

# On Subject Pronouns in Finnish-Italian Bilinguals: Effects of Cross-linguistic Influence on Discourse-pragmatics Competence\*

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*Abstract:*

The distribution of overt pronouns has been the focus of much interest in the last decades as it is considered a typical phenomenon of the syntax-discourse/pragmatics interface, a locus of variability in different kinds of language acquisition (bilingual, L2 advanced learners, SLI) and it has been investigated in null and non-null subject language. In the present paper we discuss the distribution of null and overt pronouns in bilingual language acquisition in Finnish (a partial null subject language) and Italian (a null subject language). Data has been collected through a storytelling task in Finnish and Italian. Results show some optionality in the use of pronominal forms but unexpectedly little overuse of overt pronouns is attested in the null subject language.

Keywords: *Bilingualism, Cross-linguistic Influence, Null and Overt Pronouns*

## *1. Subject pronouns in acquisition: Finnish and Italian*

The mastering of syntactic and discourse-pragmatic properties related to the distribution of null and overt pronominal forms has been the focus of much interest in the last few decades in different types of language acquisition.

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Previous studies on Finnish monolingual acquisition have focused on the very first stages of acquisition (between ages 1 and 4) and data have been collected in longitudinal studies on spontaneous speech. The studies on Finnish L1 acquisition have started quite recently, the first works date to the '70s. These pioneering works generally investigated child language development in a non-systematic and diary-form way with impressionistic data from 1-2 children (see for example Bowerman 1973; Räisänen 1975; Kauppinen 1977; Itkonen 1977). Toivainen (1980) was the first to report data from 25 children in a study conducted in a systematic way. To date, previous studies on Finnish child acquisition have mainly focused on the acquisition of its rich nominal morphology and on phonological distinctions (Toivainen 1980; Niemi and Niemi 1985; Lieko 1994; Laalo 1997, 1998). Also the verbal domain has been investigated, in particular by Toivainen (1980), and Laalo (1998, 2011). In Laalo (1998) it is reported that the first verb forms to emerge are 2<sup>nd</sup> person imperative and 3<sup>rd</sup> person indicative. From Toivainen (1980) we know that Finnish children produce third person verbs as early as 1;11-2;2.<sup>1</sup> Notice also that the conjugation of 3<sup>rd</sup> person is close to the basic form of the verb (infinitive) and it is thus "semantically the most neutral form that is selected for its universal use" (Toivainen 1980: 44). However, in all these works very little mention is made of the emergence and production of subject pronouns in early stages of language development. From a check of the transcriptions<sup>2</sup> of 15 children in the study of Toivainen (1980) we observe that by the age of 2;4-2;5 children use the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> person singular pronouns *minä* 'I', *sinä* 'you', *se* 'it/s/he'. Unfortunately, due to the transcription method there adopted, we don't know whether children used the long form typical of standard Finnish, considered a partial null subject language, or the shortened one typical of colloquial Finnish, that can be assimilated to the non null subject language type (see section 3 for an overview of the Finnish pronouns).

As for Italian, we know that the first subject pronouns to emerge are 1<sup>st</sup> and 2<sup>nd</sup> person pronouns and successively, only from age 2;7, 3<sup>rd</sup> person pronouns<sup>3</sup> (Pizzuto and Caselli 1992; Antelmi 1997). From the extensive study

<sup>1</sup> Note that in Finnish child oriented speech 3<sup>rd</sup> person singular is generally used by the mother/caretaker when referring to herself or to the child.

- (i) Mother: Ottaako Nina mehua?  
take-PRES3sg-WH Nina juice-PARTsg  
'Does Nina take some juice?' (when speaking directly to the child)
- (ii) Mother: Odota hetki, äiti auttaa  
wait-IMP2sgs second mom help-PRES3sg  
'Wait a second, mom helps you'.

<sup>2</sup> The check has been made by the author of the present contribution.

<sup>3</sup> Since the main focus of the paper is rather on overt pronouns, we address the interested reader to Rizzi (2002) among others for further readings on subject omissions and early null subjects in L1 acquisition.

on 386 monolingual Italian children by Caselli, Casadio and Bates (1999) it results that 3<sup>rd</sup> person subject pronouns occur later and at a much lower rate with respect to first and second person pronouns. Pinto's (2012) longitudinal study discusses null and overt pronouns in the speech of one child from age 1;7 to 2;7 (Martina, CHILDES corpus). The author reports the emergence of the first pronouns, which are 1<sup>st</sup> and 2<sup>nd</sup> person pronouns, at age 1;8-1;9. In Italian, similarly to Finnish, the first verb forms to emerge are 2<sup>nd</sup> person imperative and 3<sup>rd</sup> person indicative.

From this overview we can observe that in both Finnish and Italian the order of emergence of verb forms is the same in both languages and by age 2;5 at the latest both in Italian and in Finnish personal pronouns are attested for 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> singular. We assume along the lines of current literature that by the age of 5-6 the grammar has reached its maturation and all the relevant syntactic rules are settled. This is relevant in light of the fact that the participants to our study have received a balanced input (that is, equally good in terms of quantity and quality) in both languages until schooling. Thus, the acquisition of subject pronouns should have been completed before the environmental language, Italian, started turning into the dominant language. The present study reports data from an elicitation task administered to Italian-Finnish bilingual children (n=7, age span 5;7-11) in Italian and Finnish. At the age of testing both L1s of the bilingual children are expected to have correctly set the relevant syntactic and pragmatic principles regarding the distribution of null and overt subject pronouns.

The paper is organized as follows: in section 2 the main previous studies on the distribution of null and overt subject pronouns are outlined. In section 3 and 4 the peculiarities of Italian and Finnish, respectively, as regards subject pronouns are sketched. Section 5 focuses on the study and presents the methodology, the participants and the results. Section 6 is devoted to the discussion. In section 7 the main conclusions are drawn.

## *2. Subjects pronouns in bilingual language development: previous studies*

The acquisition of two or more languages is a widely investigated area of research. Bilingual and L2 language acquisition as well as L1 attrition have proved to be a good ground for investigating the acquisition of the subtle properties at the so-called syntax-discourse interface.

Narrowing down on bilingual acquisition, it is well-known that children are able to differentiate their two grammars from early on (De Houwer 1990; Paradis and Genesee 1996; Meisel 2001, a.o.) but cross-linguistic influence from one language to another can still occur showing instability and optionality. In particular, several studies in the last decades have focused on the phenomena related to the so-called syntax-discourse/pragmatics interface, which has revealed to be an area of vulnerability (Serratrice *et al.* 2004;

Pinto 2006; Hacothen and Schaeffer 2007, a.o.). An influential assumption in bilingual language acquisition has been put forth by Platzack (1999) following whom the C domain is the more vulnerable domain in various types of language acquisition (L1, L2, SLI, aphasics) as it is the interface level connecting internal grammar and other cognitive systems (e.g. syntax and discourse/pragmatics). This formulation has been further refined in Hulk and Müller (2000), Müller and Hulk (2001) who investigated cross-linguistic influence in Romance-Germanic bilingual children and suggested that it is in the vulnerable CP domain that the two languages may interact, and thus cross-linguistic influence may emerge. In addition, the authors claimed that another necessary condition for cross-linguistic influence to take place is overlap at the surface level of the given phenomenon: language A has a syntactic construction which allows more than one syntactic analysis and language B contains evidence for one of these two possible analysis. Thus, for the authors cross-linguistic influence is due to language internal influence and not to e.g. language dominance.

Along the same lines of reasoning another relevant proposal on which much work on L2, bilingual and attrited speakers has been grounded is the Interface Hypothesis (Sorace 2005; Sorace and Filiaci 2006 and related works) first formulated to explain persistent optionality in near-native L2 learners. Following the first version of it, it is not in mastering narrow syntax that instability emerges but rather in mastering properties which imply the interaction of syntax with other cognitive or extra-linguistic factors. Successively, the strong version of the Interface Hypothesis has been revisited in light of a less strictly defined bipartition (White 2011; Sorace 2011, 2012; Montrul 2011, and Montrul and Ionin 2012 on heritage speakers) in favour of a proposal of a complex interplay of several linguistic, non-linguistic and computational factors.

An outstanding finding that emerges from previous studies on null/overt subject pronouns in bilingual language acquisition is the general over-use of overt pronouns in contexts of referent maintenance and no-topic shift whereas monolinguals prefer a null form which is the pragmatically more adequate form. For example, Serratrice *et al.* (2004) observe that in the production of an English-Italian bilingual child, overt subject pronouns are used quantitatively more than in monolingual production. Serratrice (2007) reports the same finding even in case the two languages are both null subject languages. A more extensive study is that of Sorace *et al.* (2009) who for the first time compared results from bilingual speakers of a non null subject and a null subject language (English-Italian) with results from bilingual speakers of two null subject languages (Spanish-Italian). The authors administered an acceptability task on null/overt pronouns and found a robust tendency of over-acceptance of overt subject pronouns in no-topic shift contexts independently of the language combination. This leads Sorace *et al.* (2009) to

suggest that it cannot be only cross-linguistic influence that has a role in the divergent acceptability of overt subject pronouns by monolinguals and bilinguals. The authors suggest that the results can be interpreted in light of the more limited processing resources available to bilingual speakers.

The main purpose of this study is to investigate the acquisition of syntactic-pragmatic competence, that we have seen to be a possible locus of variability, in Finnish-Italian bilingual children through an elicitation task on the distribution of null/overt subject pronouns. Previous research has focused on null and non-null subject languages hence the combination of a partial null subject language (Finnish, see Holmberg 2005; Holmberg *et al.* 2009; Holmberg and Sheehan 2010) and a null subject language (Italian) brings novel data and might be revealing for the discussion on cross-linguistic influence and the role of the contact (dominant) language in bilingual acquisition at the syntax-pragmatics interface. In addition, the results coming from this study maybe discussed under the Underspecification Hypothesis (UH) for which cross-linguistic influence, if present, is attested unidirectionally from the non null subject language to the null subject language (see e.g. Serratrice *et al.* 2004). If the data support the UH we should find cross-linguistic influence from Finnish to Italian and thus a higher rate of overt pronouns in Italian.

### 3. *An overview on subject pronouns in Italian*

Italian is a null subject language with a basic SVO order and a rich verbal morphology that specifies person and number features. In null subject languages a null pronoun is preferred whenever possible (Avoid Pronoun Principle, Chomsky 1981), that is in topic continuity contexts when it refers to a “known entity” that has already been introduced in the discourse or is known because it is “shared knowledge” and thus “less informative” (see also Carminati 2002). It follows that a null subject pronoun is interpreted as the unmarked, unstressed form whereas an overt pronoun is generally used in focus or topic shift contexts and is “more informative”. In studies on L2 acquisition and bilingualism, as reported by Sorace *et al.* (2009), it is only with overt pronouns that a greater variability is shown in the assignment of the antecedent referent whereas with null pronouns such variability does not occur and they strictly obey the above mentioned principles.

The null subject nature of the language directly correlates with the possibility of instantiating VS order (Rizzi 1982, 1986; Burzio 1986 and subsequent works). This kind of inversion is also referred to as *free inversion* (Belletti 2001, 2004). However, this kind of inversion does not occur freely but is strictly related to discourse factors and in particular to a specific kind of focus, new information focus: in fact, a postverbal subject is interpreted as new information, as in (1), drawn from the contexts of the tasks.

- (1) a. Chi è entrato?  
 who is entered  
 'Who has entered?'  
 b. è entrato Paperino  
 is entered Donald Duck  
 'Donald Duck has entered'

Only preverbal subjects can be null (as proposed in Cardinaletti 1997 and subsequent literature) as only weak pronouns can appear in preverbal position (in the sense of Cardinaletti and Starke 1999). Summing up, in null subject languages such as Italian, the alternation of overt and null pronominal subjects and of postverbal subjects is strictly related to the discourse-pragmatic information provided from the discourse context.

#### 4. *An overview on subject pronouns in standard and colloquial Finnish*

Finnish, as mentioned earlier, is a partial null subject language in the classification proposed by Holmberg *et al.* (2009), see also Holmberg and Sheehan (2010). Finnish has a basic SVO order, a rich verbal morphology and no grammatical gender. Null subjects are allowed for first and second person but not for third, except under some specific circumstances.<sup>4</sup> Overt subject pronouns for first and second person are used in a similar way to e.g. null subject languages such as Italian and they are generally interpreted as stressed/contrastive focus. In contrast, third person pronouns (singular and plural) are similar to overt pronouns in non null subject languages such as English and cannot be omitted in main clauses. As a consequence of not having a null referential subject similar to that observed in null subject languages, postverbal new information subjects of the type observed for Italian are not allowed (Dal Pozzo 2012).

However, this is not the whole story. In fact, two sets of pronouns can be detected as Finnish can be broadly divided in two different varieties, standard and colloquial Finnish.<sup>5</sup> Colloquial Finnish<sup>5</sup> differs from standard Finnish in some phonological, morphological, syntactic and lexical aspects (see Karlsson 2008 for a comprehensive description). For the time being we will present the

<sup>4</sup> Third person null subjects are allowed when the subject is non-thematic (e.g. with weather verbs), when the subject is a generic pronoun (e.g. similar to the English 'one'), and when the subject is controlled by an argument in a higher clause. As these cases are behind the scope of the present discussion, they will not be examined any further.

<sup>5</sup> We refer here to the colloquial variety of the Southern part of Finland, in the region of Helsinki. Other colloquial variants of pronouns are e.g. *mie* 'I', *sie* 'you' (Northern Finland) or *mä/mää* 'I', *nä/nää* 'you' (Oulu area). These forms are nevertheless always shortened with respect to the standard ones and thus cannot be omitted.

characteristics which are relevant for the present study. In standard Finnish there are eight personal pronouns, as third person singular and plural have a double form for [+human] and [-human] referents. In colloquial Finnish six subject pronouns are commonly used as the [-human] third person pronouns are generally used for all third person referents, regardless of the [+/-human] feature.<sup>6</sup> Table 1 summarizes the differences between standard and colloquial Finnish for personal pronouns and verb forms.

	Standard Finnish	Colloquial Finnish	
subject pronouns			
	(minä)	mä	I-NOM
	(sinä)	sä	you-NOM
	hän/se	se	s/he-NOM
	(me)	me	we-NOM
	(te)	te	you-NOM
	(he)	ne	they-NOM
reduced verb morphology			
	(minä) menen	mä meen	I go-PRES1sg
	(sinä) menet	sä meet	you go-PRES2sg
	hän menee	se menee	s/he go-PRES3sg 's/he goes'
	(me) menemme	me mennään	we go-PASSIVE.PRES 'we go'
	(te) menette	te meette	you go-PRES2pl
	he menevät	ne menee	they go-PRES3pl

Table 1. Standard and Colloquial Finnish

Colloquial Finnish is characterized by shortenings and assimilations. Shorter pronominal forms and a poorer verbal morphology are generally accepted. In particular, the third person singular and plural forms of finite

<sup>6</sup> The pronoun *se* has a wide use in colloquial Finnish, see for example Holmberg (2005) on the emergence of *sitä* 'it', the partitive of *se*, as an expletive pronoun in colloquial Finnish and Laury (1991), Dal Pozzo and Matteini (2015) on the use of *se* as a definiteness marker.

verbs adopt the same third person singular ending. Recall that this also is the verb form that is widely used in child directed speech and that is considered the most neutral one, close to the infinitive. In addition, the impersonal passive form *-VVn* is used for first person plural. Colloquial Finnish has practically lost the partial null subject status in favour of a non null subject status and, when pronominal, the subject is generally a reduced overt pronoun. This general tendency is evident not only at the clausal level but also in the nominal clause. In fact, possessive pronouns behave in a similar way to subject pronouns. On the one hand, in standard Finnish a possessive pronoun in genitive can be omitted for first and second person but not for third, showing a perfect parallelism with clausal subject pronouns. The possessum always bear a possessive suffix. On the other hand, in colloquial Finnish possessive pronouns are expressed in a reduced form and possessive suffixes are omitted, similarly to clausal pronominal subjects (Dal Pozzo 2007). In addition, another characteristic of colloquial Finnish is that in some (especially western) varieties of colloquial Finnish, but not in the standard one, subjects can be doubled (Holmberg and Nikanne 2006).

- (2) a. Se on Jari lopettanut tupakoinnin.  
*se-3sgbe-PRES3sg* Jari quit-PRTC smoking  
 'Jari has quit smoking'
- b. Ne sai kaikki lapset samat oireet.  
*ne-3pl* get-PAST3sg all children same symptoms  
 'All the children got the same symptoms'
- (adapted from Holmberg and Nikanne 2006: 1)

If doubling occurs, it is always the [+/- human] third person pronoun *se/me'it/they'* that functions as a doubling pronoun. They agree in number but not in person with the lexical subject. When in third person, the verb is typically in the singular form, as also exemplified in Table 1.

To conclude this overview, the division of labor between standard and colloquial Finnish is not so neat and stable but rather colloquial Finnish is undergoing changes. We expect that the participants to our study have been exposed to both varieties of Finnish (and to both settings for null/overt subject pronouns) but that colloquial Finnish might be predominant. This might have as a consequence the fact that Finnish is for the participants a non null subject language rather than a partial null subject language. Unfortunately, this could not be better controlled and a more detailed discussion is left for future research.



## 5. The Study

### 5.1 Methodology and predictions

In this study, we investigate the distribution of null and overt subject pronouns in Finnish and Italian of Finnish-Italian school-aged bilingual children. As we have seen, an overuse of overt subject pronouns is attested in bilingual production, independently of the language combination. Hence, the prediction is that also bilingual speakers of a partial null subject language and of a null subject language will overuse overt subject pronouns in the null subject language.

A storytelling task was adopted to collect data. The task consisted in the telling of three short stories in Finnish and three different short stories in Italian. The material is part of the storytelling task used in Hendriks *et al.* (2014) to investigate referential choice in Dutch. Some additional scenes were included. The stories were different in Finnish and in Italian. To all the children the Finnish part was administered first in reason of the weaker status of Finnish at the time of testing. The Italian part was administered at least two weeks after the Finnish one. Each story has six pages which were presented one-by-one on a laptop screen to the participant. Participants were tested separately and recorded. Participants were asked to tell what is going on in each scene. Each story has two characters of the same gender. The first two pages showed only the first character, in the third page a second character entered in the story and in the fourth and fifth pages the second character was performing an action. The last picture showed again the first character only. In telling what each character did in each scene, the participant chose freely how to refer to the character in topic continuity or topic shift contexts. Each participant was recorded and the recordings were transcribed. Each utterance containing one and only one referring expression was listed. The contexts were further classified in [+topic shift], when the target subject was interpreted as new information and referring to other than the subject of the previous clause, and [-topic shift] when the target subject was interpreted as old information and co-referent with the subject of the previous clause. Recall that in contexts of [+topic shift] full DPs are appropriate in both languages, in Italian also strong pronouns are possible (e.g. the third person overt pronoun *lui/lei* 'he/she'). In [-topic shift] contexts a weak form (e.g. a null pronoun) is preferred in Italian and a third person pronoun *selhän* is preferred in Finnish. Hence, the study aims at eliciting the pragmatically appropriate element (*pro*, overt pronoun, DP) in the [- topics shift] and [+topic shift] contexts.

### 5.2 Participants

The participants to this study are seven Finnish-Italian bilingual children living in Tuscany, Italy (age span 5;7-11, mean age at time of testing

8.6, SD 2.2). The parents provided information on the linguistic background of the children through a biographic questionnaire. The questions included information about the participants' place and date of birth, age of onset of bilingualism, contexts of (minority) language use, frequency of contact with Finnish native speakers or Finnish-speaking contexts (relatives, baby-sitter, friends, hobbies, etc.), language use with siblings, frequency and language of pre-school/nursery/school. In addition, there were also questions about the parents' age, place of birth, L1 and language used to communicate with the other parent and with the child, and if they consider important to sustain bilingualism at home. It emerges that the participants have a quite homogeneous linguistic background. All the children except one (but she moved to Italy at 1 month) were born in Italy from a Finnish mother and an Italian father. The families report to have all adopted the one face-one language method to sustain the bilingual language acquisition of their children even though some of the mothers report to also use occasionally Italian to communicate at present with the children. The parents report to speak Italian to communicate between them. All the children have one sibling with whom they speak both Italian and Finnish. Children also have regular contacts with relatives and friends living in Finland either by visits or phone/skype and they travel to the country for holidays. In addition, all the children participate to the Finnish school that takes place every other Saturday during the school year. All the children have gone to an Italian kindergarten from 12-15 months at earliest and then to an Italian primary school. At early stages of life (0-1) the participants lived in an environment of simultaneous bilingualism, in terms of quantity of input, that switched at the beginning of pre-school/nursery in favour of the environmental language, Italian. As a matter of fact, although the willingness of the families and the positive attitude towards bilingualism, at the age of testing the children are dominant in Italian due to the strong Italian-speaking environment in which the quantity and quality of linguistic input is higher with respect to the minority heritage language, Finnish. Language dominance in production is also evident, for example, from ungrammatical (but intelligible) utterances that emerged across participants from the transcription of the data in Finnish but not in Italian, which were all grammatically correct. In the next section, results are presented on the storytelling task in both Finnish and Italian.

In addition, two control groups of adult native speakers were included, one for Italian ( $n=6$ ) and one for Finnish ( $n=3$ ).

### *5.3 Results*

Seven Finnish-Italian bilingual children participated to the storytelling task both in Finnish (3 stories, 6 scenes each) and in Italian (3 stories, 6

scenes each). The contexts were classified in [+topic shift], which included the scenes where a new referent is introduced, and [-topic shift], which included the scenes in which the character introduced in the scene before performs an action. Examples are given in (3)-(4) for both languages. (3)a and (4)a refer to the first scene and (3)b and (4)b to the second one.

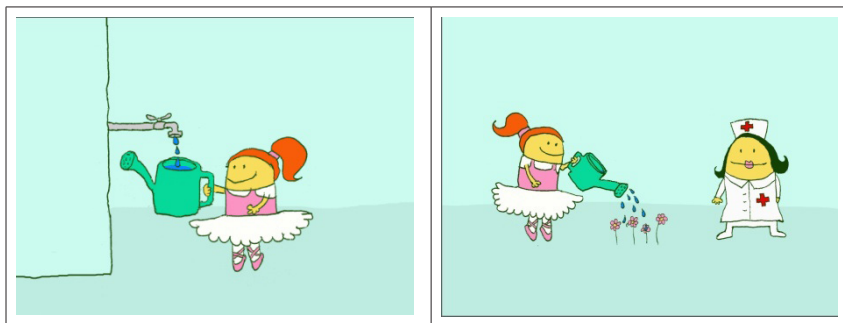


Image 1. Scenes 1-2 from Story 1 (Finnish)

- |        |                             |                              |
|--------|-----------------------------|------------------------------|
| (3) a. | Ballerina ottaa vettä       | [new referent, +topic shift] |
|        | ballerina takes water       |                              |
| b.     | Sitten se kastelee kukkia   | [old, -topic shift]          |
|        | then she waters the flowers |                              |

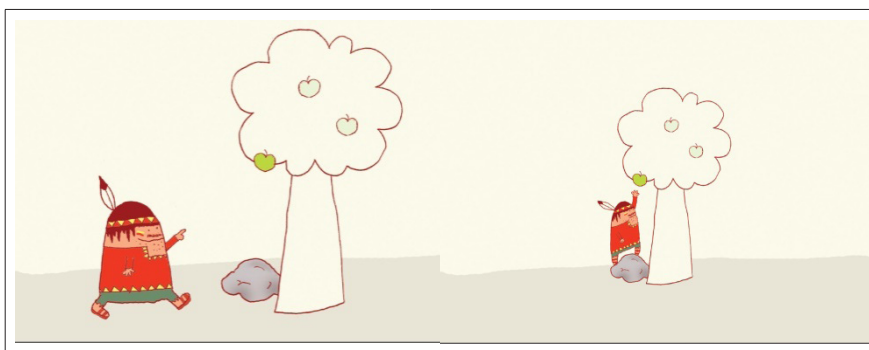
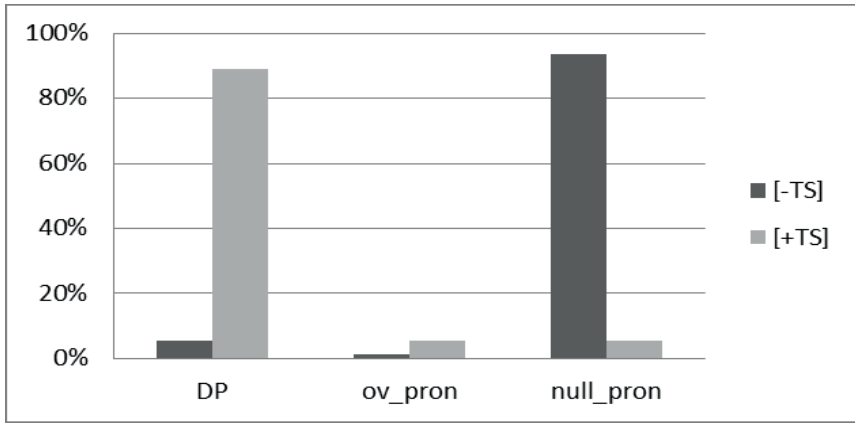


Image 2. Scenes 1-2 from Story 1 (Italian)

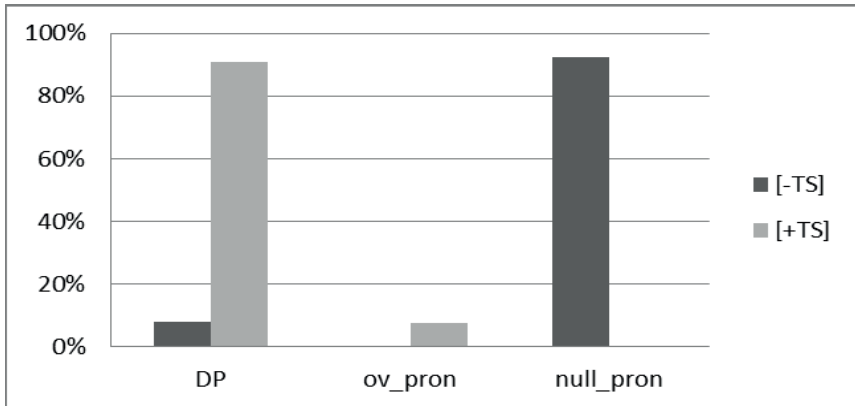
- |        |   |                              |
|--------|---|------------------------------|
| (4) a. | Un indiano vede una mela sull'albero.             | [new referent, +topic shift] |
| b.     | <i>pro</i> prova a prenderla salendo su un sasso. | [old, -topic shift]          |

In the transcription process each listed utterance contains only one referring expression. Referring expressions were coded in *DP*, *overt pronoun*, and *null pronoun* and they were counted for [+topic shift] and [-topic shift] contexts. We first present the results for the Italian task and then for the Finnish one.

As for the Italian version of the task, a total of 148 utterances containing a referring expression were transcribed for the bilingual group. In [-topic shift] contexts (76 utterances) a null pronoun would be the most appropriate referring expression, as we also see from the example above in (4). In [+topic shift] contexts (72 utterances) a full DP is expected. Overt pronouns would be appropriate only in [+topic shift] contexts. As for the Italian control group a total of 142 utterances were transcribed, 65 [+topic shift], 77 [-topic shift]. Graph (1) provide the overall results for the bilingual participants and Graph (2) for the monolingual Italian group.



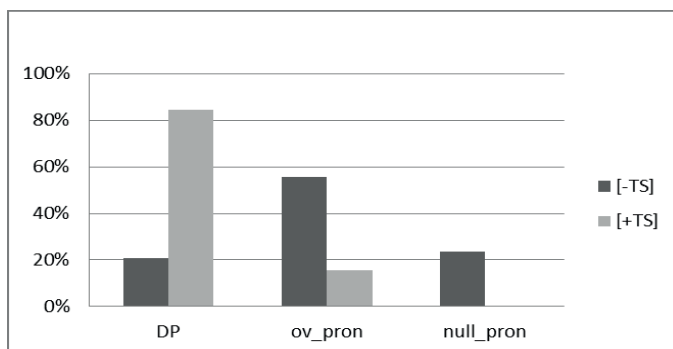
Graph 1. Bilinguals' overall results (Italian)



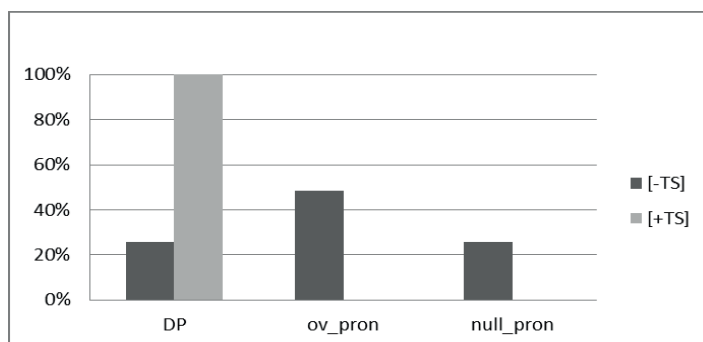
Graph 2. Italian control group: Overall results

As we can see, the bilinguals do not differ almost at all from the monolingual control group. In fact, both groups perform at above chance level and the rate of non-target like patterns is very low. This will be discussed in more detail in the next section.

Let us now turn to the task administered in Finnish. The counted discourse contexts were in total 155 of which 77 [+topic shift] and 78 [-topic shift]. In Finnish, a DP would be the pragmatically most appropriate choice in [+topic shift] contexts and a third person overt pronoun in the [-topic shift] contexts. In Graph 3 the overall results are provided for the bilingual group and in Graph 4 for the Finnish monolingual control group.



Graph 3. Bilinguals' overall results: Finnish



Graph 4. Finnish L1 control group: overall results

The bilingual participants to the study correctly use a DP at above chance level in [+topic shift] contexts even if at a lower rate than the monolingual controls. In both groups, DPs are used at some rate also in [-topic shift] contexts. Overt pronouns is where the two groups diverge more: overt subject pronouns are correctly used in [-topic shift contexts] however, bilinguals, but not monolinguals, produce overt pronouns also in [+topic shift] contexts (15.4%, 12/78). Null pronouns are attested in [-topic shift] contexts, that should be impossible along the lines of the overview on Finnish in section 4. From a closer look to the sentences in which they are used it emerges that the two groups use null subjects in different syntactic contexts: the monolingual group use the null pronouns in coordinated clauses, which is a

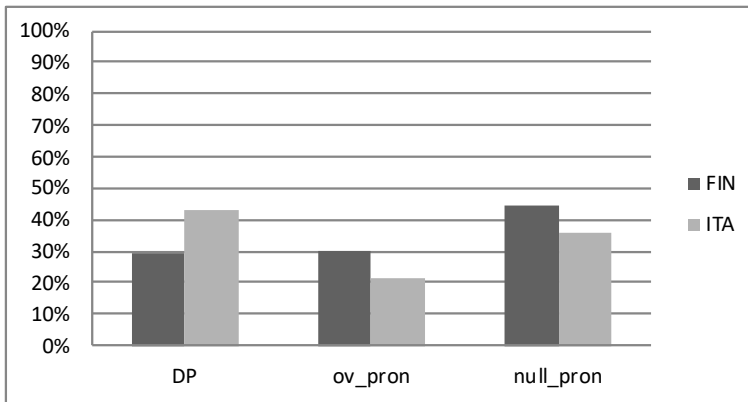
grammatical option in both standard and colloquial Finnish, while the bilingual group show instances of ungrammatical null subjects (cf. section 4). A closer look to non-target like patterns is now at place.

### 5.3.1 Non-target productions

The overall rate of inappropriate referential expressions is 18.9% (27/143) for Finnish and 8.1% (12/148) for Italian. Non-target productions were classified in:

- inappropriate use of a DP in [-topic shift] contexts;
- inappropriate use of an overt pronoun in [+topic shift] contexts in Finnish and in [-topic shift] contexts in Italian;
- inappropriate use of a null pronoun in Finnish (independently of context) and in [+topic shift] contexts in Italian.

We report in graph (5) and in the table below the main results on non-target like productions for Italian and Finnish.



Graph 5. Non-target productions in Finnish and Italian

	DP	ov_pron	null_pron
FIN	29.6% (8/27)	29.9% (7/27)	44.4% (12/27)
ITA	42.8% (6/12)	21.4% (1/12)	35.7% (5/12)

As we can observe from the graph above, the highest rates of non-target productions are with a null pronoun in Finnish and a DP in Italian. This means that bilinguals inappropriately used a null pronoun in Finnish (across contexts) and a DP in Italian (in [-topic shift] contexts). The independent samples t-test on non-target productions in Finnish and Italian reported a statistically significant effect  $t(301) = 2.03, p = .043$ . Thus, in the Finnish ver-

sion of the task bilinguals' productions show a greater variability and non-target productions are produced significantly more than in the Italian version.

Table (2) below provides the detailed description of the non-target like patterns divided for contexts for Finnish. Here, for *null pronoun* only ungrammatical structures were counted (i.e. null pronouns in coordinated clauses were coded as grammatical).

[-TS]	DP	ov_pron	null_pron	TOT.
	8/27	0	11/27	19/27
[+TS]	DP	ov_pron	null_pron	TOT.
	0	7/27	1/27	8/27

Table 2. Finnish: Non-target patterns across contexts

The highest rate of deviant forms occurs with a null pronoun which is used instead of an overt pronoun or a DP (44.4%, 12/27). As a matter of fact, in Finnish third person null pronouns are always ungrammatical both in standard and colloquial Finnish, and both in [+topic shift] and in [-topic shift] contexts. An example is given in (5), in brackets the grammatically correct form.

- (5) a. Täällä on tyttö [*topic*: tyttö 'the girl']  
 (tässä on tyttö)  
 here is girl  
 'There is a girl'
- b. \* \_ haluu pistää vettä kukkasille. [*-topic shift*: se]  
 (se/hän haluaa pistää vettä kukkasille)  
 wants put water flowers-to  
 'She wants to give some water to the flowers' (Ch6: 10;4)<sup>7</sup>

Interestingly, null pronouns are used overwhelmingly in [-topic shift] contexts (cf. Table 2) that is exactly when the null pronoun option is the preferred form in Italian. Another non-target pattern production is the use of an overt pronoun in [+topic shift] contexts when a DP would be the adequate choice (29.9%, 7/27), see example (6). Both of these non-target patterns seem at a first sight to be an effect of cross-linguistic influence from the (dominant) Italian to Finnish.

<sup>7</sup> In order to make data anonymous, names were substituted by numerical coding Ch1, Ch2, Ch3, etc. Age at time of testing is given after colon.

- (6) a. Se anna yks kukka toi tytölle [topic: the nurse]  
 (se antaa yhden kukan tuolle tytölle)  
 it give one flower that girl-to  
 ‘She gives a flower to that girl’
- b. # ja se laittaa hiuksista [+topic shift: the girl]  
 (ja se laittaa sen hiuksiin)  
 and she puts it hair-in  
 ‘and she puts it in the hair’ (Ch4: 10;5)

The third type of no-target production is the use of a DP in [-topic shift] contexts when an overt pronoun would be more appropriate (29.6%, 8/27), see example (7). However, this kind of production can be considered as a “willingness to describe” the picture rather than “to tell a story”.

- (7) a. Kokki pistää kakku uuniin [topic: the cook]  
 (kokki pistää kakun uuniin)  
 cook puts cake oven-in  
 ‘The cook puts the cake in the oven’
- b. # Kokki ottaa kakku [-topic shift: se]  
 (kokki ottaa kakun)  
 cook takes cake  
 ‘The cook takes the cake from the oven’ (Ch6: 10;4)

As seen above, in the Italian version of the task the deviant forms were significantly less than in Finnish and numerically very low (only 12 out of 148 utterances, 8.1%). Table 3 below reports the non-target patterns divided for discourse contexts.

[-TS]	DP	ov_pron	null_pron	TOT.
	6	1	0	7
[+TS]	DP	ov_pron	null_pron	TOT.
	0	0	5	5

Table 3. Italian: Non-target patterns for contexts

The most salient non target pattern is the non-target use of a DP (6/12) in [-topic shift] contexts. Even though a null pronoun would be more appropriate, it might be the case however that the child is just repeating the topic because he is in front of a new scene, and all these scenes have two characters. We can consider the use of a DP in [-topic shift] contexts a task effect given by the willingness to describe the single picture rather than to tell a story, as was the case for Finnish.

- (8) a. e pro incontra una strega [topic: la principessa ‘the princess’]  
 and she meets a witch



- b. # e la principessa da il gelato alla strega [-*topic shift*: pro]  
and the princess gives the icecream to the witch

Also few non-target null pronouns are attested (35.7%, 5/12) in [+topic shift] contexts. In these cases, a full DP would have been the most appropriate option. Also this can be interpreted as a task effect due to the fact that the child is seeing the character which becomes therefore familiar enough to not necessitate to be introduced as “new information”.

- (9) a. la strega lo prende e lo assaggia [*topic*: la strega ‘the witch’]  
b. #*pro* prende un altro euro [+*topic shift*: la principessa ‘the princess’]

Differently from previous results in our data overt pronouns are never overused in Italian, independently of context.

## 6. Discussion

The aim of this study was to investigate the distribution of null and overt pronouns in bilingual speakers of a null subject and of a partial null subject language. Following the Under specification Hypothesis we would have expected a general overuse of overt subject pronouns in the null subject language. Under the Under specification Hypothesis the bilingual children *when faced with a choice that requires the coordination of sophisticated pragmatic knowledge with two syntactic alternatives* (Serratrice *et al.* 2004: 188) could optionally select, in Italian, the *pragmatically unconstrained* option available in Finnish (that is, an overt pronoun). On the contrary, this never happens and our results differ from previous studies such as Serratrice *et al.* (2004) and Sorace and Serratrice (2009) in that we do not observe any overuse of overt subject pronouns in Italian, the null subject language. On the contrary, there seems to be a cross-linguistic influence the other way round, from Italian to Finnish which results in the non-target use of null subjects, an ungrammatical option in Finnish. This is reinforced by another non-target production in Finnish: overt pronouns are also used in [+topic shift] contexts when a DP would be the pragmatically adequate option. Both patterns would be perfectly acceptable in Italian in these contexts. A possible explanation can come from the role of extra-linguistic factors such as differences in the role of the quantity and quality of input and thus in the relation between the two languages in terms of dominance at the time of testing. Finnish in fact is the language to which the participants are less exposed considering both the amount of time and the quality of the input with respect to the Italian stimuli. Hence, a less efficient processing can be expected for the minority language (cf. Sorace and Serratrice 2009), and is effectively attested when subtle properties at the syntax-discourse/pragmatics are involved.

A second interesting result is that the distribution of null and overt subjects is always constrained by discourse pragmatics, also in non-target productions. As a matter of fact, in Finnish null subjects are only used in [-topic shift] contexts when they are interpreted as old information and they are never used in [+topic shift] contexts to express new information. In Italian the small number of null pronouns in [+topic shift] contexts is marginal (5/12). Overall, the results are along the lines of Serratrice *et al.* (2004) in that null arguments are associated with un informativeness even though in Finnish they are used to some extent in a non-target way.

A last complementary result is that the results from the Italian task do not show significant differences from the monolingual control group. The result is interesting because it confirms that at this age the discourse-pragmatic competence necessary for the correct distribution of overt pronominal subjects is already at place and adult-like.

### 7. Concluding remarks

This study aimed at investigating the distribution of null and overt subject pronouns in Finnish-Italian bilingual children after the critical period for the instantiation of the C domain. Data was presented on the choice of referring expressions for the subject of the clause in contexts of topic continuity and topic shift, which are contexts that crucially differ in Finnish and Italian as for the available options due to the different nature of the two languages with respect to the “null subject parameter”: in topic maintenance contexts a null pronoun is preferred in Italian whereas a third person pronoun is expected in Finnish, and in topic shift contexts a DP (or an overt pronoun for Italian) is the pragmatically appropriate option.

Overall, from the production of the null/overt referential expression in the task, it emerges that this group of bilingual children have a good pragmatic competence in both languages but crucially it is not equal. On the one hand, in Italian bilinguals and monolinguals do not diverge significantly. On the other hand, in Finnish a greater optionality emerges as for the use of null and overt pronouns. In particular, ungrammatical null subject pronouns in [-topic shift] contexts are attested and overt pronouns are also used in [+topic shift] contexts instead of a DP.

The discrepancy between the two languages can be considered evidence for the dominance of Italian, the majority language, on Finnish, the minority language. Different from previous studies we do not find an overuse of overt subject pronouns in Italian, the null subject language. Hence, the present data do not provide support for the Underspecification Hypothesis as no influence can be observed from Finnish (PNSL in the standard variety and NNSL in the colloquial variety) to Italian (NSL), rather we observed the contrary.

Due to the small sample of participants and in light of the different results from previous literature, further research might be needed to have a better understanding of the matter.

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