Effects of L2 Exposure on L1 Grammar

Manuela Pinto

1. Introduction

This paper explores the effects of prolonged L2 exposure on L1 grammar. More specifically, it seeks to understand if and to which extent the mental representations of the L1 are modified under influence of the L2 (see Schmid 2011 *inter alia*).This study revolves around the issue of determining, to the extent possible, whether or not specific loci for attrition in L1 grammars can be isolated and, if so, why. Specifically, we will test the predictions in this regard that stem from the Interface Hypothesis, which, in its original formulation, predicts variability in the acquisition of phenomena at the interface between different modules of grammar (Sorace & Filiaci, 2006; Sorace 2011). Accordingly, two main lines of explanation may account for L1 attrition: one based on differences at the representational level, the other on differences in processing resources. The representational approach assumes that bilingual speakers analyze the incoming data and, under certain circumstances that will become clearer later, adapt the mental representation they have of a certain L1 construction so that it can fit both languages (the L1 and the L2). In other words, the source of interference is here seen as an internal mental process of grammar building/restructuring. Sorace (2011) discusses some drawbacks of the representational view and suggests that a processing approach, capitalizing on the difficulty of integration of information from various cognitive modules juxtaposed in the bilingual mind with limitation of processing resources (e.g. inhibition), may have more explanatory power.

Another issue brought up by the Interface Hypothesis (henceforth IH) is a possible distinction between internal vs. external interfaces. Internal interfaces involve sub-modules of the computational system, like syntax-semantics, or syntax-morphology, whereas external interfaces involve the computational system as a whole in its interaction with other cognitive systems. According to Tsimpli & Sorace (2006) and Sorace (2011), only external interfaces are vulnerable for interference effects in bilingualism. As observed in White (2011), and corroborated by many empirical studies (see e.g. Bohnacker 2010; Donaldson 2010, 2011; Rothman 2009; Ivanov & Slabakova 2011; Slabakova, Rothman & Kempchinsky 2011), this divide between internal and external interfaces may be too simplistic and thus fails to capture the factors that make certain constructions more vulnerable to L2 interference than others. As argued in Rothman & Slabakova (2011), the real question to ask is why some properties are more problematic for acquisition than others. This may require a disentangling of the different grammatical layers that form a specific phenomenon and study their basic properties. The goal of this paper is to offer a contribution to this discussion.

The constructions under examination are overt and null subjects in Italian L1, Dutch L2. Drawing on the considerations exposed above, we distinguish two aspects of these pronouns. One aspect involves core-grammatical properties, specifically syntactic arguments, subject pronouns, that are licensed by a language-specific grammar and have syntactic (uninterpretable) features mapped to their morphophonological forms responsible for their agreement properties and render their referentiality transparent. The other aspect associated to referential pronouns involves their discourse-pragmatic properties: at a discourse-pragmatics level these elements mark the function of discourse-trackers. The questions we want to answer are: 1) is there L1 attrition at the level of anaphora resolution, i.e. in the

process of identification of the referent of the pronoun? 2) Is there L1 attrition at the level of discourse-pragmatics, i.e. in the calculation of the Topic-shifting or Topic-maintenance (±T-Shift) value of the pronoun?

The two languages considered here, Italian L1 and Dutch L2, are typologically different (null subject versus non-null subject language). The array of pronominal forms and the properties necessary to interpret them are provided by the language specific core grammar (e.g. their morphosyntax). Rules of grammar determine which antecedent(s) may be eligible as a possible referent(s) for the pronoun. Is there any form of interference (L1 attrition) expected at this level? According to the restricted version of the IH, the answer is "no", since these properties are part of the core grammar of language, involving internal interfaces. Assuming Schwartz & Sprouse (1996)'s Full Transfer Full Access, L1 speakers are, in principle, able to reset the parametric values for the L2. At the level of discourse-pragmatics, constraints of a different nature interact (contextual felicitousness) with the context, determining which discourse function these pronominal forms may have. It is at this level that the underspecification of interpretable features plays a role. The languages considered here, Italian and Dutch, show at a discourse-pragmatics level the same degree of specificity, by mapping distinct interpretations into distinct forms. The representational approach predicts no L1 attrition, as both systems are comparatively complex. The results found in this study seem to confirm the predictions above. For both the comprehension and the production task, the data of the experimental group show a striking similarity with the data of the control group.

The paper is organized as follows: section 2 introduces the theoretical framework in which this research is placed: Tsimpli et al. (2004)'s representational account for data on L1 attrition in Italian and Greek with English L2, and Sorace (2011)'s IH and critical comments on this approach. Section 3 presents a description of the distributional and interpretive patterns of (preverbal) subject pronouns in Italian and in Dutch, based on recent studies on subject Topics. Taking these patterns as the (new) baseline for the two languages under discussion, the representational view predicts no L1 attrition in Italian. Section 4 presents the methodology adopted in this study for the collection of the data. The results and the discussion of the Picture Verification Task are presented in section 5, those of the elicited narrative task in section 6. The paper closes with some conclusions and suggests some directions for future research.

2. Theoretical Background

2.1. The representational approach

Tsimpli et al. (2004) addresses L1 attrition from a representational point of view. With regard to the Italian/English language pair, it reports attrition in Italian L1, emerging as overextension of the use of overt pronouns in contexts in which in Italian the null subject is normally required. Tsimpli et al.'s explanation for these data relies on the distinction between interpretable versus uninterpretable features and on considerations of economy (Chomsky, 1995). Along this view, the ± Topic-Shift interpretation associated with overt subject pronominal forms is an interpretable feature that remains visible at Spell-Out. Languages differ in the degree of specification of such interpretable features. Italian makes a distinction between different (pronominal) forms, each form being associated with a specific interpretation. English, on the contrary, does not have this one-to-one mapping between form and interpretation, and is said to be underspecified with regard to the ± Topic-Shift distinction. Considerations of economy on representations are then responsible for a shift from the more complex system to the less complex one, so that the more specific interpretive distinctions of one language slowly fade away, preferring the less specific ones of the other language. In the case at stake, Italian has a more complex feature specification pattern than English. So L1 attrition is revealed by a redundant use of overt subject forms, according to the pattern of the less specified language system.

2.2. Possible drawbacks of the representational approach

Sorace (2011) critically reviews this account observing that the representational view predicts that typologically related languages sharing the same parametric choices should not show any such instances of L1 attrition. These expectations are not empirically confirmed. Recent studies on anaphora resolution in Spanish-Italian bilinguals (Bini, 1993, Sorace et al., 2009; among others) found an over-

extended use of overt subject forms, even if these forms are not present in the target language. These data are unexpected under the representational approach, as Spanish and Italian are generally assumed to share the same syntactic and discourse-pragmatic rules (and hence the same abstract representation) of subject topics. However, the typological vicinity of certain languages may be over-estimated. Filiaci (2010) – as also reported in Sorace (2011) – argues that overt subjects in Spanish and in Italian may not share the same discourse-pragmatics properties. Hence, these data do not straightforwardly or unambiguously question the representational approach. Rather, they call for a more detailed analysis of the formal and interpretive properties that characterize pronominal subjects in different languages. The present study aims at contributing to this goal.

3. Italian L1, Dutch L2

Italian and Dutch are not typologically related, yet at a discourse-pragmatics level, they show the same degree of specificity in mapping form into meaning with regard to subject pronouns. This language pair thus offers the perfect combination of properties to test the representational approach at an empirical level.

3.1. Italian and Dutch subject pronouns

Following Frascarelli (2007), we argue that Italian distinguishes three types of subject pronouns: overt strong pronouns, overt weak pronouns and null pronouns. The distinction between overt strong and overt weak is one based on phonological properties. A strong pronoun has a L*+H prosodic contour and it is base-generated in the C-domain. When a strong pronoun is used, it signals the introduction of a new topic into the discourse. A weak pronoun is characterized by a L* contour, and it corresponds in both syntactic position and its referential distributive properties with *pro*. Both *pro* and the weak overt pronoun are argued to be in Spec, AgrS and signal a Familiar Topic.

Van Kampen (2010) offers a detailed analysis of Topic-Shift in Dutch and the consequences that this distinction has for the use of pronouns in this language. The distinction between d-pronouns (demonstrative pronouns *die/dat*) en p-pronouns (personal pronouns *hij/ie/zij/ze*) is explained by assigning the former - and not the latter - the specific function of Topic shifter. P-pronouns are agnostic with respect to a discourse-pragmatics interpretation; they just provide the correct antecedent for the pronoun. Conversely, D-pronouns respect a number of structural conditions – they refer to the Focus of the previous clause, and they occupy an A´- position at the left periphery of the clause.

Slightly simplifying these two analyses, we propose the following overview of form-to-interpretation mapping of subject pronouns in Italian and Dutch:

Table 1: Forms and interpretation of subject pronouns in Italian and Dutch

	Syntactic Reference	**Discourse (+TS)**
Italian	*pro* / overt pronouns (*L)	overt pronouns (L*+H)
Dutch	p-pronouns	d-pronouns

From the above analyses the following picture emerges. Both languages have a set of pronouns that serve syntactic reference and are neutral with respect to discourse. Yet, both languages also have a specific pronominal form that serves the discourse-pragmatic function of signaling a shift in the Topic: the prosodically strong overt pronoun in Italian and the d-pronoun in Dutch.

3.2. Predictions according to the representational view

According to Tsimpli et al. (2004), L1 attrition is predicted in the case of underspecification of interpretable features in one of the two languages. Considerations of economy determine the direction of interference (the less complex system influences the most complex one). If the analysis of subject pronouns in Italian and Dutch presented above is correct, it predicts no interference between these two systems, as both show the same degree of specification at the level of discourse-pragmatics. Both languages have a specific pronominal form for signaling a Topic-Shift, and in both cases, that form is said to occupy an A´-position in the left periphery of the clause.

4. Method

4.1. Participants

The experimental group consisted of 12 Italian L1, Dutch L2 speakers, between 30 and 70-years-old, who had been living in the Netherlands for at least 8 years, and who had resided in Italy, at a minimum, until they were 18. The control group consisted of 19 age-matched native speakers of Italian, living in Italy with none or marginal knowledge of a foreign language. All bilingual participants were asked to take a proficiency test in Dutch (a cloze-test), and fill in a sociolinguistic questionnaire. Both measures were used to explain possible outliers (Boë, 2012).

4.2. Comprehension versus production: two tests

As observed in Hendriks & Koster (2010) for first language acquisition and Prévost and White (2000) for adult second language acquisition, among many others, all instances of language development or language transition (including all the many cases of bilingualism in which I include L1 attrition) may show a discrepancy between comprehension and production. Therefore, both groups were offered two different tests, a picture verification task (PVT) for comprehension and an elicited narratives task (for production).

The PVT tested the interpretation of overt subject pronouns and null subjects in a context of inter-sentential anaphora and cataphora. For each of the four conditions five test sentences were offered, intermixed with fillers and in randomized order. The 20 test sentences consisted of a main clause, containing a 3rd person singular subject, a transitive verb, and a 3rd person singular object, matching the subject in gender and number, and in a temporal clause consisting of either a null subject or an explicit 3rd person singular pronoun, an (in)transitive verb, and, possibly, an object. The eight fillers consisted of two conjoined sentences with null and overt subject pronouns. As illustrated below, the test sentences are ambiguous, as the antecedent of the pronoun in the embedded clause can either refer to the subject of the main clause, or to the object, or to an exophoric antecedent (indicated with l). Participants were asked to choose out of three pictures the one (or more than one) that best represented the sentence. Multiple choices were grouped into a separate category, 'undecided', and as such they were treated in the statistical analysis and represented in the graphs.

(1)   Anaphora with null subject:
    Il bambino$_i$ accarezza il cane$_k$ mentre Ø$_{i/k/l}$ mangia.
        'The boy$_i$ caresses the dog$_k$ while Ø$_{i/k/l}$ eats'

(2)   Anaphora with overt subject:
    Il bambino$_i$ accarezza il cane$_k$ mentre lui$_{i/k/l}$ mangia.
        'The boy$_i$ caresses the dog$_k$ while he$_{i/k/l}$ eats'

(3)   Cataphora with null subject:
    Mentre Ø$_{i/k/l}$ mangia, il bambino$_i$ accarezza il cane$_k$.
        'While Ø$_{i/k/l}$ eats, the boy$_i$ caresses the dog$_k$'

(4)   Cataphora with overt subject:
     Mentre lui$_{i/k/l}$ mangia, il bambino$_i$ accarezza il cane$_k$.
       'While he$_{i/k/l}$ eats, the boy$_i$ caresses the dog$_k$'

The frequencies obtained for each choice of antecedent and for each of the four conditions were transformed into percentages (the two groups did not have the same number of participants) and submitted to a Chi-square test. The *p* obtained in each of the four statistics was not significant.

According to Carminati (2002; 2005), Italian speakers resolve ambiguity by interpreting the null subject as co-referent with the element in the highest position in the main clause, and the overt pronoun as co-referent with the element in a lower position. This Preference of Antecedent Selection (PAS) is a processing strategy applied when the interpretation of the pronoun gives ambiguity. Notice, however, that the PAS is used to identify the referent of a pronoun, not its discourse-pragmatic function. When no ambiguity is at stake, speakers appear to be more flexible and interpret the pronoun using information contained in the context like, for instance, agreement morphology on the finite verb. The discourse-pragmatic function of a pronoun (its ± Topic Shift value) may be intuited from its position in the clause, as observed by Carminati, but in addition to that both Italian and Dutch have a specific form – the overt L*+H pronoun in Italian and the d-pronoun in Dutch – that signals the introduction of a new Topic.

In order to understand how discourse-tracking devices are used in Italian and whether these are subject to attrition in an L2 environment, both groups were also offered a production task. In such a task the speaker is free to choose the constructions (s)he wants and may circumvent ambiguities in reference by using different cognitive/linguistic tools that make the interpretation of pronouns more straightforward. In this way, we hoped to be able to discriminate those mechanisms that are necessary for reference, from those that provide information about the function of these elements in the discourse. Participants were asked to tell a story based on the Frog Story picture book. The produced narratives were tape-recorded, transcribed, and submitted to a qualitative analysis. They were scrutinized on the use of subject forms (lexical subjects, overt pronouns, NS), discourse-pragmatics interpretation (±Topic-Shift), redundancy/ambiguity, and differences between the two groups.

## 5. Experiment 1: The Comprehension Test (PVT)
5.1. Results of experiment 1

Graphs 1 and 2 show the results for anaphora resolution in the null subject condition and in the overt subject pronoun condition. When the subject of the embedded sentence is a *pro*, the preferred antecedent for the control group (CG) is 43% of the cases the subject and 33% the object of the main clause. The experimental group (EG) shows a slight preference, 38%, for co-reference with the subject, versus 28% for the object. Chi-square = 0, df = 3, *p* = 1.

Graph 1: Anaphora with null subjects
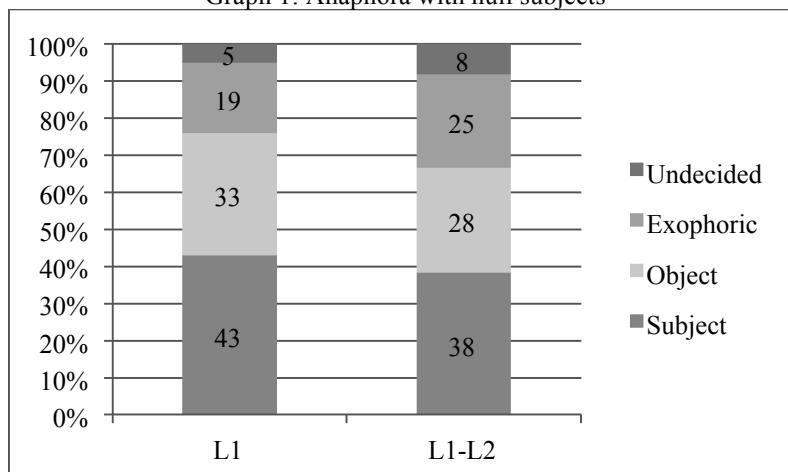
In the overt subject pronoun condition, both groups show similar results (CG 45% vs. EG 48%) in their preference for the object as antecedent. As shown in Graph 2, the subject option was dispreferred by both groups (CG: 27%, EG: 25%). Chi-Square = 0.25, df=3, p = 0.9691

Graph 2: Anaphora with overt subject pronoun
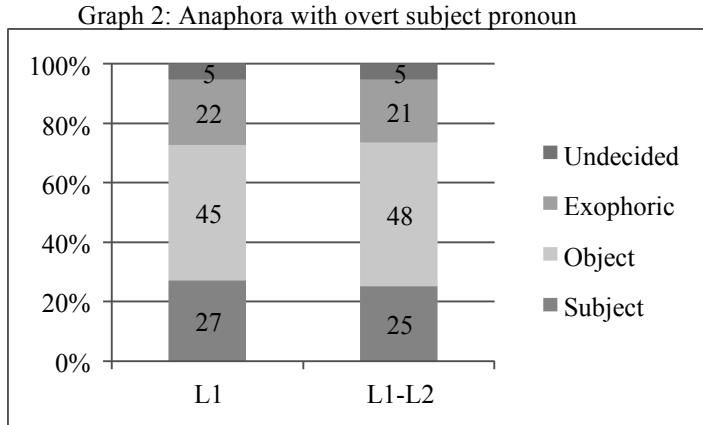
Graphs 3 and 4 show the results in cataphoric constructions, where the pronoun precedes its antecedent. In both conditions the two groups show similar results. When the subject is null, the two groups prefer the subject of the main clause as antecedent (CG: 65% vs. EG: 60%). The object is chosen 28% by the CG and 30% by the EG. The CG chooses the option ´other´ 5% of the times, whereas the EG chooses it 10%. Chi-Square = 2.88, df = 3, p = 0.4105.

Graph 3: Cataphora with null subject
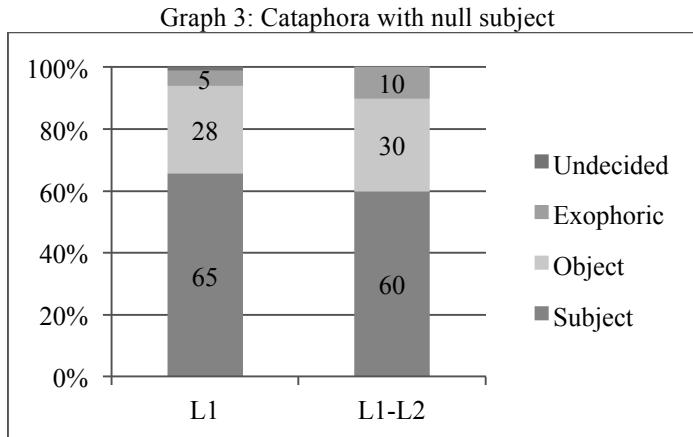
When the embedded subject is overt, the preferences of both groups are more evenly distributed. The exophoric antecedent is chosen 34% by the CG, and 30% by the EG. The object is chosen 36% by the CG and 35% by the EG. In this condition also the subject is considered as a potential antecedent: CG: 26% vs. EG: 35%. Chi-Square = 5.86, df = 3, p = 0.1186.

Graph 4: Cataphora with overt subject pronoun
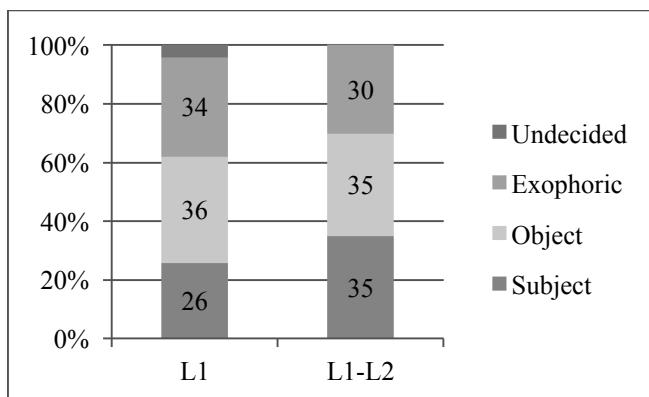
Since the test sentences were not contextualized, they allowed for multiple answers. In order to supply the lack of context, both groups appeared to rely on a standard processing strategy that calculates the possible antecedent on the base of its position in the structure (PAS).

5.2. Discussion of experiment 1

The results of the PVT are summarized in Table 2.

Table 2: Results PVT (Italian L1, Dutch L2)

Condition	Preferred antecedent
anaphora + null subject	subject/object
anaphora + overt pronoun	object
cataphora + null subject	subject
cataphora + overt pronoun	other/object

The first observation is that these data do not seem to show L1 attrition, since both groups share the same preferences. Our prediction seems thus to be confirmed, that is, no signs of L1 attrition is attested. The question that arises at this point is whether the absence of L1 attrition may not just derive from the fact that these participants have not spent enough years abroad for attrition to set in at all. This hypothesis, however, is not supported by the data. As illustrated in table 3, eleven of the twelve participants at the time of the recordings had resided in the Netherlands for at least 10 years.

Table 3: Background information about the experimental group.

Participants ID	Years of Residence in the NL	Age of Arrival in the NL	Score Cloze-test in %
LC	54	20	72
GG	52	21	n.a.
SP	51	18	73
MC	50	18	86
BT	41	22	61
LR	34	19	57
GC	32	24	60
IM	32	23	97
TB	22	23	86
GCa	14	27	86
KW	10	30	n.a.
EG	8	40	94

Mean years of residence: 33; S.D.: 16,11; Range: 8 to 54.

In order to get an estimate of the strength of the association between the preferred choices in the PVT, on one side, and the Years of Residence in the Netherlands and the scores at the C-test on the other, the ETA coefficient was computed on each of the four conditions. The four values for the association between the PVT preferences and the variable 'Years of Residence' were: 0.567; 0,605; 0,647; and 0,666. Whereas the values for the association between the PVT scores and the C-test scores were: 0,574; 0,634; 0,678; and 0,712. The interpretation of these values, on a scale between 0 and 1, indicates the strength of the association between the continuous and the nominal variables. In these eight cases the strength of the association is reported to be between moderate and strong. ETA is a measure of association, hence it does not tell us the relationship between the two variables is significant. A test of significance, however, requires a larger population. The possible effect of years of residence and proficiency in Dutch on people's preferences should be therefore further investigated with larger groups of participants.

The PVT was used to compare our data with those of Tsimpli et al. (2004), and to test the predictions of a representational account. Tsimpli et al. report a clear misinterpretation of overt subjects in the anaphora + overt subject condition, making them co-refer with the subject of the main clause, instead of with the object, as chosen by the control group. Our data do not show this over-extension of overt subjects. What they do show is an over-extension of Null Subjects in the anaphora + null subject condition. This phenomenon has already been observed in other studies (Montrul, 2004; Rothman, 2007, 2009; among others). Foreshadowing the discussion about the production data we will see in the next section, we suggest that the over-extension of null subject in the PVT reflects a commonly used interpretive strategy in production, one exploiting cues (like for instance agreement features) present in the context, instead of relying on structural properties that have processing manifestations, like the PAS.

6. Experiment 2: The Production Test (Elicited Narratives)

In the PVT both groups showed an overproduction of null subjects. This result raises two questions: 1) do the production data confirm this pattern? And 2) are the produced null subjects ambiguous? For the production task narratives were elicited by using Mayer's Frog Story, a booklet consisting of 28 pictures and no text (Berman & Slobin, 1987, 1994). In order to reduce to a minimum the use of gestures and deictic forms, participants were asked to pretend to tell the story to an imaginary child that would hear the recordings afterwards. The narratives were video-taped with Flip and transcribed following the CLAN conventions. All unclear utterances, and all comments of the experimenter were obviously not included in the analysis. Similarly, direct speech, impersonal constructions, and idioms were not considered. For each new referent introduced into the conversation its form was reported, and also the type of construction it was embedded in. So a main character in Italian is often introduced by means of a presentational sentence. However, a less important character can be introduced as an indefinite in the complement position of a lexical verb. Each utterance containing a finite verb was considered as a unit. All units were scrutinized for their formal properties, i.e. DPs, overt pronouns, null subjects and so on, and for their anaphoric properties, i.e. the antecedent (the boy, the dog, the frog, the deer, etc.) the pronouns refers to. In addition, the discourse-pragmatic function of each subject was examined and assigned to one of the following three categories: new topic, topic maintenance, and re-introduction of an old topic or of part of it. Importantly, the first occurrence of a referent into the discourse was not sufficient to mark it as a new topic. True new topics were considered those elements that for the first time showed up in subject position. A crucial distinction was made between new topics (the first occurrence) versus topic re-introduction. The latter is the case of a referent that was already topic, then moved to the background, and finally comes back again as a topic or as a part of it. Topic maintenance is the case of subsequent units in which the topic does not change.

The aim of this study is trying to disentangle properties belonging to core grammar, from properties at the interface between the computational system and discourse use. While we suggested the PVT is particularly revealing for reference assignment, we think a production task like the one used here may be more adequate for the study of discourse-pragmatics competencies and may reveal possible interference effects between the two languages at this level.

Tsimpli et al. (2004)'s hypothesis predicted attrition as the result of underspecification of interpretable features: The language with the less complex feature system influences the one with the most complex system. Unlike the case of English and Italian or Greek examined in Tsimpli et al., both

Italian and Dutch have a specific form - the overt L*+H pronoun in Italian, and the d-pronoun in Dutch – that relate to specific discourse function of signaling Topic shift. Both languages have a complex paradigm of interpretable features, so there is no economy reason for preferring one system above the other. The prediction is thus that contact between these two languages will not induce interference; hence no L1 attrition is expected by the representational approach. Conversely, by the latest instantiation of the IH, this domain, unlike the former above, should be subject to some detectable level of processing-based attrition because such is hypothesized to obtain as a byproduct of bilingualism. In other words, L1/L2 pairing should not preclude some level attrition here, even if the L1/L2 can co-occur to make signs of attrition more polarized for some language pairings (see Sorace 2011).

6.1. Results and discussion of experiment 2

As explained in the previous section, all utterances were scrutinized for:
- Type of subjects (DPs, overt pronouns, null subject)
- Type of antecedent for pronominal subjects
- Discourse-pragmatic function of subjects
- Strategies for Topic Shift

The qualitative analysis and the frequencies calculated so far give the following picture:

Table 4: Data analysis

	New Topic	**Topic Maintenance**	**Topic Re-introduction**
L1 Italian	Overt subjects (names, DPs)	Null subjects	Various forms (20% null subjects)
L1 Italian L2 Dutch	Overt subjects (names, DPs)	Null subjects	Various forms (19-30% null subjects)

These preliminary results do not seem to reveal a significant difference between the two groups in the use of subject pronouns. Recall that both languages have specific forms to signal Topic-Shift, so the two systems are equally complex. The expectation is thus that with regard to the distribution and interpretation of subjects, these two languages should not compete in terms of economy. Since contact with Dutch L2 does not seem to affect the mental representation of the pronominal paradigm in Italian L1 at any level, morphosyntax (experiment 1) or syntax-discourse (experiment 2), the whole picture that emerges from the data seem to be consistent with the predictions of the representational account and at odds with the expectations of the IH account of L1 attrition.

However, another reason for choosing this data elicitation technique was the expectation that one could gain insight into alternative strategies for anaphora resolution and discourse tracking. The data show an overproduction of null subject for both groups, a result seemingly unexpected by both accounts of L1 attrition focused on here, yet no ambiguity arises. Topic-Shift in combination with null subject appears to occur in environments where the context provides cues for the identification and interpretation of null subjects. Below, two such cases are illustrated. Under each fragment the alternation of different Topics is marked with indexes.

a. Topic-Shift with null subject and contextual information:
C'era una volta un bambino di nome Peppe, che amava gli animali e aveva un cagnolino e una piccola rana che teneva dentro un barattolo per evitare che scappasse.
'Once upon a time there was a boy called Peppe, who loved animals and Ø had a little dog and a small frog that Ø kept in a jar to prevent that Ø would run away'
[a boy ...]$_i$ [who$_i$ loved ...] [pro_i had a frog$_j$ ...] [pro_i kept ...] [pro_j run away]

b. Topic-Shift with null subject and grammatical cues

A un certo punto il bambino col cane si svegliano e cercano il ranocchio. Cos'è successo? Il ranocchio non c'è più dentro il vaso, è scappato. E quindi si mettono alla ricerca del ranocchio.

'At a certain point the boy with the dog wake up and Ø look for the frog. What happened? The frog is no longer in the jar, Ø is gone. So Ø start looking for him.'

[[the boy with the dog]$_i$ wake up] [*pro*$_i$ look for [the frog]$_j$] [[the frog]$_j$ is …] [*pro*$_j$ is gone] [*pro*$_i$ start looking …]

(a) and (b) show that Italian has more resources for signaling a change in the Topic. In (a) the context supplies sufficient semantic information for the identification of the referent of the null subject and for its discourse function. Similarly in (b), the presence of grammatical cues – agreement morphology on the verb – makes the use of an overt pronoun redundant. Orsolini et al. (1996) in a study of Italian children's narratives, observe similar facts. Hence, production data show that in the case of spontaneous speech the PAS plays a minor role; Null Subjects are frequently used and ambiguity is avoided by exploiting cues from the context.

These data raise new questions. One concerns the reason for the system to allow alternative processing strategies. Is there a gradation in economy among them? Another question involves, again, the issue of language contact. The data discussed above do not show any difference between the two groups. Is the absence of L1 attrition in this specific condition the result of the choice for the more economical system? Since L1 Italian has a richer morphology than Dutch L2, it may favor the use of strategies based on contextual information rather than on structural properties.

7. Conclusions

A PVT and an elicited narratives task performed by 12 L1 Italians with Dutch L2 and 19 Italian monolinguals showed no evidence for attrition in the licensing and use of subject pronouns in Italian. These results support the hypothesis defended here, that, according to a representational view, predicts no interference between languages that have comparable complexity at the level of interpretable features. The absence of L1 attrition was expected, since both Italian and Dutch, at a discourse-pragmatics level, have a one-to-one mapping between form and interpretation. The data from the production task also provided novel insights in alternative processing strategies adopted in (semi)spontaneous speech, that seem to exploit contextual information rather than structural properties. The question remains open whether these choices are motivated by considerations at the level of grammar representation, or depend on processing skills.

References

Berman, Ruth A. & Dan I. Slobin. 1987. "Five ways of learning to talk about events: A crosslinguistic study of children's narratives". Berkeley Cognitive Science Report No. 46, Institute of Cognitive Studies, University of California, Berkeley.

Berman, Ruth A. & Dan I. Slobin. 1994. *Relating events in narrative: A crosslinguistic developmental study*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Bini, Milena. 1993. "La adquisicion del italiano: Mas alla de las propiedades sintacticas del parametro pro-drop." *La linguistica y el analisis de los sistemas no nativos* ed. by Juana M. Liceras, 126-139. Ottawa: Dovehouse.

Boë, Louise. 2012. "L'attrito dei pronomi soggetto in italiano (L1) negli emigranti italiani residenti in Olanda. Una ricerca sull'influenza della sintassi e della pragmatica della L2 sulla L1". Unpublished Bachelor thesis. Utrecht University. [Title transl.: Subject pronoun attrition in the L1 of Italian immigrants living in the Netherlands. A study on the influence of the syntax and pragmatics of the L1 on the L2.]

Bohnacker, Ute. 2010. "The clause-initial position in L2 Swedish declaratives: Word order variation and discourse pragmatics." *Nordic Journal of Linguistics* 33.105-143.

Carminati, Maria Nella. 2002. *The processing of Italian subject pronouns*. Unpublished doctoral dissertation, University of Massachusetts at Amherst.

Carminati, Maria Nella. 2005. "Processing reflexes of the Feature Hierarchy (Person > Number > Gender) and implications for linguistic theory." *Lingua* 115.259–285.

Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, MA: MIT Press

Donaldson, Bryan. 2011. Left dislocation in near-native French. *Studies in Second Language Acquisition* 33. 399-432.

Filiaci, Francesca. 2010. "Null and overt subject biases in Spanish and Italian: A crosslinguistic comparison." *Selected proceedings of the 12th Hispanic Linguistics Symposium* ed. by Claudia Borgonovo, Manuel Espanol-Echevarria & Philippe Prevost, 171-182. Somerville, MA: Cascadilla Proceedings Project.

Frascarelli, Mara. 2007. "Subjects, topics and the interpretation of referential *pro*. An interface approach to the linking of (null) pronouns." *Natural Language and Linguistic Theory* 25.691-734.

Hendriks, Petra & Charlotte Koster. 2010. "Production/comprehension asymmetries in language acquisition," *Lingua* 120.1887-1897.

Montrul, Silvina. 2004. "Subject and object expression in Spanish heritage speakers: a case of morphosyntactic convergence." *Bilingualism: Language and Cognition* 7.125–142.

Orsolini, Margherita, Franca Rossi & Clotilde Pontecorvo. 1996. "Re-introduction of referents in Italian children's narratives." *Journal of Child Language* 23.465-486.

Rothman, Jason. 2007. "Heritage speaker competence differences, language change, and input type: Inflected infinitives in Heritage Brazilian Portuguese." *International Journal of Bilingualism* 11.359-389.

Rothman, Jason. 2009. "Pragmatic Deficits with Syntactic Consequences: L2 Pronominal Subjects and the Syntax-Pragmatics Interface." *Journal of Pragmatics* 41.951-973.

Rothman, Jason & Rumiana Slabakova. 2011. "The Mind-Context Divide: on acquisition at the linguistic interfaces." *Lingua* 121.568-576.

Slabakova, Rumiana, Jason Rothman & Paula Kempchinsky. 2011. "Gradient competence at the Syntax-Discourse Interface." *Eurosla Yearbook 11*.218-243.

Schmid, Monika S. 2011. *Language Attrition*. Cambridge: Cambridge University Press.

Sorace, Antonella. 2011. "Pinning down the concept of "interface" in bilingualism." *Linguistic Approaches to Bilingualism* 1.1-33.

Sorace, Antonella & Francesca Filiaci. 2006. "Anaphora resolution in near-native speakers of Italian." *Second Language Research* 22.339-368.

Sorace, Antonella & Ludovica Serratrice. 2009. "Internal and external interfaces in bilingual language development: beyond structural overlap." *International Journal of Bilingualism* 13.195–210.

Sorace, Antonella, Ludovica Serratrice, Francesca Filiaci, & Michela Baldo. 2009. "Discourse conditions on subject pronoun realization: Testing the linguistic intuitions of older bilingual children." *Lingua* 119.460-477.

Schwartz, Bonnie D. & Rex A. Sprouse. 1996. "L2 cognitive states and the full transfer/full access model." *Second Language Research* 12.40-72.

Tsimpli, Ianthi-Maria, Antonella Sorace, Caroline Heycock & Francesca Filiaci. 2004. "First language attrition and syntactic subjects: a study of Greek and Italian near-native speakers of English." *International Journal of Bilingualism* 8.257-277.

Tsimpli, Ianthi-Maria & Antonella Sorace. 2006. Differentiating interfaces: L2 performance in syntax-semantics and syntax-discourse phenomena. *Proceedings of the 30th Annual BUCLD* ed. by David Bamman, Tatiana Magnitskaia & Colleen Zaller, 653–664. Somerville, MA: Cascadilla Press.

Van Kampen, Jacqueline. 2010. "Anaphorische middelen voor topicverschuiving." *Nederlandse Taalkunde* 15.2-3.

White, Lydia. 2011. "Second Language Acquisition at the Interfaces." *Lingua* 121.577-590.

Selected Proceedings of the 5th Conference on Generative Approaches to Language Acquisition North America (GALANA 2012)

edited by Chia-Ying Chu,
Caitlin E. Coughlin, Beatriz Lopez Prego,
Utako Minai, and Annie Tremblay

Web access and citation information

This entire proceedings can also be viewed on the web at www.lingref.com. Each paper has a unique document # which can be added to citations to facilitate access. The document # should not replace the full citation.

This paper can be cited as:

Pinto, Manuela. 2014. Effects of L2 Exposure on L1 Grammar. In *Selected Proceedings of the 5th Conference on Generative Approaches to Language Acquisition North America (GALANA 2012)*, ed. Chia-Ying Chu et al., 79-89. Somerville, MA: Cascadilla Proceedings Project. www.lingref.com, document #3069.