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ABSTRACT

In this work on code-switching, we will discuss agreement relations which take place outside the DP. In particular, we will examine mixed Italian/English sentences containing an Italian compound ergative-type verb, where the past participle must agree in gender with the DP-syntactic subject. Specifically, we aim to test what gender the past participle preferably takes when the subject is an English monolingual DP or a mixed DP and, crucially, if the N-gender remains active and able to enter an agreement relation with the past participle. Data are obtained through an Acceptability Judgment Task administered to some adult Italian/English bilingual speakers. The results obtained and discussed will contribute to the debate on code-switching vs. borrowing, as well as on the architecture of the bilingual competence.

KEYWORDS: bilingual competence, code-switching, borrowing, grammatical gender, participial agreement.

1. Introduction

In this paper we are going to discuss the results of an ongoing project aimed at detecting the architecture of bilingual competence by studying long-distance gender agreement in code-switching (CS) contexts¹. Specifically, in

¹ This work is the result of the collaboration of the two authors in all respects. Nevertheless, Cristina Pierantozzi takes responsibility for sections 1, 4, 5 and 8, and Gloria Cocchi for sections 2, 3, 5, 6 and 9. Parts of this work have been presented at *Going Romance* 2018 (Utrecht,

Section 2 we will focus our attention on participial gender agreement in mixed Italian/English sentences containing an Italian compound ergative-type verb (i.e., unaccusative, passive or reflexive), where the past participle must agree in gender (and number) with the DP-syntactic subject. The subject may either be a monolingual English DP or a mixed DP.

After a review of the debate around gender agreement in a mixed DP (Section 3), we will discuss the various theories that offer different explanations to this phenomenon (e.g., Poplack *et al.* 1982, Grimstad 2018), and whether CS is to be seen as an independent phenomenon or an instance of temporary borrowing (Section 4). An answer may be found in the analysis of long-distance gender agreement, since the two main generative approaches to bilingual competence, the Lexicalist approach (MacSwan 1999) and the Exoskeletal approach (Lillo-Martin *et al.* 2016), make very different predictions.

In Section 5 we will present some data, obtained in previous work, relating to the acceptability of participial agreement in mixed Italian/German ergative-type clauses. Subsequently, in Section 6 we will outline and motivate our research questions, while Section 7 contains a description of the test design and the participants to our survey.

Finally, in Section 8 we will discuss our results. Section 9 summarizes the conclusions reached in the present work and mentions other related topics that will be developed in future research.

2. The data

This study focuses on mixed Italian/English clauses, where an Italian verb is inflected in a perfective compound tense, called *passato prossimo*, by and large corresponding to English present perfect. In particular, we will only discuss clauses which contain an ergative-type verb: in this case the perfective auxiliary is always *essere* ('be') and the past participle must obligatorily agree in gender and number with the DP-subject. This is clearly observed when such a DP is not masculine singular (since the latter coincides with default agreement), as in the monolingual Italian clause in (1):

- (1) La sedia è stata/*stato riparata/*riparato
“the chair(f) has been(f/*m) repaired(f/*m)”

December 2018) and *Eurosla* 29 (Lund, August 2019). We thank the audiences for their useful contribution. All responsibilities are of course our own.

In a CS context, if the subject of a clause like (1) is a monolingual English DP (2) or a mixed DP (3a-c), we may wonder which gender should preferably be assigned to the Italian past participle. In particular, we would like to test whether, in our bilingual participants' judgments, the past participle preferably agrees in gender with D or, rather, if the N-gender feature is still active and may control participial agreement, especially when the mixed DP-subject contains an Italian feminine noun, as in (3c):

- (2) The chair è stata/stato riparata/riparato
- (3) a. Il chair è stata/stato riparata/riparato
- b. La chair è stata/stato riparata/riparato
- c. The sedia è stata/stato riparata/riparato

We would also like to test whether, in mixed DPs with an English N like (3a-b), or even when the subject is a whole monolingual DP as in (2), the (feminine) gender of the equivalent noun – the so-called analogical gender – is active and may control participial agreement. In (2), in fact, the past participle might show a default agreement or agree with the whole Italian equivalent DP *la sedia*. In other words, we would like to test if nominal gender is “infinitely reusable as an ‘active goal’ by the operation Agree” (Carstens 2010, 31); this can be done by examining the acceptability of analogical gender in environments where long distance agreement (i.e., agreement outside DP) is required, as in the present case.

3. The derivation of a mixed DP

The question of analogical gender in mixed DPs has attracted a growing attention in recent years. Analogical gender, in fact, though widely attested in mixed productions, poses serious theoretical problems to the feature checking approach to CS advanced by MacSwan (1999) or Moro Quintanilla (2014), as evidenced by Radford *et al.* (2007), Licerias *et al.* (2008), Pierantozzi (2012, 2016) and related work.

According to the feature checking approach, in fact, the grammatical restrictions on CS are imposed by the same principles which apply in monolingual speech; the sole difference is that a bilingual speaker can select lexical items from two separate lexicons and spell them out according to the Phonetic Forms of either language. As in monolingual speech, it is the feature checking process that assures the grammaticality of the clause by means of the evaluation and deletion of uninterpretable features.

In a mixed DP, the feature checking approach predicts that the switched noun determines the gender of the determiner (Cantone 2007). Consequently, if one of the two languages in contact is a genderless language, and the other a gendered one, as in the Italian/English language pair analysed in this work, we can make different predictions which depend on the classification of the gender feature in N as interpretable or uninterpretable.

In particular, if one assumes that N carries an uninterpretable gender feature (as in Radford *et al.* 2007), the switching between D and N should not be available at all and the mixed DPs in (3) above should all be deemed ill-formed, due to a failure of the checking process. Indeed, the N-gender feature – being uninterpretable – should be valued and deleted: in (3c) the English D is unable to do it, as it is unspecified for gender, while in (3a-b) the genderless English N is unable to value and assign gender to the Italian D².

If one considers instead the gender feature in N as interpretable (as in MacSwan 1999, Moro Quintanilla 2014), only the D-N combinations *the sedia* and *il chair* would be available. Indeed, under this theory, *the sedia* is acceptable because the English D does not have any uninterpretable gender feature to be checked, while *il chair* is acceptable because it is the default gender of the English N that checks and values the gender feature of the Italian D (Chomsky 2001).

To conclude, the mixed DP *la chair*, where D displays analogical gender, is deemed problematic independently of the (un)interpretability of the gender feature in N. Notwithstanding, all of the mixed combinations in (3) above, including the latter, are widely attested in adult and children mixed productions, in monolingual as well as in bilingual communities: see Bellamy and Parafita Couto (2022) for a recent state of the art on this issue.

4. The question of borrowing vs. code-switching

The availability of a mixed DP like *la chair* in CS contexts, discussed above, fits into one of the most debated topics in literature, i.e., whether CS is an independent process with respect to borrowing. Indeed, following Poplack *et al.* (1982), analogical gender can be seen as the output of a gender assignment rule, i.e., a lexical process. Therefore, a mixed DP showing analogical gender, like *la chair*, is easily accounted for if we classify it as an instance of temporary borrowing.

² See Radford *et al.* (2007: 243, fn.3).

This is the solution also adopted by the Bi-lexical model of the Bilingual Competence proposed by MacSwan (1999), which translates into minimalist terms the basic principles of the Borrowing Hypothesis. Hence, under these approaches, a mixed DP like *la chair* reduces to temporary borrowing of lexical material and CS is not treated as an independent phenomenon. However, different proposals have been advanced. According to the Exoskeletal Approach³, one way to account for analogical gender is to call into question the architecture of the lexicon and assume, in line with Distributed Morphology, that the lexical items stored in the lexicon are deprived of phonological content, which is inserted into the terminal nodes only later, after syntax. So, if we assume a Late Insertion approach to CS, temporary borrowing is not a lexical process but a morpho-phonological process.

As in the Bi-Lexical Model of the Bilingual competence, in the Late Insertion approach all restrictions on the acceptable CS patterns are imposed by the same principles which operate in monolingual speech, specifically the feature checking process. Unlike the latter approach, however, there is nothing like a PF-constraint theorem which forbids switching below word level, which might be possible.

Moreover, further restrictions are dictated by the Subset Principle (Halle 1997: 428), which regulates the insertion of the phonological content (Vocabulary items) into the abstract structure assembled by syntactic operations:

- The phonological exponent of a Vocabulary item is inserted into a position if the item matches all or a subset of the features specified in that position;
- Insertion does not take place if the Vocabulary item contains features which are not present in the morpheme;
- When several Vocabulary items meet the conditions for insertion, the item matching the highest number of features specified in the terminal morpheme must be chosen.

Crucially, roots do not compete for insertion (Harley and Noyer 1999).

Under this approach, a bilingual speaker may thus select the abstract morphemes from one language and then lexicalize them with a Vocabulary item of the other language. As a consequence, both borrowing and CS qualify as the output of the same grammatical process: morpho-phonological mapping. However, this theory also raises a few non-trivial problems (Pierantozzi 2016).

³ See Pierantozzi (2012), Lillo-Martin *et al.* (2016), Grimstad *et al.* (2018), López (2018).

Indeed, it is not always possible to identify the language from which the items are selected before entering the derivation. Moreover, this model generates unwanted derivations: among all the possible agreement patterns that this approach accounts for, some are indeed attested and others are not.

5. Long distance gender agreement in Italian/German mixed clauses

In previous studies (Cocchi and Pierantozzi 2017), we investigated long distance gender agreement in Italian/German mixed sentences. Crucially German, unlike English, is a language where nouns are endowed with a gender feature, just like Italian; hence our analysis was specially (but not exclusively) focused on nouns which carry a different gender feature in the two languages. As in the present work, data were obtained via Acceptability Judgment tasks administered to bilingual speakers⁴. Crucially, our Italian/German participants' judgments showed an asymmetry in the acceptability of some mixed agreement patterns, as well as gender restrictions. In particular, German also has a neuter gender, unlike Italian; since neuter is regarded as the default gender, mixed agreement patterns involving the neuter gender may be more frequently accepted. In (4-6) we report examples of Italian/German mixed productions, featuring analogical gender, which have been accepted by (some of) our participants:

monolingual DPs:

- (4) Das Fahrrad è stata rubata in via Saffi
the(n)bike(n)has been(f) stolen(f) in Saffi Street
[Italian equivalent: bicicletta(f)]

mixed DPs:

- (5) das televisione è stata rotta dal fulmine
the(n) television(f) has been(f) broken(f) by the lightning
[German equivalent: Fernseher(n)]
- (6) il Fledermaus si è infilata sotto la trave
the(m) bat(f) refl. has crept(f) under the wooden beam
[Italian equivalent: pipistrello(m)]

⁴ Since Italian/German mixed clauses only serve as a touchstone and do not represent the focus of the present paper, we will not discuss here in detail the results of the mentioned AJT.

In (4) a monolingual neuter DP, whose Italian equivalent is feminine, checks analogical gender on the past participle. In (5-6) we have instead mixed DPs where D receives the analogical gender. In both cases the Italian feminine past participle agrees with the feminine N and not with the neuter or masculine D, thus showing that the N-gender feature is still active.

However, it is worth pointing out that Italian and German speakers are familiar with the morphological realization of gender features, unlike English speakers; therefore, for mixed Italian/English productions we expect that the participants' responses might be different, especially as concerns the level of acceptability of the analogical gender and the preference for default agreement.

6. Research questions

In order to decide whether CS may be considered as an independent phenomenon with respect to (temporary) borrowing, we intend to verify if the N-gender feature remains active, regardless of the D-gender feature. Indeed, if the switched noun were simply an instance of borrowing, its original gender should be completely de-activated; thus, sentences where the past participle agrees with such a noun, or with its equivalent in the other language, should be judged unacceptable. Hence, we will open the following three Research questions (RQs):

- ! RQ1: What gender does the Italian past participle take in a mixed ergative clause like (2) above, where the subject is an English genderless DP?

With a monolingual English DP as a goal, two possibilities are available: the past participle is either inflected in the default gender (masculine in Italian), consistently with the genderless DP-subject (selected gender, SG), as in (7a), or it is inflected in the analogical gender, i.e., the gender of the Italian equivalent noun (AG), as in (7b).

- (7) a. The chair è stato riparato SG
 "the chair has been(m) repaired(m)"
 b. The chair è stata riparata AG
 "the chair has been(f) repaired(f)"

Of course, when the Italian equivalent noun is masculine, SG and AG coincide, and a feminine past participle would represent a true mismatch.

- ! RQ2a: What gender does the past participle take in cases like (3a-b) above, where the subject is a mixed DP containing an English N?

However, there is an important issue related to this question:

- ! RQ2b: Within the mixed DP, which gender is assigned to the Italian D which accompanies the English genderless N? Is it either the (default) selected gender, or the analogical gender?

Indeed, in an ergative clause, whose DP-subject contains an English genderless N and an Italian gendered D, four mixed agreement patterns are possible, as in (8-9) below, which derive from the possibility for the past participle to use as a probe either D (8) or N (9):

- (8) a. Il chair è stato riparato SGD
 the(m) chair has been(m) repaired(m)
 b. La chair è stata riparata AGD
 the(f) chair has been(f) repaired(f)
- (9) a. La chair è stato riparato AGN
 the(f) chair has been(m) repaired(m)
 b. Il chair è stata riparata SGN
 the(m) chair has been(f) repaired(f)

The patterns in (8) arise if D is the probe of the operation Agree. In (8a), the goal is a mixed DP, where D is assigned the selected (default, masculine) gender (SG), and the past participle uses it as a probe; we label SGD this pattern, where all elements agree in gender. In (8b), instead, D receives the analogical (feminine) gender (AG) and, again, D is the probe for past participle agreement, which exhibits feminine inflection. In line with the previous combination, we label it AGD.

However, the past participle might use the selected English N, or its Italian equivalent N, as a probe. When the goal of Agree is a mixed DP with selected gender (SG), if the past participle probes the English N we derive SGD again, but if it agrees with the Italian feminine equivalent N, we derive (9b), which we label SGN; here we have a gender match between D and N, but a mismatch with the past participle. Finally, if the goal of Agree is a mixed DP with analogical gender (AG), and the past participle probes the English genderless N we obtain (9a), which we call AGN⁵. As in AGD, the goal is a mixed DP with

⁵ If it agrees instead with the Italian equivalent N, we derive AGD again.

analogical gender (AG), but the probe is the selected gender of N, not D, hence the participle exhibits default (masculine) agreement.

- ! RQ3: What gender does the past participle take in cases like (3c) above, where the subject is a mixed DP containing an Italian N?

In particular, the crucial matter is whether the gender of the Italian N in (3c) is still active and able to enter an agreement relation, as in (10b) or, rather, it is de-activated, as in (10a):

- (10) a. The sedia è stato riparato SGD=AGD=SGN
 “the chair(f) has been(m) repaired(m)”
 b. The sedia è stata riparata AGN
 “the chair(f) has been(f) repaired(f)”

In (10) the subject is a mixed DP having an English D and a gendered Italian N. In this case we have only two possibilities: a) the default agreement in (10a), where SGD, AGD and SGN coincide, as the past participle agrees either with the genderless D (SGD/AGD), or with the genderless equivalent of the Italian N (SGN), and b) the AGN pattern, where the past participle agrees with the Italian N – a fact which evidently emerges when the latter is feminine – as in (10b). Indeed, with a masculine Italian N, only the default/masculine agreement should be available; a feminine agreement would represent a true mismatch.

7. Test Design and Participants

In order to provide an answer to the research questions opened above, we have designed an Acceptability Judgment Task scored on 6 points of a Likert scale. We provided our participants with the following hints to score sentences:

- 1 fully acceptable and natural
- 2 acceptable but not so natural
- 3 more or less acceptable
- 4 awkward, but not totally unacceptable
- 5 unacceptable
- 6 strongly unacceptable, horrible

The AJT includes 55 sentences: 31 test sentences, 12 monolingual controllers (6 Italian and 6 English monolinguals sentences), and 12 fillers consisting of mixed sentences involving other unrelated switching points. The

31 test sentences contain Italian masculine and feminine nouns, as well as English nouns having both masculine and feminine Italian nouns as equivalents. Nouns never refer to human beings, so semantic gender does not interfere. For each of the mixed agreement patterns discussed above, we tested both singular and plural forms, since an Italian ergative past participle must agree with the sentence subject in both gender and number.

Our participants are eight highly fluent Italian/English speakers, who have acquired one of the two languages during adulthood. We also administered a sociolinguistic survey to get more information about the acquisition age of the two languages, the use they make of them and their attitude towards CS. They all claimed to use both languages in their daily life and to practise CS regularly, especially when they are tired.

8. Results

8.1. RQ1

In (11) below we report the average results (distinguishing Italian L2 and English L2 speakers' judgments) relating to test sentences whose subject is a monolingual English DP, both singular and plural:

(11) Monolingual English DPs: SG		Italian L2	English L2
a.	The milk <i>si è inacidito</i> the milk has soured(m.sg)	2,00	2,33
b.	The pigs <i>sono usciti dal recinto</i> the pigs have escaped(m.pl) from the fence	2,40	2,67
c.	The street <i>è stato chiuso</i> the street has been(m.sg) closed(m.sg)	3,40	4,33
d.	The whales <i>si sono spiaggiati</i> the whales have beached(m.pl)	4,00	3,67

In (11a-b) the equivalent Italian DPs are masculine (respectively *il latte* and *i maiali*), while in (11c-d) they are feminine (*la strada* and *le balene*). In all cases, the past participle is inflected in the masculine (default) gender, but it shows plural inflection when the subject is likewise plural⁶. Interestingly, though the whole

⁶ In the test we also included sentences with a plural (monolingual or mixed) subject and an unmarked past participle. All the participants rejected this pattern: the past participle may show default gender agreement, but default number agreement (singular) is judged unacceptable. This suggests that all speakers deem number a fundamental interpretable property of nouns, while the

DP-subject is genderless, the masculine option on past participle agreement is preferred when the English N has an Italian masculine N as an equivalent. In other words, if the Italian equivalent N is feminine, these sentences are judged awkward, or at best strongly degraded. In (12) below there are two test sentences whose subject is an English DP with an Italian feminine equivalent, *la volpe* and *le navi* respectively, and the past participle is inflected in the feminine:

(12) Monolingual English DPs: AG

	Italian L2	English L2
a. The fox è stata catturata The fox has been(f.sg) caught(f.sg)	3,40	2,67
b. The ships sono sparite dai radar The ships have disappeared (f.pl) from the radars	2,40	2,33

From the responses we infer that, with a feminine equivalent noun, analogical gender is preferred to default agreement (cf. 11c-d). Interestingly, AG is more easily accepted in the plural rather than in the singular form, by all participants, while, with singular subjects, this pattern is preferred by English L2 speakers. Figure 1 below summarizes the results relating to past participle agreement with monolingual DPs:

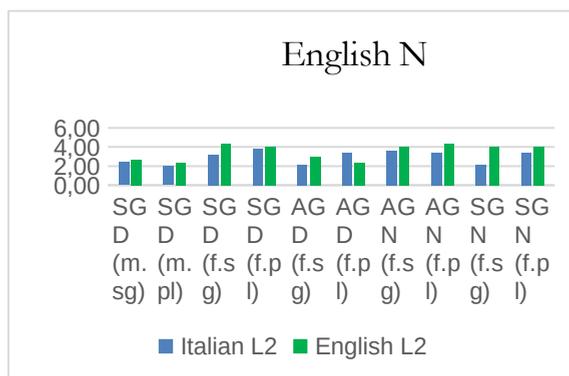


Figure 1

Figure 1 shows that both types of mixed agreement (SG and AG) are accepted by our participants. Clearly, judgments are strongly influenced by the gender of the equivalent Italian N: if it is masculine, SG is highly accepted,

competence on gender is influenced by the strength of this feature in their mother/dominant language.

while if it is feminine, the acceptance of the AG pattern (with feminine inflection on the past participle) increases, while SG (default agreement) is judged as degraded or ungrammatical. Moreover, the number feature interferes with the acceptance rate, even though, with a feminine Italian equivalent, the AG pattern is preferred to SG in both singular and plural, by all speakers. To sum up, if even an English monolingual DP, i.e. a completely genderless element, may probe the analogical gender on the past participle – hence outside the DP – we have good reasons to claim that analogical gender is not a purely lexical process, and the English DP-subject inserted in the Italian clause cannot simply be considered as an instance of temporary borrowing.

8.2. RQ2

RQ2 concerns ergative clauses having a mixed DP in subject position, composed of an Italian determiner and an English noun. In (13) below, D receives the selected gender of the genderless English N (default/masculine), and the past participle agrees with the masculine Italian D (SGD).

(13) Mixed DPs, English N: SGD

		Italian L2	English L2
a	Il train è arrivato in ritardo The (m.sg) train has arrived (m.sg) late	2,40	2,67
b	I dogs sono tornati nel canile The (m.pl) dogs have gone(m.pl) back to the kennel	2,00	2,33
c.	Il chair era già rotto The (m.sg) chair was already broken (m.sg)	3,20	4,33
d.	Gli apples sono stati raccolti per la torta The (m.pl) apples have been (m.pl) collected (m.pl) for the cake	3,80	4,00

In (13a-b) the Italian equivalent Ns are masculine (*treno* and *cani*), while in (13c-d) they are feminine (*sedia* and *mele*). This type of participial agreement is strongly preferred if the English N has a masculine Italian N as an equivalent, by all participants; in other words, the default gender agreement is more highly accepted when there is no interference of the feminine gender of the equivalent Italian noun. Expectedly, sentences in (13c-d) are judged degraded/awkward by all, but in particular by Italian mother tongue speakers. In (14) below, D receives instead analogical gender; both D and the past participle agree with the Italian feminine equivalents of the selected English nouns, *matita* and *api* (AGD):

(14) Mixed DPs, English N: AGD

		Italian L2	English L2
a	La pencil è stata temperata The (f.sg) pencil has been(f.sg) sharpened (f.sg)	2,20	3,00
b	Le bees si sono spostate su un altro albero The (f.pl) bees have moved (f.pl) to another tree	3,40	2,33

Interestingly, also in this case number feature has an impact on the acceptability of this pattern. However, the two groups have specular judgments on AGD: Italian L2 participants mostly accept this type of agreement in the singular form, while English L2 ones prefer it in the plural form. In (15) below we may observe the results concerning AGN mixed agreement type. Here D receives the analogical gender, assigned by the equivalent Italian feminine nouns (*porta* and *vespe*); however, the past participle does not agree with D, but rather with N. Given that English nouns are genderless, participles take the default value, masculine:

(15) Mixed DPs, English N: AGN

		Italian L2	English L2
a.	La door è stato chiuso bene the(f.sg) door has been(m.sg) closed(m.sg) well	3,60	4,00
b.	Le wasps sono arrivati con il caldo The (f.pl) wasps have arrived (m.pl) with the warm season	3,40	4,33

In general, this type of mixed agreement does not obtain good scores; anyway, it seems to be slightly preferred by participants having English as L1. This is not unexpected, as Italian mother tongue speakers react negatively against a masculine participle in agreement relation with a DP introduced by a feminine D. Finally, in (16) we find SGN mixed agreement type. Here D is masculine, coherently with the English genderless N (SG), but the past participle agrees with the Italian feminine equivalent of the English N (respectively *scimmia* and *tartarughe*).

(16) Mixed DPs, English N: SGN

		Italian L2	English L2
a.	Il monkey si è arrampicata sull'albero The (m.sg) monkey has climbed(f.sg) up the tree	2,20	4,00
b.	I turtles sono entrate nel cortile The (m.pl) turtles have entered (f.pl) the courtyard	3,40	4,00

Here we can observe distinctly different judgments: Italian mother tongue speakers strongly reject this combination, while English L1 speakers accept it with singular nouns. Figure 2 summarizes the judgments obtained, relating to past participle agreement with mixed DP-subjects containing an English N:

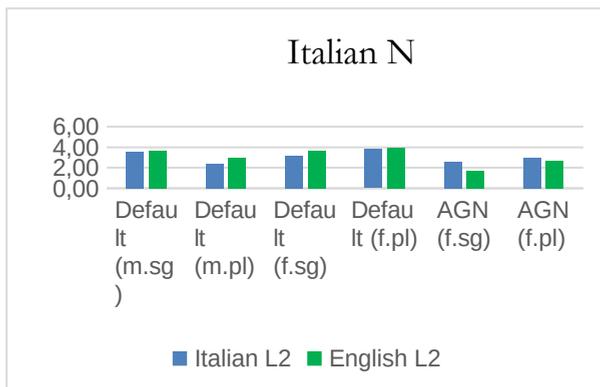


Figure 2

To sum up, the SGD pattern is overall the preferred mixed agreement pattern by speakers of both groups, particularly when the English N has a masculine Italian equivalent, so that all elements agree in gender. This does not come as an unexpected result.

For AGD we observe the most different judgments: English L2 speakers are overall more disposed to accept this combination; however, we must also underline the interference of number feature on judgments, a fact that certainly deserves more attention in future work. Furthermore, Italian L2 speakers are much more inclined to accept the other two possible mixed agreement patterns, AGN and SGN, with respect to Italian mother tongue speakers, due to the latter's stronger familiarity with gender inflection.

8.3. RQ3

RQ3 relates to mixed DP-subjects with an Italian N and an English D.

In (17) below the past participle takes the default value, masculine, in agreement with both the English genderless D and the Italian masculine N:

(17) Mixed DPs, Italian N: SGD (AGD, AGN, SGN)

	Italian L2	English L2
a. The martello mi è scivolato	3,60	3,67

- The hammer (m.sg) has slipped (m.sg)
 b. The alberi sono stati abbattuti 2,40 3,00
 The trees (m.pl) have been(m.pl) cut (m.pl) down

According to the Matrix language Frame Model (Myers-Scotton 1993 and subsequent work), the insertion of an English D in an otherwise monolingual Italian sentence represents a strong violation, as all functional heads should belong to the same language.

This fact may explain the relatively low level of acceptance of these sentences, though there is no clash in agreement features (all elements are masculine/default). Indeed, with respect to the same agreement pattern (SGD) involving mixed DPs with an English N and an Italian masculine D, the acceptance rate definitely decreases (cf. (13) above)⁷. As observed above, this difference may be explained by the fact that, in (17), we have the insertion of a functional category instead of a lexical one, hence we have a violation of the general tendency to build a uniform structure in CS (*ibid.*). Again, we observe the impact of the number feature, since plural number inflection increases the acceptance rate, especially for Italian L2 speakers.

In (18) below there is the same mixed agreement pattern, SGD, but with an Italian feminine N:

(18) Mixed DPs, Italian N: SGD (AGD, SGN)

	Italian L2	English L2
a. The spada è rimasto nella roccia The sword(f.sg) has remained(m.sg) in the rock	3,20	3,67
b. The uova si sono rotte sulle scale The eggs(f.pl) have broken(m.pl) on the stairs	3,80	4,00

These two test sentences are scored as awkward, worse than those in (17), though they have been judged a little bit more acceptable in the singular form, which features default agreement; indeed in (18b) the participle is inflected for number but not for gender, thus showing an only ‘partial’ agreement with the DP-subject. English L2 speakers, again, score these sentences slightly worse than Italian L2 ones.

In (19) below we observe instead the AGN agreement pattern with a feminine Italian N: the past participle agrees with it, rather than with the genderless D:

⁷ Cocchi and Pierantozzi (2019) show that this pattern is much more easily accepted (by all speakers) when sentences like (17) are embedded under an English matrix clause. Indeed, in that case, the article would not be the sole English element inserted in a monolingual Italian sentence.

(19) Mixed DPs, Italian N: AGN		Italian L2	English L2
a.	The luce si è spenta all'improvviso the light (f.sg) has gone(f.sg) off suddenly	2,60	1,67
b.	The pecore sono morte the sheep (f.pl) have died (f.pl)	3,00	2,67

These sentences are judged reasonably acceptable, especially by English L2 speakers. Again, these sentences show us that the gender of the selected N is not de-activated but may still value a probe outside the DP domain.

If we compare the sentences in (19) with those in (15) above, featuring AGN with an Italian D and an English N, judgments are indeed very different. Given that the English N is genderless, if the past participle took N as a probe for the operation Agree (as it is in AGN), it should show up with masculine (default) inflection, as in (15). However, this pattern is definitely judged as degraded, since the participle shows a gender mismatch with D. In fact, when the English N has an equivalent feminine Italian N, sentences are judged much more acceptable if the past participle is also inflected in the feminine (as in AGD; cf. (14)).

The AGN acceptance rate, however, changes dramatically when we have a mixed DP-subject containing an English D and a feminine Italian N (as in (19)). In this case, the feminine participial agreement is preferred; this means that the past participle probes the Italian N rather than the English genderless D. Crucially, in most of the previous cases, the past participle preferably seemed to probe D, rather than N⁸; hence we would expect the N-gender to be de-activated and unable to value the past participle, contrary to the facts witnessed in (19). Overall, if we compare the median of the rates provided for AGN, we may conclude that the AGN pattern is judged much more acceptable with an Italian N than with an English N, as shown in Figure 3:

⁸ See again the negative judgments given to (15).

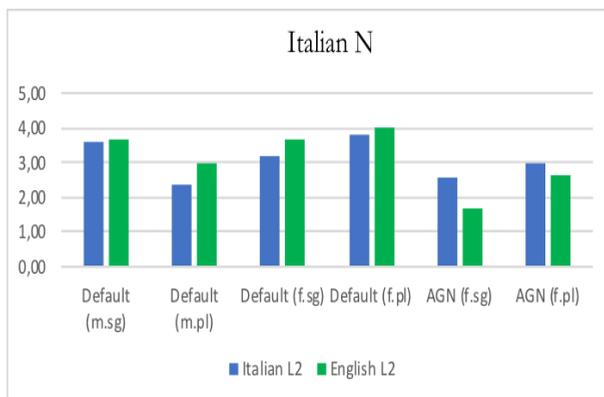


Figure 3

9. Conclusion

We are finally able to give an answer to our Research Questions. RQ1 asked what gender an Italian ergative past participle should take in a mixed clause with a monolingual English (genderless) DP-subject: either the default selected gender, or the analogical gender of the equivalent Italian DP.

The responses of our participants show that both agreement types are acceptable, since the past participle may be inflected in the default/masculine, but also in the feminine, if the equivalent Italian N is likewise feminine; the latter option is preferred by English L2 speakers, but also Italian L2 speakers show relatively high degrees of acceptability of this pattern. Therefore, monolingual DPs may display long-distance analogical gender. Given that gender assignment rules operate only on the noun in the Lexicon, and not on the DP in syntax, we may conclude that analogical gender is better analysed as a morpho-phonological process.

RQ2 asked what gender the past participle should take when the subject is a mixed DP composed of a genderless English N and a gendered Italian D. Crucially, the Italian D may receive either the analogical gender (i.e., the gender of the equivalent Italian N) or the selected, default gender (masculine). Both options are available and widely attested in the literature.

When such a mixed DP enters an Agree operation with an Italian ergative past participle, four possible agreement patterns are available; according to our participants, the preferred options are those where the past participle agrees with the gender of the Italian D. Thus, when the Italian D receives selected

gender (and shows up in the masculine form), the past participle will likewise be masculine (SGD); when D receives instead analogical gender (which is evident if the Italian equivalent N is feminine), the participle is better inflected in the feminine (AGD). Indeed, the other two possible agreement patterns, i.e. past participle agreement with N (AGN), or with the equivalent Italian N in disagreement with D⁹ (SGN), are judged awkward to unacceptable by all participants.

RQ3 asked instead what gender the past participle should take when the subject is a mixed DP composed of an Italian N and an English D. We intended to test whether the gender of the Italian N would still be active and able to enter a long-distance agreement relation, or if it would rather be deactivated.

Crucially, all the participants' responses show that, in this case, the AGN type is highly accepted; indeed, when the DP-subject contains a feminine Italian N, the participle is preferably inflected in the feminine, rather than exhibit default agreement.

Therefore, the AGN data in (19) above confirm that, in CS contexts, the N-gender may still be active and “infinitely reusable as an active goal” (Carstens 2010, 31) by the operation Agree outside DP. The availability of long-distance agreement confirms that the switched elements cannot be considered as mere instances of temporary borrowing, as assumed by the Borrowing Hypothesis; conversely, the acceptability of AGN is predicted by the Exoskeletal approach. To conclude, if we compare Italian/English and Italian/German data, many correlations emerge, but some interesting differences as well.

As regards a monolingual English or German DP-subject inserted in an Italian ergative clause, our data show that, in both cases, the AG agreement pattern is easily accepted. Indeed, an Italian ergative past participle may be inflected in the feminine when the sentence subject is either an English genderless DP, as in (12), or a German masculine or neuter DP, as in (4) above, provided such DPs have an Italian feminine equivalent.

As regards instead mixed DPs, the SGD mixed agreement pattern is always the preferred one, as expected, since the three elements (D, N and past participle) all agree in gender. However, we may notice some interesting differences in the two language pairs, especially concerning the AGN agreement pattern.

⁹ In SGN, D receives the selected gender, so N and D agree.

As discussed above, in Italian/English mixed clauses, AGN is highly accepted only when the past participle agrees with an Italian N; if the mixed DP-subject contains an English N, this pattern tends to be rejected, not only by Italian L2 speakers but also by English L2 ones. In Italian/German mixed ergative clauses, the Italian past participle preferably agrees with the Italian N as well (5a); however, we have detected some cases where participial agreement with a German N (in disagreement with the Italian D) has been accepted, though limitedly to German L2 speakers (6a)¹⁰.

Finally, the existence of the neuter gender in German may favour the acceptance of certain mixed agreement patterns, as evidenced in some of the examples above where, not accidentally, neuter gender is involved.

Generally speaking, in the Italian/English pair the underspecification criterion increases the acceptability of mixed agreement patterns. Specifically, the default gender is strongly preferred by English L1 speakers. Indeed, unlike Italian L1 speakers, they are less familiar with past participle inflection and thus they tend to prefer the default gender in long distance agreement.

In conclusion, our test confirms that we have good reasons to think that borrowing and CS are different outputs of morpho-phonological processes, as claimed by the Late Insertion Approach to CS.

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¹⁰ Remember that, in AGN, D has received analogical gender, hence D and N do not agree.

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