

# The relevance of specific language impairment in understanding the role of transfer in second language acquisition

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## ABSTRACT

The purpose of this study was to assess whether children with specific language impairment (SLI) are a useful first language (L1) comparison group for second language (L2) children in order to determine whether target-deviant structures in interlanguage are developmental or due to transfer from the L1. Children with SLI could make a useful comparison group for child L2 learners because, unlike very young L1 learners, children with SLI have both incomplete abilities in the target language and the same cognitive and mental maturity as their age mates acquiring an L2. We examined the use of direct object clitics by English-L1/French-L2 learners and monolingual French-speaking children with SLI. Transfer from English might be expected for object pronominalization in French L2 interlanguage because the two languages have contrastive systems for this aspect of grammar. The use of direct object clitics in contexts in spontaneous speech where object pronominalization would be permissible was examined. The results showed that both the L2 and SLI children supplied clitics in permissible contexts at the same rate (approximately 40%), which was lower than that of monolingual, normally developing French-speaking children who were either age-matched (7 years old) or language-matched according to mean length of utterance in words (3 years old) with the L2–SLI children. Although there appeared to be some role of L1 transfer in the relative distribution of nonclitic object types in clitic-permissible contexts, the similarities between the SLI and L2 children suggest that target-deviant structures involving direct object pronominalization are a developmental phenomenon in child French across learner contexts. The results also suggest that for acquisition of some target-deviant structures, there can be greater similarities between L2 and SLI children than between L2 and younger L1 children.

A long-standing question in investigations of interlanguage is whether target-deviant structures can be attributed to transfer from the first language (L1), or instead are part of the developmental acquisition sequence for the target language, as evidenced by all learners of that language (e.g., Dulay & Burt, 1973, 1974). Even if target-deviant structures in the second language (L2) can *logically* be attributed to the L1, this does not necessarily mean that transfer is the source. How can we identify which target-deviant structures are due to transfer and which are developmental? Researchers have typically approached this question in two ways.

One consists of comparing the use of a target structure in L2 learners from different L1 backgrounds. If the L2 learners appear to have the same interlanguage errors for that target structure, then transfer is not the most likely explanation. Another method for assessing the potential role of transfer is to compare the errors produced by L2 learners with those produced by children acquiring the target language as their L1. Again, if similarities are found, then the source of the errors in the L2 interlanguage is probably not transfer from the L1.

A third method of determining the role of transfer is to compare L2 interlanguage with the language produced by L1 learners who have specific language impairment (SLI). SLI is a developmental language disorder in which affected children acquire their native language in a more protracted fashion than their unaffected peers and present with pernicious difficulties in the lexical and morphosyntactic domains of language. Children with SLI develop normally otherwise in that they have nonverbal IQs within the normal limits, no severe social–emotional problems, no frank neurological damage, no hearing loss, and no oral–motor impairments. Comparing L2 learners and children with SLI has not been widely undertaken, although in principle it has a certain advantage over comparing L2 learners with normally developing (ND) L1 children. The advantage is that children with SLI can be as cognitively mature and the same age as L2 children, and yet they have incomplete target language abilities like L2 children. The consideration of cognitive maturity is important when comparing the acquisition of target structures at the discourse–pragmatics interface, such as anaphora, because the understanding of how to use these structures depends on understanding the needs of the interlocutor and numerous other contextual variables. It is possible that very young children could not grasp the discourse–pragmatic variables that older children can because of cognitive immaturity. The purpose of this study is to investigate the usefulness of comparing L2 children and children with SLI as method of addressing whether interlanguage target-deviant structures are due to transfer from the L1. In other words, I wanted to examine whether the incompletely learned language of L2 children and children with SLI showed sufficient similarities that could inform us of the source of L2 errors. Furthermore, an ND L1 group was included in the study in order to examine which of the two L1 groups, the younger ND children or the older children with SLI, were the closest match to the L2 children with respect to their use of object pronominals in French.

## OBJECT PRONOMINALIZATION IN FRENCH AND ENGLISH

English and French have contrasting systems for object pronominalization. English direct object pronominals (me, you, him/her, it, us, them) distribute syntactically like full nominal expressions that is, noun phrases (NPs), and appear in postverbal position like lexical direct objects. Direct (*me, te, le/la, nous, vous, les*) and indirect (*lui, leur*) object pronominals in French are clitics, that is to say, morphemes of restricted distribution that attach to a verbal host. They cannot be modified, coordinated, or dislocated or appear in isolation. In addition, French canonical word order is subject–verb–object (SVO), but object pronominal clitics appear preverbally in declaratives and negative imperatives (standard variety) and postverbally

in affirmative imperatives. Examples showing the distribution of direct objects and clitics in French are given in Example 1.

1. a. Brigitte regarde sa poupée.  
Brigitte looks-at her doll.  
“Brigitte is looking at her doll.”
- b. Brigitte *la* regarde.  
Brigitte DO.CLI:FEM:SG looks-at  
“Brigitte is looking at it.”
- c. \*Brigitte regarde *la*.  
Brigitte looks-at DO.CLI:FEM:SG  
“Brigitte is looking at it.”
- d. (ne) *la* regarde pas  
DO.CLI:FEM:SG look-at not  
“Don’t look at it.”
- e. Regarde *la*.  
look-at DO.CLI:FEM:SG  
“Look at it.”

French also has a series of *pronoms toniques* “strong pronouns” (*moi, toi, lui/elle, nous, vous, eux*). These are morphemes that distribute like NPs. They can be complements of prepositions or appear in coordinated and dislocated/doubled structures and in isolation. Thus, in some respects, this set of pronominals resembles the object pronouns in English, as can be seen from the glosses in Example 2.

2. a. Je les ai donnés à elle.  
I DO.CLI:3PL AUX:PAST give:PART to her  
“I gave it to her.”
- b. Brendan et moi, on va y aller.  
Brendan and me SUBJ.CLI:1PL AUX:FUT LOC.CLI go:INF  
“Brendan and me are going to go there.”
- c. Où va-t-il, lui?  
Where go:SUBJ.CLI:MASC:SG him  
“Where’s he going, him?”
- d. Qui veut y aller?  
“Who wants to go there?”  
*Moi.*  
“Me.”

## TRANSFER FROM ENGLISH TO FRENCH IN L2 CONTEXTS

The crosslinguistic differences in direct object pronominal forms between the two languages predict transfer from English to French (Herschensohn, in press; Selinker, Swain, & Dumas, 1975; White 2001; Zobl, 1980). The primary reason is that there is some overlap between the pronominalization systems in the two languages such that there is congruence between part of the French system and the English system. French has strong pronouns that distribute somewhat like English

pronouns. In English SVO is the canonical order used when either lexical and object pronouns appear, and in French SVO is the order for all sentences with lexical objects and affirmative imperatives with object clitics. Thus, the partial overlap might influence English-speaking learners of French to assume English-like distributional patterns for French object pronominals in their interlanguage. Note that the reverse would not be predicted to occur because there is no evidence in English for OV sentence patterns or for object pronominals being bound morphemes.

The kinds of target-deviant structures that are predicted to occur as a result of transfer from English to French are given in Example 3 for the target sentence *Brigitte la regarde* “Brigitte is looking at her/it.” Example 3a shows an object clitic incorrectly placed postverbally in the same position as English direct object pronouns. Example 3b shows the incorrect use of a strong pronoun as a direct object pronominal, also in postverbal position. Finally, Example 3c shows the use of a deictic pronominal, *ça*, in a context where an anaphoric direct object pronoun would be more typical. This form is an NP and can grammatically be placed in postverbal position, and so it might be more attractive to English-speaking learners of French than object clitics. Are there target-deviant structures that could appear in object clitic contexts that could not logically be attributed to transfer? Object omissions are one type of error that could not easily be attributed to English L1 influence because English does not allow object drop as in languages like Japanese. However, sentences with null objects are possible target-deviant forms because French word order is relatively fixed as SVO and thus the preverbal placement of object clitics is exceptional and leaves the canonical object position empty.

3. a. \*Brigitte regarde *la*.
- b. \*Brigitte regarde *elle*.
- c. Brigitte regarde *ça*.

Object clitics emerge later than subject clitics in the speech of French L2 learners (Adiv, 1984; Granfeldt & Schlyter, in press; Herschensohn, in press; White, 1996). In addition, researchers have investigated the potential for transfer-based structures in the use of L2 French pronominals when the L1 is English or a language where object pronouns distribute in a similar fashion to those in English, like Swedish. Seemingly transfer-based structures such as those in Example 3 have been noted in the research on the acquisition of French as an L2 by both children and adults (Granfeldt & Schlyter, in press; Herschensohn, in press; Schlyter, 1997; Selinker et al., 1975; White, 1996); however, although the relative frequency of different nontarget object types is reported by some, none of this research systematically examined frequency as a function of pronominalization contexts. Without such contextual information, it is not possible to determine the full range of clitics and nontarget objects used instead of clitics. For example, object omissions in sentences with transitive verbs that could be construed as clitic omissions have also been reported (Herschensohn, in press; Schlyter, 1997; White, 1996; Zobl, 1980). However, it is difficult to be certain that these are object clitic omissions because no systematic and thorough examination of contexts where pronominalization would

be expected was undertaken. One exception is Adiv's (1984) study in which object pronouns were elicited directly. She reported that English L1–French L2 children produced more object omissions in pronominalization contexts than the kinds of transfer-based errors shown in Example 3, although precise numbers for each error type were not given.

Examples below from both adult and child L2 French show the use of a strong pronoun in postverbal position (Examples 4a, 5a, 5b, 5c, and 6a), a clitic in postverbal position (Example 4b), the use of *ça* in an atypical context (Example 4c), and object omissions that could be construed as clitic omissions (Examples 4d and 6b). In sum, both the predicted L1 transfer errors and other errors have been attested in L2 French in both children and adults; what is less well understood is their prevalence in comparison with non-transfer-based, nonclitic object types in object pronominalization contexts.

4. a. *Moi va attraper elle.*  
"I'm going to catch her."  
b. *Moi j'ai trouvé le.*  
"Me, I found it."  
c. *Le papa-vache fait ça.*  
"The daddy-cow does that."  
d. *Oui je ∅ mettre comme ça.*  
"Yes I put like that."

(child L1 English; White, 1996)

5. a. *Il mange elle.*  
"He is eating her."  
b. *Ne connaît pas eh elle, grand-mère.*  
"Don't know her, grandmother."  
c. *Oui, mais, il prend nous.*  
"Yes, but he is taking us."

(adult L1 Swedish; Schlyter, 1997)

6. a. *J'ai vu elle.*  
"I saw her."  
b. *T' ∅ as placé sur le lit.*  
"You put on the bed."

(adult L1 English; Herschensohn, in press)

#### OBJECT CLITICS IN FRENCH L1 ACQUISITION, WITH AND WITHOUT SLI

Productive use of object clitics emerges relatively late in ND children acquiring French, typically between 2 years and 6 months (2;6) and 3;0, in both monolingual and bilingual children (Chillier et al., 2001; Clark, 1985; Hamann, Rizzi, & Frauenfelder, 1996; Heinen & Kadow, 1990; Hulk, 1997; Jakubowicz & Rigaut, 2000; Kaiser, 1994; Schlyter, 1997). It is object clitics, and not clitics in general, that are acquired relatively late; subject clitics emerge earlier. In addition, accurate production of object clitics is slower to develop than the correct interpretation of their antecedents (Chillier et al., 2001). Target-deviant structures like Examples 3a

and 3b have been anecdotally noted in both monolingual and bilingual French acquisition, and some are given in Example 7. In an elicitation task involving 12 French children aged 2;5, those who had a mean length of utterance (MLU) of less than 4.0 produced mainly object omissions in contexts where an object clitic was expected; whereas, for those who had an MLU greater than 4.0, the most common nonclitic form used in these contexts was a lexical NP, although object omissions did occur as well (Jakubowicz & Rigaut, 2000). Chillier et al. (2001) found object omissions to be the most common error produced by 18 French children aged 3;5–4;5 in an elicitation task for object clitics, with use of a lexical NP as a less frequent nontarget structure. Errors like those in Example 7 were rare in both of these larger sample studies, although it is possible that elicitation tasks may draw out different distributions of error forms than those evident in spontaneous speech.

7. a. Deux fois, on avait *lui*.  
“Two times, we had it.”

(French monolingual; Clark, 1985)

- b. Je prends *la*.  
“I’m taking it.”

(Dutch–French; Hulk, 1997)

Object clitics are a particularly problematic area of acquisition in French SLI. Difficulties with the use of object clitics have been reported for children with SLI from 4 to 13 years of age, from both naturalistic and experimental data (Chillier et al., 2001; Cronel–Ohayan et al., 2001; Hamann et al., 2002; Jakubowicz, Nash, Rigaut, & Gérard, 1998). However, like ND children, children with SLI show superior interpretation than expressive abilities with object clitics (Chillier et al., 2001). Nonclitic structures produced in direct object pronominalization contexts are typically lexical NPs or object omissions, the same kinds of errors most common to normal French L1. Use of strong pronouns (e.g., Example 3b) is infrequent in object pronominalization contexts. The examples from an elicitation experiment with children with SLI presented in Example 8 show the use of redundant lexical objects and null objects in contexts where pronominalization would be expected.

8. Q: Que fait Nounours à Kiki?  
“What is Teddy-bear doing to Kiki?”  
a. A: I brosse *Kiki*.  
“He is brushing Kiki.”  
b. A: I ∅ passe le mouchoir. (NB: IO)  
“He is handing the handkerchief.”

(Jakubowicz et al., 1998)

## SUMMARY AND PREDICTIONS FOR THE PRESENT STUDY

In normal L1, impaired L1, and child and adult L2 acquisition of French, the development of object clitics is protracted and can result in the use of target-deviant

forms. Studies from L1 acquisition, with and without SLI, indicate that target-deviant forms such as object omissions and lexical NPs are the most frequent. The L2 literature does not provide sufficient information regarding how frequently these kinds of errors occur compared with the transfer-based ones in pronominalization contexts. This leaves open the question whether the transfer-based structures are a truly systematic stage in French L2 interlanguage or whether they are interesting, but anecdotal, examples of cross-language influences in L2 acquisition. Direct comparisons between French L1 and English L1–French L2 learners for use of object clitics and nonclitic objects in pronominalization contexts would further our understanding of how large a role transfer plays in this aspect of French interlanguage. Because the accurate use of object pronominals in discourse may require some cognitive maturity and because the extant literature indicates that the L1 acquisition patterns for object clitics could be distinct from those in L2, this is an aspect of language development where an age gap between L1 and L2 comparison groups might yield data difficult to interpret. Therefore, a group of L1 learners who could be age matched with L2 learners, namely monolingual children with SLI, might be a useful comparison group to inform us of the source of target-deviant structures used in the L2 acquisition of object clitics in French, that is developmental or transfer based.

More specifically, if nontarget structures in direct object pronominalization contexts in L2 French include more structures like those listed in Example 3 than structures with null or lexical objects and the latter prevail in the L1 data, then transfer from the L1 is a likely explanation for this aspect of L2 interlanguage. In contrast, if null or lexical objects are more frequent than the kinds of target-deviant structures in Example 3 in the L2 data, and/or there are strong parallels in the types of nontarget objects used by both L1 and L2 learners, then transfer from the L1 is an unlikely explanation for this aspect of L2 interlanguage.

## METHOD

### *Participants*

This study included four groups of children: 7-year-old ND, monolingual French-speaking children (7ND), 7-year-old monolingual French-speaking children with SLI (7SLI), 7-year-old English L1 children learning French as an L2 (7L2),<sup>1</sup> and 3-year-old ND monolingual French-speaking children. Details about group size, ages, and MLU in words (MLUWs) are in Table 1. A one-way between subjects analysis of variance (ANOVA) for the MLUWs for the four groups of children was significant,  $F(3, 35) = 10.43$ ,  $p < .0001$ . Post hoc Newman–Keuls comparisons showed that the 7ND children had a longer mean MLUW than all the other groups, but there was no difference between the mean MLUWs for the other groups. Here is the rationale for this four group design: the 7L2 and 7SLI children are at a similar age, and matched for level of language development as measured with MLUW. Comparing the groups could illustrate commonalities in French at a certain stage of developmental language and level of cognitive or mental maturity. The 7ND children are an age-matched control group for the children with SLI and the L2 children, demonstrating the

Table 1. *Sample size, mean age, and MLUW for each group of children*

Children	Sample Size	Mean Age (years;months)	MLUW	
			Mean	SD
7ND	10	7;3	5.70	0.83
3ND	10	3;3	3.67	0.80
7L2	10	6;8	4.09	0.47
7SLI	10	7;6	3.98	0.44

ceiling performance that can be expected at 7 years of age with use of object pronominals. The 3ND children provide a younger, language-level comparison group for the 7SLI and 7L2 children. Children in this age range were chosen because their MLUWs matched the L2 and SLI groups. Moreover, prior research indicates that object clitics are being acquired at this age, so it was thought that these children might be producing target deviant forms like the L2 children and the children with SLI. In addition, 3-year-old children are less cognitively mature than 7-year-olds; and comparing them to the L2 and SLI groups could indicate whether children who are cognitively immature, but have normal incomplete language, provide a closer match to the L2 children than children who are cognitive peers but have disordered incomplete language.

The ND, monolingual French-speaking children (7ND and 3ND) were recruited from summer day camps, community centers, and word of mouth in the greater Montreal area in Canada. According to parental report, none of the children had displayed any language learning or hearing difficulties. The children with language impairment (7SLI) were recruited through special classes in elementary schools in the greater Montreal and Sherbrooke areas of Quebec, Canada. The children had all been diagnosed with either *phonological-syntactic* or *lexical-syntactic* language impairment by a certified speech-language pathologist. (These two subcategories of language impairment, used in the province of Quebec and in countries outside North America, correspond to what is referred to as SLI in English-speaking North America.) Part of the criteria for the diagnosis as either lexical-syntactic or phonological-syntactic included performance on a language assessment battery (standardized for Quebec French) of 1.5 standard deviations below the mean and a nonverbal IQ of 80 or above. Children were not included in the study if they had significant cognitive, behavioral, neurological, or oral-motor impairments; were unintelligible; or had hearing that was not within the normal limits. Children classified as phonological-syntactic did not have articulation difficulties that interfered with the ability to discern their production of the target structures. The L2 children were recruited from French-language schools in the Greater Montreal area. The children were all L1 learners of English who had experienced both kindergarten and Grade 1 in French schools. It is important to note that these were not French-immersion schools where the entire class consists of English-speaking learners of French. In contrast, the L2 children in this study were attending school alongside monolingual French-speaking peers. Testing took place at the end of Grade 1,

after the children had had 2 years of full-time exposure to the L2. According to parental reports, none of these children had displayed language-learning or hearing difficulties when they were acquiring their L1.

### *Procedures*

The data used for this study come from spontaneous language production samples from the monolingual children and interview-style language production samples from the L2 children. In both types of samples, numerous contexts for object pronominalization occurred in the discourse. The collected videotapes (7ND, 3ND, and 7SLI) and audiotapes (7L2) were transcribed and coded in CHAT format and analyzed with CLAN (CHILDES project, [www.childes.psy.cmu.edu](http://www.childes.psy.cmu.edu)). Discourse contexts in which direct object pronominalization was possible were identified according to the following criterion: the referent acting as the direct object of a transitive verb was previously mentioned in near discourse on the same topic (within 5–10 preceding lines of the transcript). Next, whatever the child supplied in pronominalization contexts was coded: direct object clitic (*me, te, la/le/les, nous, vous*; SOV),<sup>2</sup> strong pronoun/*ça* (SVO), lexical object (SVO), or null object (SV). Form choice errors were also coded according to gender, person, and other (wrong clitic type). Both transcriptions and coding were checked for reliability. Ten percent of the corpus from each group was transcribed and coded by a different research assistant and then compared with the original. An agreement score was calculated by dividing the total number of discrepant words into the total number of words in the transcript. Rates of agreement for both transcription and coding were 85–95% for all the transcripts that were checked. In general, scores for coding were higher than those for transcription, and the lowest score (85%) was for the SLI group. After scores were calculated, all discrepant words were reviewed jointly by the two research assistants and a final version of the transcript was decided upon by consensus.

### RESULTS

Scores for suppliance of object clitics in object pronominalization contexts were calculated as percentages of object clitics used out of the total of object pronominalization contexts. Results of this calculation are presented in Figure 1. A one-way between-subjects ANOVA performed on these scores was significant,  $F(3, 35) = 39.7$ ,  $p < .0001$ ;  $\eta^2$  (effect size) = 0.77. Newman–Keuls post hoc pairwise comparisons revealed that both the 7L2 and 7SLI children supplied object clitics significantly less than the 7ND and 3ND children at 41.48% (20.8) and 47.3% (14.7) versus 97.63% (2.9) and 85.56% (9.9), respectively.<sup>3</sup> In addition, no significant differences were found between the rate of suppliance for the 7L2 and 7SLI groups, nor for the 3ND and 7ND groups. Note that the 7ND were nearly at ceiling in their use of object clitics in pronominalization contexts. This is an important indicator that the coding procedure for object pronominalization contexts correctly identified the relevant contexts. If this group did not use object clitics the majority of the time in these contexts, this might have indicated that the criterion for identifying contexts was not meeting its purpose.

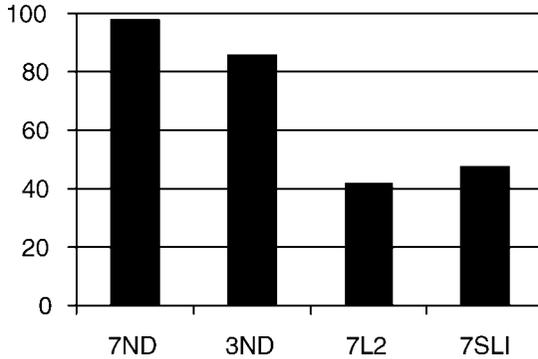


Figure 1. The percent supplience of object clitics in direct object pronominalization contexts.

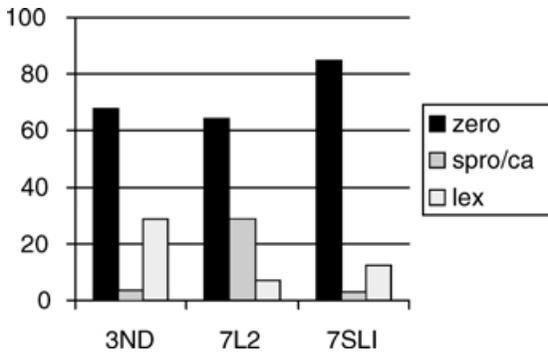


Figure 2. The percent distribution of other objects in direct object pronominalization contexts.

The next analysis performed was an examination of what the children used in object pronominalization contexts when they did not use an object clitic. This analysis was done for the 3ND, 7L2, and 7SLI children only because the 7ND children used object clitics nearly 100% of the time. Even though the 3ND children were not significantly different from the 7ND group in their supplience scores, their mean is slightly lower and we were interested in investigating what they used instead of object clitics. The results of this analysis are given in Figure 2. The children used null objects, strong pronouns/*ça*, or lexical objects in these contexts when they did not use clitics. Strong pronouns and *ça* were used with fairly equal frequency and were put together for this analysis because they both represent nonclitic anaphoric forms. The most common nonclitic object type for all three groups was a null object. Sample excerpts from the transcripts illustrating the use of null object types are presented in Example 9. The groups differed with respect to the second most common nonclitic type: the 7L2 children preferred strong pronouns/*ça*, whereas the 3ND children used more lexical objects. The

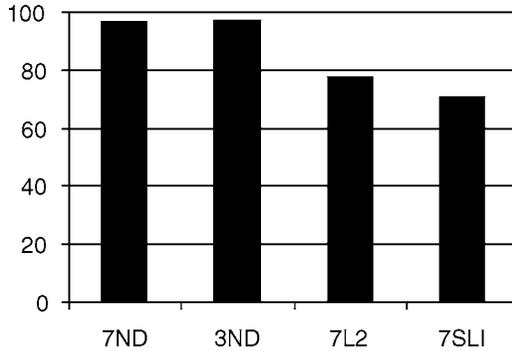


Figure 3. The percent correct form choice for a clitic when supplied.

7SLI children used very few of either of these forms, and so the vast majority of their nonclitic objects were null objects.

9. a. zero object: 7SLI

EXP: Ah, elle est encore dans ton sac à dos?

“Ah, it is still in your knapsack?”

CHI: Non.

“No.”

EXP: Elle est où?

“It is where?”

CHI: Ma mère  $\emptyset$  a jeté.

“My mother threw away.”

b. zero object: 7L2

EXP: Qu’est-ce que tu ferais si tu trouvais de l’argent dans la cours d’école?

“What would you do if you found money in the schoolyard?”

CHI: Je vas, je vas  $\emptyset$  dire au bureau.

“I’m going, I’m going to tell to the office.”

EXP: Qu’est-ce que tu ferais si tu trouvais de l’argent dans la cours d’école?

CHI: Je vas  $\emptyset$  donner au miss.

“I’m going to give to the miss.”

Scores for form choice correctness were calculated as a percentage of correct forms out of the total of clitic forms used. The errors found in these data were those of person, gender, or the wrong clitic (e.g., use of the locative clitic *y* instead of a direct object clitic). The results of this calculation are presented in Figure 3. A one-way between-subjects ANOVA for form choice was significant,  $F(3, 35) = 4.507$ ,  $p < .02$ ;  $\eta^2$  (effect size) = 0.23. Newman–Keuls post hoc pairwise comparisons showed that the 7SLI were less accurate in form choice than the 3ND and 7ND children at 70.47% (20.1) versus 97.27% (4.2) and 96.46% (4.3), respectively;

no other significant differences were found. The individual variation for the L2 children was very high (35.4), which might explain why their mean score (77.8%) was not significantly different from any others.

## DISCUSSION

The primary objective of this study was to investigate whether children with SLI are a useful comparison group for L2 children for the purpose of determining if certain target-deviant structures produced by L2 children can be attributed to transfer from the L1. The use of object pronominals in L2 and L1 French, with and without SLI, was examined because this is an aspect of French morphosyntax that is problematic in both ND and impaired L1 and an area where transfer from an English L1 has been predicted and found in French L2 acquisition.

These data revealed similarities between monolingual French-speaking children with SLI and age- and language-level peers who were learning French as an L2. The 7SLI and 7L2 groups both used object clitics about 40–50% of the time in object pronominalization contexts, and use of null objects was the most common nonclitic object type used by both these groups in pronominalization contexts. Difficulties supplying object clitics and the prevalence of null objects as target-deviant structures in clitic contexts was also found in research on L2 children and children with SLI using elicitation techniques (Adiv, 1984; Chillier et al., 2001; Jakubowicz et al., 1998). The results of this study show that similar patterns prevail in the spontaneous speech of these two child learner populations. The similarities between the monolingual children with SLI and the L2 children with respect to level of difficulty and most common error type suggest that child French L2 learners have difficulty with object clitics mainly because this aspect of French morphosyntax is challenging for child learners, and the contrastive system in their native language appears less likely as the major source of the difficulty.

In addition, the children with SLI performed more like the L2 children than the 3ND children. The 3ND children supplied clitics 85% of the time and performed like the 7ND children for both suppliance and form choice. Note also that when the 3ND children did not use a clitic, they used more lexical objects in pronominalization contexts than the older children, a phenomenon also found in prior research on French-speaking 2.5-year-old children (Jakubowicz & Rigaut, 2000). This could indicate an immature understanding of the discourse–pragmatics of anaphoric reference. Even though the 3ND children in this study were largely accurate in their use of object clitics, the prior research discussed above shows that French-learning children begin to use clitics between 2;6 and 3;0 in naturalistic speech and make errors with them in elicitation tasks at 3;6. This 3ND cohort was expected to have been further away from mastery of clitic suppliance. Because individual rates of acquisition vary considerably and this is a small sample, it is possible that this group of 3-year-olds is somewhat advanced with respect to this aspect of French. However, it is also possible that when ND French L1 children are producing clitics at 40% accuracy, they do not have an MLUW that would match the 7L2 group. Therefore, the results of this study suggest that at a certain level of developmental language, children with SLI parallel L2 children more than ND L1 children with respect to object pronominalization.

The children with SLI and the L2 children differed from each other as well. The children with SLI made more form choice errors with clitics than the ND children, both 3ND and 7L2. This is perhaps a key marker of the difference between normal French learners and impaired French learners at this stage in developmental language. More important, the L2 children used more strong pronoun/*ça* objects in clitic contexts than the children with SLI. This difference in the preponderance of nonclitic objects could be due to the influence of the L1 because these were the structures predicted to occur due to transfer. Thus, transfer does not seem to be determining the overall level of difficulty in supplying object clitics, which is shared with the monolingual population, but it may influence the kinds of target-deviant structures used when learners attempt to produce these problematic grammatical morphemes. In other words, the L2 learners may rely on their native language strategically when confronted with a challenging aspect of their L2, but that aspect of their L2 is challenging in its own right and for all learners of the language. An interesting follow-up study would involve French L2 learners whose L1 has object clitics, for example Italian or Spanish. It is possible that their error strategies would appear distinct from those of the English L1 children in this study, which would lend support to the transfer interpretation given here.

The results of this study point to the usefulness of SLI–L2 comparisons for determining the source of errors in the L2. This finding is supported by prior research on other target structures in the language of these L2 children and children with SLI. Paradis and Crago (2000b, 2001) examined the use of verb grammatical morphology, which is an aspect of interlanguage where no transfer is expected and errors are predicted to be developmental (Dulay & Burt, 1973, 1974). Akin to the present study, there were greater similarities between the children with SLI and the L2 children than between the younger ND children and the L2 children. Paradis and Crago (in press) looked at accuracy with suppliance of determiners, correct determiner forms with respect to gender and number, and adjective placement. We predicted the possible transfer from English for some of these noun phrase features, but again found no evidence for transfer and instead found that the SLI and L2 groups performed very much alike.

It is important to bear in mind that the similarities for various target structures were found in the *same* group of children with SLI and L2 children at a certain age. It is possible that these similarities exist only at one point in development, with divergent acquisition paths occurring at other stages. Longitudinal research on SLI and L2 children is essential to determining whether this equivalence is brief or persistent throughout the language-learning period for the L2 population. We return to this point in the following section.

### *Implications of SLI–L2 similarities*

Although there is very little extant research comparing L2 interlanguage with the language of children with SLI, all studies to date have documented parallels between these two populations with respect to various aspects of morphosyntax and verb lexical diversity (Crago & Paradis, 2003; Håkansson & Nettelbladt, 1993; Paradis & Crago, 2000a, 2000b, in press). These convergent findings beg the

question of why should normal and abnormal language learners show such similar profiles? The purpose of this kind of comparative research is not to show that L2 children are somehow impaired or that they have the same language learning mechanisms as children with SLI. Not only can we assume a priori that some mechanisms must be different between L2 and SLI because the latter is a clinical population, but we can also make this assumption based on the differences in performance between these two groups in this study. For example, the form choice errors with supplied clitics and the distribution of nonclitic object types were different for the children with SLI. In addition, the children with SLI reached a particular stage of developmental language after 7 years of constant exposure to the target language and the L2 children reached roughly the same stage after just 2 years of exposure. Adiv (1984) found a dramatic drop in the error rates with object clitics between Grades 1 and 3 in French L2 children, indicating that after 4 years of exposure, L2 children would outperform the children with SLI in this study. Therefore, the shape of the growth curve toward mastery for object clitic use is most likely distinct for children with SLI and L2 children, as one would expect given that one set of learners has an impaired language-learning mechanism. Therefore, because we can expect that there are some differences in underlying learning mechanisms between L2 children and children with SLI, the similarities in developmental language arguably suggests that the input is the source of the cross-learner similarities. In other words, the L2–SLI similarities need not be interpreted as pointing to potentially identical learning mechanisms in these populations, but rather could be evidence of the powerful effect of target language structure on language-learning mechanisms of different kinds. Thus, the cross-learner similarities shown in this study and other research could be interpreted as evidence that the morphosyntax and pragmatics of object pronominalization in French makes it an inherently difficult part of the language, regardless of the learner population. This difficulty with object clitics could be the result of their preverbal position, their marked status typologically as the most “deficient” kind of pronominal (Cardinaletti & Starke, 1999), the coexisting strong pronoun system in the language, the discourse–pragmatic interface involvement because they are anaphors, or all of these factors combined.

A further implication of SLI and L2 similarities relates to educational and clinical domains. If L2 children share many aspects of their expressive language performance with monolingual age peers with SLI, this could result in ND L2 children being mistaken as language impaired, or conversely, language-impaired L2 children not being referred for intervention because it is thought that their difficulties must be the result of their dual language learning. Thus, the pursuit of documenting the similarities and dissimilarities between these two populations of child language learners has relevance to not only theoretical but also to applied domains. There is a practical need to know how these two populations of children differ in their language development.

In sum, the results of this study point to the usefulness of children with SLI as a monolingual comparative group for L2 acquisition research. This study together with the prior research seems to indicate that object clitics are a vulnerable area in the acquisition of French across learner contexts, and the most frequent error form in object pronominalization contexts is object omission. In the case of L2 French,

transfer from the L1 appears to interact with this developmental phenomenon to determine relative distribution of other error types.

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## NOTES

1. The MLUW and age for the 7L2 children are slightly different from those reported in Paradis and Crago (in press), Crago and Paradis (2003), and Paradis and Crago (2000b). The reason is that the data in this study were drawn from just 10 of the 15 L2 subjects in our sample. Five of the L2 children did not have a sufficient number of contexts for object pronominalization in their transcripts to be included in this analysis.
2. Cases where a clitic was supplied but placed incorrectly, that is, SVO, were marginal.
3. Standard deviations are given in parentheses after the means.

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