ,  $p=.025$ ). Omission of inflection in obligatory contexts was virtually nonexistent for both groups. Thus, omissions of verb inflection in utterances with a subject did not occur. Substitution errors of tense or person were very infrequent as well. The great majority of the verb inflection errors were coded as “ambiguous”, involving a form that could be interpreted as an infinitive or a past participle, used in utterances without a subject. This error type, although infrequent overall, was characteristic of the SLI group. Other error types (substitutions and errors in) occurred equally or more frequently in sample of children in the NL group.

**DISCUSSION:** The study indicates that SLI in young French-speaking children is characterized by significant limitations in lexical, syntactic and morphosyntactic development. These children’s morphological development parallels that previously documented for younger Quebec French-speaking children of similar MLU in terms of morphological diversity and error patterns, with omission of inflections in obligatory contexts next to nonexistent and an overall low rate of inflectional errors of any kind (Elin Thordardottir, in press). Inflectional patterns were documented, however, that can be viewed as root infinitives. These included the use of infinitives or past participles in utterances without a subject. These errors were of low frequency (95.7% correct), but were significantly more prominent in the SLI than the NL group.

#### References

- Dunn, L., Thériault-Whalen, C., & Dunn, L. (1993). *Échelle de vocabulaire en images Peabody: Adaptation française du Peabody Picture Vocabulary Test-Revised*. Toronto, ON: PsyCan.
- Elin Thordardottir (in press). Early lexical and syntactic development in Quebec French and English: Implications for cross-linguistic and bilingual assessment. *International Journal of Language and Communication Disorders*.

- Hamann, C., Ohayon, S., Dubé, S., Frauenfelder, L., Rizzi, L., Starke, M., & Zesiger, P. (2003). Aspects of grammatical development in young French children with SLI, *Developmental Science*, 6, 151-158.
- Paradis, J. & Crago, M. (2001). The morphosyntax of specific language impairment in French: An extended optional default account. *Language Acquisition*, 9, 269-300.
- Roid, G. & Miller, L. (1997). *Leiter International Performance Scale-Revised*. Wood Dale, IL: Stoelting Co.