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Loporcaro, Michele

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Michele Loporcaro

The impact of morphology on change in agreement systems¹

Abstract: Agreement is a syntactic mechanism involving morpho-syntactic categories such as person, number, gender. Since morphology provides the formal means for this syntactic mechanism to result in surface contrasts, the impact of morphology on agreement is usually limited to the (trivial) fact that the signalling of agreement stays and falls with (the contrast between cells of) the morphological paradigms whose cells are defined through distinct morpho-syntactic feature values.

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*In ammentu de Pedru Depperu, su conoschidore
prus mannu dessu lurisincu*

1 Introduction

In this paper I shall discuss evidence showing that purely morphological properties, such as the fact of belonging to a given inflectional class, may occasionally have an impact on agreement, determining language change. Since agreement is a morpho-syntactic phenomenon driven by syntactic conditions, this

¹ This paper is dedicated to the memory of Piero Depperu, the best connoisseur of Lurisincu. It is part of preliminary work on a research project [Swiss National Fund 100012-156530, 2015–18] aiming at creating a database on agreement phenomena in some selected Italo-Romance dialects. Parts of this research were presented at the Universities of Oxford (November 2012), Manchester (June 2013), at the Scuola Normale Superiore di Pisa (June 2013) and at the FU Berlin (January 2014), as well as at the Marburg workshop (October 2012). I am indebted to the audiences there, and in particular to Balthasar Bickel, Greville Corbett, Hans-Olav Enger, Jürg Fleischer, Martin Maiden, John Charles Smith and Lameen Souag, as well as to one anonymous reviewer, for comments and discussion. I am also grateful to Rachele Delucchi for help with a previous draft. Usual disclaimers apply. The following abbreviations are used: DO = direct object, F = feminine, IC = inflectional class, It. = Italian, Lat. = Latin, M = masculine, (P)IE = (Proto-)Indo-European,

is unexpected, and the examples at issue, which are drawn from non-standard Italo-Romance dialects, deserve closer inspection so as to ascertain what their implications are for general linguistic theory and to what extent cross-linguistic parallels to them, if any, may be spotted. In general, my discussion confirms what Corbett (1998: 203) observed on the relation of morphology to agreement: “It used to be considered that agreement was primarily a matter of syntax. [...] It now seems that morphology too has a more substantial role in the working of agreement than has generally been assigned to it.” This turns out to be even more true than morphologists would be generally prepared to admit, as we shall see by discussing Italo-Romance exceptions to Zwicky’s morphology-free syntax principle in the final section.

The structure of the paper proceeds gradually from the less to the more spectacular cases. I shall start in §2 by pleading for the relevance of detailed knowledge of diachronic and dialect variation in agreement mechanisms as a testing ground for a general synchronic theory of agreement; this will be done by discussing subject agreement on finite periphrastic verb forms and showing that some dialects of central-south-eastern Italy happen to display double subject agreement on both the auxiliary and the lexical verb, such as typologists are used to in, say, Niger-Congo but not in Indo-European languages. In §§3–5, I shall then move on to review a few more *rara* and *rarissima*, across Romance at least, though I suspect that at least some of them may be news even for specialists of other language families. The phenomena dealt with in those sections are tied together by a shared circumstance: in all of them, the syntax of agreement has changed, due to purely morphological factors. In §3 I shall discuss some cases of change in the gender system with the rise of a new grammatical gender which, arguably, was triggered by properties of the noun inflectional class system. Similarly, in the case study examined in §4, the noun inflectional class system prompted a change in gender agreement marking which, however, affected personal pronouns. Finally, in §5 I shall inspect a change in object agreement to which different classes of participles reacted differently, in apparent violation of the morphology-free syntax principle.

PL = plural, SG = singular. Italo-Romance dialect data, which stem from my own fieldnotes whenever unreferenced, are given in a simplified IPA notation: with stress marked (as \acute{V}) only on non-paroxytonic words, geminates noted CC instead of C: and palatal consonants transcribed [š ž č ĝ] instead of [ʃ ʒ tʃ dʒ]. Latin etyma are given in small caps. The map in fig. 1 in the appendix provides information on the geographic location of the varieties touched upon in what follows.

2 Variation in time and space as a testing ground for synchronic theories of agreement

Evans (1999) starts his paper on agreement by taking issue with one claim laid in Baker's (1995) polysynthesis monograph. On the model of Evans' incipit, I shall start by discussing one of the two grammatical parameters which according to Baker (2008: 155) constrain syntactic configurations in which agreement occurs:

- (1) Baker (2008: 155): “*The Case-Dependency of Agreement Parameter*
F agrees with DP/NP only if F values the case feature of DP/NP or vice versa”

From this parameter, “a version of Chomsky's [2001] activity condition” (Baker 2008: 155), Baker (2008: 208) derives the contrast between Niger-Congo languages, exemplified with Swahili in (2a), and Indo-European languages, exemplified with Spanish in (2b):

- (2) a. (*mimi*) *ni-li-kuwa* *ni-ngali* *ni-ki-fanya* *kazi*
1SG 1SG-PAST-be 1SG-still 1SG-PERF-do work(9)
‘I was still working’ Swahili
- b. *l-as* *muchach-as* *ha-n* *leid-o* / **leid-as*
DEF-F.PL girl(F)-PL have.PRS-3PL read:PTP-M.SG/-F.PL
el *libr-o*
DEF-M.SG book(M)-SG
‘the girls have read the book’ Spanish

Both examples contain complex verb forms, including an auxiliary, but while in Niger-Congo languages both the auxiliary and the lexical predicate agree with the subject (as shown by the underlined prefixes in (2a)), in Indo-European languages this is normally not the case, as shown in (2b) by non-agreeing *leid-o* (not **leid-as*).² The explanation of the contrast appeals to the parameter in (1): “The question then is why are two full agreements with the same NP argument tolerated in NC [i.e. Niger-Congo, M.L.] but not in IE languages. My answer centers on the fact that IE languages are subject to (2) [= (1) here, M.L.], whereas Bantu languages are not” (Baker 2008: 208). Baker is aware, as he adds in a footnote, that Romance languages also display past participle agreement in verbal peri-

² The claim that, in this respect, Spanish represents the whole of IE, is Baker's assumption, which the following discussion calls into question.

phrastics formed with an auxiliary and a participle (not a seldom situation across Indo-European), but considers this as orthogonal to the issue, since this is agreement with the direct object, and hence deemed irrelevant.³

Unfortunately, while it is true that Romance participles usually agree, if at all, with their direct objects – provided the category is redefined under Perlmutter’s (1978) Unaccusative Hypothesis – there are also a few well-documented cases of Romance perfective verbal periphrastics in which both the auxiliary and the participle agree with their subjects. This is the case in an area of central-southern Italo-Romance including eastern Abruzzi and some dialects of the Marche, as exemplified in (3)-(4):⁴ (See map in fig. 1.)

- (3) a. *essə a fattə na tortə* dialect
 3F.SG have.PRS-3 make:PTP\F.SG INDEF.F.SG cake(F) of Arielli
 ‘she has baked a cake’ (province of Chieti, Abruzzo)
- b. *jissə a fittə na tortə*
 3M.PL have.PRS-3 make:PTP\M.PL INDEF.F.SG cake(F)
 ‘they have baked a cake’ (D’Alessandro and Roberts 2010: 43)
- (4) a. *noja s-em-i dat-i* dialect of Ripatransone
 1PL be.PRS-1PL-M give:PTP-M.PL
 (province of Ascoli Piceno, Marche)
 ‘we(M) have given’ (Harder 1988: 230)

³ Baker (2008: 208 fn. 36): “Past participles in IE languages sometimes agree with moved direct objects in number and gender [...]. I have nothing to say about this complex topic here. The question at hand is whether a language allows two verbs in the clause to agree with the same noun phrase, and the possibility of object agreement on participles is not directly relevant to this”.

⁴ While the participial form *fittə* in (3b) is only masculine plural, as indicated in the grammatical gloss, the gloss of the participle *fattə* in (3a) is based on syntactic information rather than being strictly morphological (cf. e.g. Baerman, Brown, and Corbett 2005: 11–12 for the distinction). In isolation, this form may be either feminine (singular and plural) or masculine singular, given that this dialect has neutralized all final unstressed vowels so that final *-ə* does not mark agreement anymore. Yet, sound change did not go so far as to cause the form *fattə* to become fully uninflected, since application of metaphony in the masculine plural form, originally ending in *-i* (*fittə* < Lat. FACTI), prior to final vowel merger, has rescued the exponence of gender/number on this marked form, which contrasts with the other one (*fattə*) occurring in the remaining paradigm cells.

- b. *noja s-em-a dat-a*
 1PL be.PRS-1PL-F give:PTP-F.PL
 ‘we(F) have given’

Note that in (4a–b) the auxiliary agrees not only for person and number but also for gender, with its subject, whereas the past participle agrees in gender and number. Admittedly, examples such as those in (3)–(4) are reviewed in Loporcario (1998: 179–182) within a list of rather marginal and rare cases, which make up, as it were, the “teratology” of Romance participle agreement, whereas its physiology is clearly object agreement. This is due to sheer inheritance from Latin though, rather than to some very general synchronic property like the parameter-setting proposed by Baker for the whole of the IE family. In fact, in the diachronic source of perfective periphrastics – the possessive-resultative construction exemplified in (5a) with a Classical Latin example from Cicero’s speech *Pro lege Manilia* (66 BC) – the participle had to agree with its argument. Thus, once this periphrasis was reanalyzed as a compound perfect, this new periphrastic tense was extended to verbs lacking a DO (as the Medieval Latin example – late 8th/early 9th century AD – in [5b] shows, which contains the unergative predicate *parabolare* ‘to speak’):

- (5) a. *in ea provinci-a pecuni-as*
 in DEM.F.SG.ABL province(F)-SG.ABL capital(F)-PL.ACC
magn-as colloca-t-as habent (Cic., *Leg. Manil.* 18)
 big-F.PL.ACC invest-PFV.PART-F.PL.ACC have.PRS-3PL
 ‘they have big capitals invested/have invested big capitals in that province’
- b. *sicut parabolatum habuistis*
 so as speak-PFV.PART-N.SG.ACC have.PRT-2PL
 ‘so as you had spoken’ (*Formulae Salicae Merkelianae* 260,7)

Indeed, in most of Romance the participle occurring in those constructions, with transitive and unergative predicates, does not agree at all. But, evidently, in the dialects of Abruzzi and Marche exemplified in (3)–(4), a change has occurred, so that participles now do agree with their subjects, as does the auxiliary at the same time. Thus, such changes in IE do occur, and Baker’s account of the contrast

between Niger-Congo and IE in terms of the parameter in (1) is in need of revision, since this parameter is unapt to constrain possible syntactic change within IE.⁵

In order to understand this, however, Baker's database is insufficient and finer-grained dialect variation within IE must be taken into account. Failing this, Baker (2008) is a classical example of the standards of the discussion on *phi*-features, which not seldom proposes hasty generalizations because, as Corbett (2006: 125–6) puts it, “claims about those features in the literature are often based on French-type systems”, so that they do not hold in other, more complex systems.

3 Noun inflectional class triggers change in (nominal) gender system

In this section, I shall consider the interaction of gender and inflectional class assuming the standard definitions in (6a-b):

- (6) a. “Genders are classes of nouns reflected in the behavior of associated words.” (Hockett 1958: 231, cit. in Corbett 1991: 1).
- b. “An *inflectional class* is a set of lexemes whose members each select the same set of inflectional realizations.” (Aronoff 1994: 64).

The two notions ‘gender’ and ‘inflectional class’ can (and must) be distinguished in principle, since inflectional classes (henceforth ICs) are classes of nouns which are defined in purely paradigmatic terms (7a), while to the diagnosis of genders, which also are a kind of paradigmatic class, the syntagmatic dimension is crucial, since gender contrasts are ascertained on the basis of agreement.

Now, consider the sets of data in (7)–(8), where Standard Italian is compared with a dialect from Northern Calabria, that of San Giovanni in Fiore (in the province of Cosenza):⁶

⁵ As for the Niger-Congo agreement facts, these are claimed to be predicted by the other parameter put forward in that context, viz. the ‘Direction of Agreement Parameter’ (Baker 2008: 155). However, Jerro and Wechsler’s (2013) discussion of Bantu DP-internal person agreement shows that also this parameter is flawed.

⁶ In (7) and in the following schemes, solid lines divide paradigm cells occupied by contrasting forms.

(7) Standard Italian

	SG			PL			Latin decl.	gloss
a.	<i>l-a</i>	<i>cas-a</i>	<i>nuov-a</i>	<i>l-e</i>	<i>cas-e</i>	<i>nuov-e</i>	1 st class	‘the new house(F)’
	<i>l-a</i>	<i>chiav-e</i>	<i>cort-a</i>	<i>l-e</i>	<i>chiav-i</i>	<i>cort-e</i>	3 rd class	‘the short key(F)’
b.	<i>il</i>	<i>pied-e</i>	<i>cort-o</i>	<i>i</i>	<i>pied-i</i>	<i>cort-i</i>		‘the short foot(M)’
	<i>il</i>	<i>figli-o</i>	<i>buon-o</i>	<i>i</i>	<i>figl-i</i>	<i>buon-i</i>	2 nd class	‘the good son(M)’

The Italian data aptly illustrate the gender vs. IC distinction, which provides for mismatches, as shown by the fact that the binary contrast in gender agreement (seen in (7a) vs. (7b)) cuts across the three inflectional classes *casa/case*, *chiave/chievi*, and *figlio/figli*.

Compare now the northern Calabrian data in (8). Here, there are not only feminine (8c) and masculine nouns (8a), but there is also a third class of nouns in between, exemplified by *chiave* in (8b), which select feminine agreement in the singular and masculine agreement in the plural:⁷

(8) dialect of San Giovanni in Fiore (province of Cosenza, Calabria; B. Mele p.c.)

	SG			PL			Latin decl.	gloss
a.	<i>a</i>	<i>cas-a</i>	<i>nòv-a</i>	<i>e</i>	<i>cas-e</i>	<i>nòv-e</i>	1 st class	‘the new house(F)’
	<i>a</i>	<i>vèst-a</i>	<i>nòv-a</i>	<i>e</i>	<i>vèst-e</i>	<i>nòv-e</i>	3 rd class	‘the new dress(F)’
	<i>a</i>	<i>turr-e</i>	<i>aut-a</i>	<i>e</i>	<i>turr-i</i>	<i>aut-e</i>		‘the high tower(F)’
b.	<i>a</i>	<i>chiav-e</i>	<i>curt-a</i>	<i>i</i>	<i>chiav-i</i>	<i>curt-i</i>		‘the short key(F)’
c.	<i>u</i>	<i>pèr-e</i>	<i>curt-u</i>	<i>i</i>	<i>píer-i</i>	<i>curt-i</i>		‘the short foot(M)’
	<i>u</i>	<i>figli-u</i>	<i>búon-u</i>	<i>i</i>	<i>figl-i</i>	<i>búon-i</i>	2 nd class	‘the good son(M)’

⁷ In (8) and in the following schemes, gender agreement is exemplified with first class adjectives and definite articles. The Calabrian data in (8)–(10) are given in Italian orthography, because they come either from sources adopting this convention (for Bocchigliero) or from answers to a written questionnaire (San Giovanni in Fiore). Thanks are due to Biagio Mele for the latter.

Such nouns are not just two or three, unlike in French (9a), but several, as shown in (9b):

- (9) a. French (Corbett 1991: 172): *amour* ‘love’, *délice* ‘delight’, *orgue* ‘organ’
MSG/FPL
- b. Sangiovese: SG (F) PL (M)
- | | | |
|-------------------|-------------------|---------------|
| <i>a carne</i> | <i>i carni</i> | ‘meat, flesh’ |
| <i>a fúorfice</i> | <i>i fúorfici</i> | ‘scissors’ |
| <i>a muglière</i> | <i>i muglieri</i> | ‘wife’ |
| <i>a nòtte</i> | <i>i nòtti</i> | ‘night’ |
| <i>a nuce</i> | <i>i nuci</i> | ‘nut’ |
| <i>a vuce</i> | <i>i vuci</i> | ‘voice’ etc. |

Historically, those nouns come from the Latin third declension, just like standard Italian *chiave/-i* and *cane/-i* in (8). Contrary to Italian, however, this class has split into three distinct ICs in this dialect, as seen in (9). On the one hand, there are *turre/-i* (feminine) and *père/pieri* (masculine), which preserved both the original form and the original gender. In addition, on the other hand, there are feminines which were attracted into the 1st IC: Lat. VESTEM became *vesta/-e*, now inflecting like *casa/-e*, and finally there are the originally feminine 3rd class nouns like *chiave/-i*, in between, which display alternating gender agreement. The list of those nouns includes the one for ‘wife’, which justifies the humorous title “The masculine wives of southern Italy”, under which in a recent paper Cappellaro, Maiden, and Smith (2012) deal with the similar system of another northern Calabrian dialect, that of Bocchigliero, spoken in the same province, some 20 kilometers north-north-east of San Giovanni in Fiore. (10a) provides a list of some such Bocchigliere nouns with alternating gender (Cappellaro 2012 lists many more), while in (10b) I report nouns illustrating the other, complementary alternating gender also occurring in that system (on which see directly):

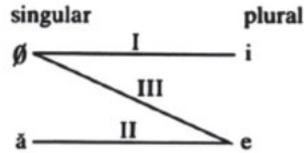
- (10) Dialect of Bocchigliero (Cappellaro 2012: 4; Cappellaro, Maiden, and Smith 2012):
- | SG (F) | PL (M) | | SG (M) | PL (F) | |
|-------------------|-----------------|---------------|-------------------------|---------------------|--------|
| a. <i>a vutta</i> | <i>i vutti</i> | ‘barrel’ | b. <i>u gangariellu</i> | <i>e gangarèlle</i> | ‘chin’ |
| <i>a sèrpa</i> | <i>i sierpi</i> | ‘snake’ | <i>u peccatu</i> | <i>e peccate</i> | ‘sin’ |
| <i>a rutta</i> | <i>i rutti</i> | ‘cave’ | <i>l úovu</i> | <i>l òve</i> | ‘egg’ |
| <i>l arma</i> | <i>i armi</i> | ‘weapon’ etc. | <i>u vette</i> | <i>e viètture</i> | ‘pole’ |

The rise of the northern Calabrian alternating gender agreement exemplified in (9b) and (10a) has been explained as follows by Merlo (1917: 89):

Codesto *li* che accompagna i soli sostantivi femminili di terza, non può non essere da livellamento analogico sulla desinenza in *-īs (-ĒS)* dei sostantivi stessi [this *li* that accompanies only 3rd class feminine nouns, cannot but stem from analogical levelling onto the *-īs (-ĒS)* ending of the nouns themselves].

In those varieties, thus, inflectional class (a purely morphological category) had an impact on the gender system, and drove the change from previous *le croci* (feminine) to *li croci*.⁸ The result of this change, if one accepts the target vs. controller gender distinction (11), is that a new controller gender has arisen in these Calabrian dialects, which is symmetrical to the Romanian neuter, with which Corbett exemplifies the notion “controller gender”:⁹

- (11) Corbett (1991: 151):
 “We should therefore differentiate *controller genders*, the genders into which nouns are divided, from *target genders*, the genders which are marked on adjectives, verbs and so on.”



The gender system of Romanian

The Romanian neuter, gender III in the scheme on the right-hand side in (11), is a successor of the Latin neuter which, unlike its predecessor, has become a “non-autonomous gender value” (as termed by Corbett 2011: 459–460, following Zaliznjak 1973), in that neuter nouns now trigger masculine agreement in the singular and feminine agreement in the plural. Note that an alternating (or non-autonomous) neuter of the Romanian kind exists in several dialects of central-southern Italy (cf. Loporcaro and Paciaroni 2011), included these northern Calabrian varieties, as seen for Bocchigliere in (10b), where one finds a few examples of nouns from several ICs which trigger this kind of alternating agreement. Thus, we have gender III, as exemplified by *u gangarĭellu/e gangarĕlle* ‘chin’ in (11b), and, in addition, gender IV, as exemplified by *a vutta/i vutti* ‘barrel’ in (10a). Of course, these labels are a bit dull: rephrasing Cappellaro, Maiden, and Smith’s

⁸ As Cappellaro (2012: 6) puts it, Bocchigliere shows “a strong tendency towards alignment of ending and gender”.

⁹ Gender agreement is illustrated with the endings of first class adjectives, like e.g. *frumos/frumoși/frumoasă/frumoase* ‘beautiful:MSG/MPL/FSG/FPL’.

(2012) fancy title as “The gender IV wives of southern Italy” admittedly would be less of an eyecatcher. Behind the terminology, though, there is a genuine analytical issue here, which will have to be left to discuss on another occasion.

The gender system of the northern Calabrian dialects at issue can be represented schematically as shown in (12), a scheme which is identical to the one recently proposed for Old Romanesco in Formentin & Loporcaro (2012):

- (12) Dialects of San Giovanni in Fiore and Bocchigliero = Old Romanesco/Old Salentino

M.	-o (lo)	I III IV II	-i (li)
N.			
F.	-a (la)		-e (le)

The agreement morphs exemplifying gender agreement in (12) are the first-class adjective endings and definite article forms from Old Romanesco, as illustrated in (13), which gives some examples for the genders III and IV in this medieval Italo-Romance variety:¹⁰

- (13) a. gender III
- | | | |
|---------------------|--------------------|--------------|
| SG | PL | gloss |
| <i>lo castiello</i> | <i>le castella</i> | ‘the castle’ |
| <i>lo tiempo</i> | <i>le tempora</i> | ‘the time’ |
| <i>lo nome</i> | <i>le nomora</i> | ‘the name’ |
- b. gender IV
- | | | |
|------------------|-----------------|-------------|
| SG | PL | gloss |
| <i>l(a) oste</i> | <i>li uosti</i> | ‘the army’ |
| <i>l(a) arte</i> | <i>li arti</i> | ‘the art’ |
| <i>la torre</i> | <i>li torri</i> | ‘the tower’ |

Cross-linguistically, it is common for gender to determine (change in) IC, as pointed out by Enger (2004: 60), while the reverse seems to happen less frequently. Nevertheless, in his study, sifting the diachronic evidence provided by change from Old Norse to Nynorsk, Enger (2004: 58) does come up with some examples of the less common development (which he labels ‘DeclensionFirst’):

There can be no doubt that in cases like *bær* and *páskar*, the gender of the noun is changed because of its plural declension. In short, DeclensionFirst does hold for some nouns in Norwegian.

10 For gender IV, in Formentin & Loporcaro (2012) some 50 lexemes were identified which select this agreement pattern. While the existence of a four-gender system for Old Romanesco is a recent discovery, Merlo (1917: 89) already pointed to the fact that another medieval Italo-Romance variety, viz. Old Salentino, displayed the same agreement pattern, and hence the same gender system. More recently, this is studied in detail by Maggiore (2013).

Thus, the noun *páskar* ‘Easter’, a FPL tantum in Old Norse, became masculine in late Old Norse because it belongs to the IC to which masculines are normally assigned (cf. e.g. *bil/bilar* ‘car(m)/cars’, as opposed to *sag/sager* ‘saw(F)/saws’); and *bær* ‘berry’, a neuter in Old Norse, changed to feminine gender in some Norwegian dialects as “the definite plural *bæra* could be interpreted as the definite singular of a feminine noun *bær*” (Enger 2004: 58). Crucially, however, the cases spotted by Enger are all instances in which inflection has determined change in the gender value of some specific lexemes, *without affecting the gender system itself*. On the contrary, in the case of our northern Calabrian dialects, Old Romanesco and Old Salentino, the change driven by the *-i* inflections of formerly feminine 3rd declension nouns gave rise to a new (controller) gender value, the fourth gender, thus affecting the gender system as such.

4 Change in pronominal gender marking on the model of noun inflectional classes

The present section discusses another case in which gender marking and inflectional class have short-circuited, as it were. The evidence comes from some dialects of Northern Sardinia: these are varieties of Logudorese Sardinian (cf. map in fig. 1), which are spoken on the border with Gallurese and Sassarese, and the changes at issue are ultimately motivated by contact (as argued in Loporcaro 2006, 2012). While the change I shall be focusing on concerns the pronominal system, as made explicit in this section’s title, that specific change is part of a broader scenario which also involves changes in the marking of gender on nouns. In this domain, one witnesses a change which is the mirror image with respect to that found in Northern Calabria (§3): when the system for gender-marking changed, it was noun inflection that was adjusted as a consequence, rather than the other way round. The starting point is the common Logudorese system (as found in the dialects spoken further south):

(14)	Gender agreement	Noun inflection classes		Latin	Logudorese				
	SG PL	SG	PL						
M	<table border="1"><tr><td>-u</td><td>-ɔs</td></tr></table>	-u	-ɔs	<table border="1"><tr><td><i>su yaɖɖu</i></td><td><i>sɔs kaɖɖɔs</i></td></tr></table>	<i>su yaɖɖu</i>	<i>sɔs kaɖɖɔs</i>		< CABALLUM, -OS	2 nd class ‘horse’
-u	-ɔs								
<i>su yaɖɖu</i>	<i>sɔs kaɖɖɔs</i>								
F	<table border="1"><tr><td>-a</td><td>-as</td></tr></table>	-a	-as	<table border="1"><tr><td><i>sa ɣraβa</i></td><td><i>sas kraβas</i></td></tr></table>	<i>sa ɣraβa</i>	<i>sas kraβas</i>		< CAPRAM, -AS	1 st class ‘goat’
-a	-as								
<i>sa ɣraβa</i>	<i>sas kraβas</i>								

In this system, much like in Italian or Spanish, there are two genders with parallel marking, which is not the case in the other dialects with which Northern Logudorese is in contact. Sassarese and Gallurese, in fact, have a convergent system (in Corbett's 1991: 155 terms)¹¹. Examples stem from Gallurese (cf. Corda 1990²: 14–15, 20). As for the aspects relevant here, Sassarese displays the same situation (cf. Guarnerio 1892–98: §§207, 209):

(15)	Gender agreement	Noun inflection classes		Gallurese (= Sassarese)
		SG	PL	Latin
M		-u		< CATTUM, -I/-OS 2 nd class 'cat'
			-i	
F		-a		< VACCAM, -AE/-AS 1 st class 'cow'

		SG	PL	
		<i>lu jattu</i>	<i>li jatti</i>	
		<i>la akka</i>	<i>li akki</i>	

The convergent system in (15) arose via regular sound change, as final unstressed *-e*, formerly the exponent of feminine plural agreement, merged with *-i*, originally signalling masculine agreement. Now, the northern Logudorese dialects which are in contact with the system in (15) have replicated it: the dialect of Sènnori ([16]) – which is in contact with Sassarese, spoken in nearby Sorso – has extended the *-os* ending, which used to mark MPL and still does in Logudorese (cf. [14]), but now simply is a plural marker, unspecified for gender:

(16)	Gender agreement	Noun inflection classes		dialect of Sènnori
		SG	PL	Latin
M		-u		< CATTUM, -OS 2 nd class 'cat'
			-OS	
F		-a		< VACCAM, -AE/-AS 1 st class 'cow'

		SG	PL	
		<i>s(u) attu</i>	<i>sɔ vváttɔzɔ</i>	
		<i>s(a) akka</i>	<i>sɔ bbákkɔzɔ</i>	

(17)	Gender agreement	dialect of Sènnori
	MPL <i>sɔz</i> <i>ixxóbulɔzɔ</i> 'the brooms', <i>sɔ</i> <i>xxáɖɖɔzɔ</i> 'the horses', <i>sɔ</i> <i>bbaxxónɛzɛ</i> 'the windows'	
	FPL <i>sɔz</i> <i>ébbɔzɔ</i> 'the mares', <i>sɔ</i> <i>jánnɔzɔ</i> 'the doors', <i>sɔ</i> <i>mmuðánnɔzɔ</i> 'the panties' ¹²	

¹¹ In (14)–(16) and (18), gender (and number) agreement is exemplified with the endings of 1st class adjectives (e.g. *bonu*, *bɔnɔs*, *bɔna*, *bɔnas* 'good:MSG/MPL/FSG/FPL'), reported in the box on the left-hand side.

¹² Variation in the plural form of the article (*sɔs*, *sɔz*, *sɔ* + doubling of the following initial consonant) is phonologically determined via external sandhi and has no relevance for morphology.

As apparent from the data in (16)–(17), here a symmetrical change occurred with regard to the northern Calabrian and Old Romanesco facts considered in §3, since change in agreement marking resulted in reshaping of noun inflections too: thus, 1st class feminines changed their ending taking on *-ɔs*, formerly associated predominantly with 2nd class masculine nouns (and categorically with masculine plural agreement on adjectives and determiners).

Some 60 kilometers more to the east, a similar change in gender marking on nouns took place in another northern Logudorese dialect, that of Luras, a Logudorese enclave in Gallura. This dialect too acquired a convergent system due to contact with Gallurese ([15]). Contrary to Sennorese, the plural marker that was extended in Lurese is the originally feminine ending *-as*, and an additional difference is that this ending did not creep into noun inflection, so that 1st and 2nd class nouns preserve distinct plural endings (*-/as/* vs. *-/ɔs/*):

(18)	Gender agreement	Noun inflection classes	dialect of Luras
	SG PL	SG PL	Latin
M	-u	<i>su yaɖɖu</i>	< CABALLUM, -OS 2 nd class ‘cat’
	-as	<i>sas káɖɖɔzɔ</i>	
F	-a	<i>sa vémina</i>	< FEMINAM, -AS 1 st class ‘woman’
		<i>sas féminaza</i>	

Having laid the appropriate premises, I now move on to consider change in gender marking in pronouns, which also took place in this variety of Northern Logudorese. Once set in motion, as it were, by contact-induced change, whose results are synthesized in (18), gender marking was reshaped on personal pronouns too. Lurese, in fact, departs from the rest of Sardinian (and of the Romance languages in general) in having a binary gender contrast but three distinct forms, differing for the gender value, in the stressed 3rd person pronouns. This is synthesized in (19):¹³

The plurals in the phrases in (16)–(17) are given in phonetic transcriptions: hence the rendering as *-[ɔzɔ]*, which mirrors epithesis in the plural ending *-/ɔs/*.

¹³ Cf. Loporcaro (2006: 339–340, 2012: 218–221) for examples. The divides among Latin etyma in the box on the right-hand side mirror the Lurese system and do not match the morphosyntactic feature specifications of the corresponding forms in the Latin paradigm.

- (19) 3
- rd
- person pronouns in the Logudorese dialect of Luras (Depperu 2006: 389)

	SG	PL		Latin etyma	
M=F	<i>isɛɛ</i>	<i>ísɛɛzɛ</i>	(unmarked for gender)	IPSE	–
M	<i>issu</i>	<i>íssɔzɔ</i>	(masculine, marked)	IPSUM	IPSOS
F	<i>issa</i>	<i>íssaza</i>	(feminine, marked)	IPSAM	IPSAS

The forms which are normally used are unmarked for gender (*isɛɛ*, pl. *ísɛɛzɛ*), whereas the remaining ones, which do mark gender, occur only if disambiguation is needed.

The explanation for the rise of the system provided in Loporcaro (2006, 2012) postulates – as the title of the present section declares – that this change in pronominal gender marking was due to a calque on the system of noun inflectional classes. The three relevant ones are listed in (20):

- (20) Noun inflection classes in Luras Logudorese (Loporcaro 2006: 338; 2012: 223)

class	endings	example	gloss	gender	remarks
1	-a/-as	<i>sa vémina/ sas féminaza</i>	‘woman/ women’	F	<i>su βɔetta/sas pɔéttaza</i> ‘poet/-s’ (and a few other masculine nouns)
2	-u/-ɔs	<i>su yaɖɖu/ sas káɖɖɔzɔ</i>	‘horse/ -s’	M	<i>sa manu/saⁱí^l mánɔzɔ</i> ‘hand/-s’ (feminine)
3	-ɛ/-ɛs	<i>su vraðɛ/ sas fráðɛzɛ</i>	‘brother/ -s’	M	50%
	-ɛ/-ɛs	<i>sa jaɛ/saⁱí^l tʃáɛzɛ</i>	‘key/-s’	F	50%

Much like in Latin, 1st class is associated predominantly with feminine gender and 2nd class is associated almost exclusively with masculine gender; whereas to the 3rd class nouns of both genders are assigned in roughly equal proportions.¹⁴

¹⁴ Sardinian is like Latin in this respect, and contrasts with standard Italian, where Latin 1st class masculines, formerly inflected just like feminines, have developed into a separate IC: It. *poeta/-i* ‘poet/-s’ vs. *casa/-e* ‘house/-s’.

This structure of the noun inflectional system was projected onto the pronominal system in which, prior to the change – as shown to this day by the rest of Logudorese whose 3rd person pronouns are given in (21) – two forms were available for the masculine singular in free variation (*isse/issu*), alongside feminine *issa*:

(21) 3rd person pronouns in Logudorese (Wagner 1938–39: 113–116)

	SG	PL		Latin etyma	
M	<i>isse/issu</i>	<i>íssɔɔɔ</i>	(unmarked for gender)	IPSE/IPSUM	IPSOS
F	<i>issa</i>	<i>íssaza</i>	(feminine, marked)	IPSAM	IPSAS

From (21), the Lurese system ([19]) arose via exaptation, on the model provided by the system of noun inflectional classes, whereby what used to be two cell-mates in free variation (*issu/isse* in [21])¹⁵ became functionally distinct, the former as a marked masculine form, used for disambiguation, the latter as the commonly used 3rd person form, unmarked for gender.¹⁶ At this point, plural *íssɛɛɛ* must have been created, which is not the outcome of any Latin pronominal form, since, as shown by the gap in the box on the right-hand side in (19), an **IPSES never existed.

Now, let us place these data into a broader perspective. Comparing the marking of gender/number on personal pronouns and the inflection in masculine vs. feminine nouns cross-linguistically, one may find of course that no correspondence whatsoever obtains, like in Arabic, for instance:

(22) Modern Standard Arabic

	M		F	
	SG	PL	SG	PL
a. 3 rd person pron.	<i>huwa</i>	<i>hum</i>	<i>hiya</i>	<i>hunna</i>
b. nouns ('teacher')	<i>muʕallim</i>	<i>muʕallim-ūn</i>	<i>muʕallim-a</i>	<i>muʕallim-āt</i>

¹⁵ The term cell-mates, coined in Loporcaro and Paciaroni (2011: 420 fn. 29), refers to word forms occupying the same cell of one and the same inflectional paradigm, which is in turn termed 'overabundant' (cf. Thornton 2011, 2012). As pointed out by Thornton, these word forms are traditionally labelled 'doublets', but the term is ambiguous, being also used for non-synonymous lexemes with shared etymology.

¹⁶ A somewhat similar case, as pointed out to me by Jürg Fleischer, concerns Old High German feminine plural pronouns, which remained in optional use for disambiguation in a transitional stage, before yielding finally to *sie*, unmarked for gender, in the Modern German convergent marking system.

But it also happens that the marking of morphosyntactic feature values is realized with the same formatives on both nouns and pronouns. Turkish, for instance, marks number this way:

(23)	a. 3 rd person pronouns	SG	PL	Turkish
	b. nouns	<i>o</i>	<i>on-lar</i>	
		<i>yıl</i>	<i>yıl-lar</i>	‘year’

There are also languages with an even closer correspondence between noun and pronoun inflection, such as Godié, a Kru language of the Ivory coast, that has a (nearly completely) phonological system of gender assignment in which personal pronouns coincide with a subset of the nominal endings:

(24)	a. personal pronouns	SG	PL	b. nouns	Godié (Kru)
	human	ɔ	wa	<i>nyɪkpɔ</i>	‘man’
	non-human	ɛ	ɪ	<i>lvɛ</i>	‘elephant’
		a		<i>sɪka</i>	‘rice’
		ʊ		<i>nʊ</i>	‘alcoholic drink’

(Corbett 1991: 53–55; Marchese 1986; 1988: 337)

This is due here to diachronic reasons. In fact, in Marchese’s (1988) reconstruction, Godié is an instance of the classic Greenbergian scenario of a language acquiring gender marking on nouns through the univerbation of pronouns (cf. Greenberg 1978):¹⁷ in other words, the signalling of gender was imported into noun inflection from the pronoun. In our Sardinian case, on the other hand, just the opposite was the case, since the system of noun inflectional classes was copy-pasted onto the pronominal system for the marking of gender on the agreeing forms of 3rd person pronouns. This is all the more striking, if one keeps in mind that we are dealing with ICs of the IE kind, i.e. with purely morphological categories and not, for instance, with noun classes of the Niger-Congo type, which are tied inextricably to the expression of the morphosyntactic features gender and number: in a way, with the change (21) > (19) autonomous morphology has crept into the core of functionally motivated gender agreement. Compared with

¹⁷ In the symmetrical, Givónian, scenario (Givón 1976), the univerbation of personal pronouns with verbs can lead to the establishment of verb agreement.

Turkish, considered above in (23), our northern Sardinian example is again different because in Turkish the parallelism in marking between nouns and pronouns concerns a morphosyntactic functional category (i.e. number) without any intermediation of morphology proper, which has no role to play there because, as is well known, in Turkish “there are no inflectional classes” (Wurzel 1989: 74).

In Lurese, moreover, the system (19) which arose as an output of the change discussed seems to require for us to add one more colour to the WALS map 44 (Siewierska 2005) on gender distinctions in independent personal pronouns. This, as it stands, lists five different options, in addition to lack of distinction, but records no case of distinction in 3rd person only, also for non-singular, and just for disambiguation.

5 Inflection (inherent and contextual) constrains syntactic change

The last case I am going to discuss takes us back to Northern Calabria. In Loporcaro (2010: 167–171) I have analyzed a dialect (the one of Castrovillari, in the province of Cosenza), in which the syntactic rule of past participle agreement with a DO is unexpectedly sensitive to the morphology of the participle. This is interesting, because it seems to violate a widespread expectation: “we do not expect to find genuine morphological conditions on agreement, because of the principle of ‘morphology-free’ syntax” (Corbett 2006: 184). The principle goes as follows:

syntax can be sensitive to abstract properties realized in morphology, but not to specific inflectional marks for these properties (to dative case, say, but not to a particular dative case marking, or to a declension class for nouns); and it can be sensitive to syntactic subcategories of lexemes, but not to specific derivational marks for these subcategories (to abstract Ns, say, but not to just those abstract Ns with the derivational suffix *-ness*) (Zwicky 1996: 301).

In the following years I conducted some more fieldwork on the area, so I am providing in (25)–(27) data from another nearby dialect which also show the same unexpected behaviour, viz. the dialect of Verbicaro (cf. Loporcaro and Silvestri 2011). The morphology of the relevant participle forms is displayed in (25):

- (26) a. *rɔsa s a llavata/*-ə*
 Rose(F) REFL have.PRS-3SG wash:PTP-F.SG/-M.SG
 ‘Rose has washed herself’
- b. *rɔsa s a kkɔtt-a/*kkuətt-ə*
 Rose(F) REFL have.PRS-3SG scald:PTP\F-F.SG/scald:PTP\M-M.SG
kk a past-a vɔddwent-a
 with DEF.F.SG noodles(F)-SG hot-F.SG
 ‘Rose has scalded herself with hot noodles’

However, just in the context where the potential agreement controller is a lexical (i.e. non-clitic) direct object noun phrase, the morphology of the participle does make a difference, unexpectedly:

- (27) a. *ʝǵəseppə a llavat-ə/*-a n-a*
 Joseph(M) have.PRS-3SG wash:PTP-M.SG/-F.SG INDEF-F.SG
kammis-a
 shirt(F)-SG
 ‘Joseph has washed a shirt’
- b. *pátrə=ma a kkɔtt-a/*kkuətt-ə*
 father(M)=1SG have.PRS-3SG cook:PTP\F-F.SG/\M-M.SG
n-a kassarɔl-a ɪ past-a
 INDEF-F.SG pot(F)-SG of pasta(F)-SG
 ‘my father has cooked a pot of pasta’

In this context, past participle agreement tends to be lost across Romance, except in a few conservative areas including the dialects spoken further north of the northern Calabrian varieties at issue.¹⁹ Thus, apparently, the syntactic change consisting in the loss of agreement in precisely this one context (but not else-

¹⁹ These are the same dialects in which, as said above, all regular participles have become uninflected, like in French. Thus, in those dialects, there is a conflict between a conservative (and maximally extensive) object agreement rule, on the one hand, and an innovative morphology, which renders the application vs. non-application of the rule empirically indiscernible. Conversely, in the dialects spoken further south in central-southern Calabria and in Sicily, final vowels have not merged so that inflections remain distinct, on participles and elsewhere, but in spite of that the object agreement rule has become much more restrictive, for purely syntactic reasons. The area in which this exception to morphology-free syntax came into being is ‘trapped’, as it were, in between, which may help explain why precisely in these northern Calabrian dialects syntactic change took such an unexpected path (cf. Loporcaro 2010: 172, Loporcaro and Silvestri 2011: 348).

where, e.g. not in [26]) is creeping into the system, but this happens unexpectedly in a way that is sensitive to the morphology of the participle: if this possesses a paradigm of type (25a), then object agreement has become ungrammatical, as shown in (27a). Here, the participle could in principle agree, since FSG *lavat-a* is a perfectly grammatical form: yet, it never does, and the same goes for participles of type (25b) when occurring in the same construction. However, in the same syntactic context, strong participles of type (25c), which signal gender agreement with multiple exponence, must agree.

The data in (27), thus, are evidence for a loop between syntax and morphology of the kind ruled out by Zwicky's principle. First, the syntactic component has to scan the different clause types and establish in which ones the participle has to agree with the DO, as in (26), and in which ones agreement is barred, because the syntactic conditions are not met. This is the case, for instance, in clauses containing an unergative predicate, which usually (as seen in §2) do not display past participle agreement across Romance since they contain no DO:

- (28) a. *rɔ:sa* *a* *mmanǰat-ə/*-a* *abbɔŋa*
 Rose(F) have.PRS-3SG eat:PTP-M.SG/-F.SG enough(F)-SG
 'Rose has eaten enough'
- b. *rɔ:sa* *a* *rəs'puəʂə/*rəs'pɔ:sa*
 Rose(F) have.PRS-3SG answer.PTP-M.SG/-F.SG
 'Rose has answered'

Here too, as in (26), the syntactic rule applies as expected, without any sensitivity to morphology: the inflectional class the participle belongs to (be it of type [25a], as in [28a], or of type [25c], as in [28b]) is irrelevant. Once the contexts in (26) and (28) have been sorted out, however, it turns out that just for the syntactic context in (27) syntactic information alone is not sufficient to establish whether object agreement shall or shall not take place. Only in this context does the agreement rule have to check the IC of the participle, in order to let it agree if it belongs to class (25c), and to prevent it from agreeing elsewhere.

Thus, we are witnessing a genuine loop between morphology and syntax, which I will not dwell on any longer here.²⁰ Suffice it to say that these northern Calabrian data seem to provide a bona fide instance of a problematic case, of the kind portrayed by Corbett (2009: 150):

²⁰ Cf. Loporcaro (2010: 172) for the formulation of the object agreement rule obtaining in the dialect of Castrovillari, identical to the one of Verbicarese.

on the other hand, linguists occasionally propose analyses which are not in accord with the principle [of morphology-free syntax, M.L.], and do so almost non-chalantly, as though the violation were of no great import.

Definitely, this violation is of some import, and it awaits reanalysis, so that it can be reconciled with the expected state of affairs foreseen by the morphology-free syntax principle. As of now, though, I cannot see how this exception can be explained away.

6 Conclusion

As shown in the foregoing pages, the domain of agreement phenomena offers one more illustration of the structural diversity of Italo-Romance dialects, which host linguistic data in store that deserve to be brought to the attention of language typologists.

In fact, inspection of dialect variation and diachronic change in this structural domain across Italo-Romance does service in many ways to the typological database for the study of agreement: as we saw in §2, such a study reveals instances of double agreement which help dispel hastily made assumptions about parameter-setting in IE; as shown in §3, it further presents the linguist with clear cases in which change in the agreement system, with the rise of a new gender value, was triggered by analogical extension of the endings of an inflectional class onto gender/number-agreement targets (determiners and modifiers); furthermore, as discussed in §4, it provides examples of noun inflectional classes serving as a model for reshaping gender agreement on personal pronouns; finally, as argued in §5, it confronts the linguist with what appear to be instances of syntactic agreement rules which are sensitive to the morphology of the agreeing targets, in a way that contradicts well-established (and entirely reasonable) expectations on the working of the morphology-syntax interface.

In a nutshell, the results of the present paper show that, if taken seriously, dialect variation even at the heart of Europe (and of Standard Average European) provides much more challenging data for testing general linguistic theories than most linguists would suspect.

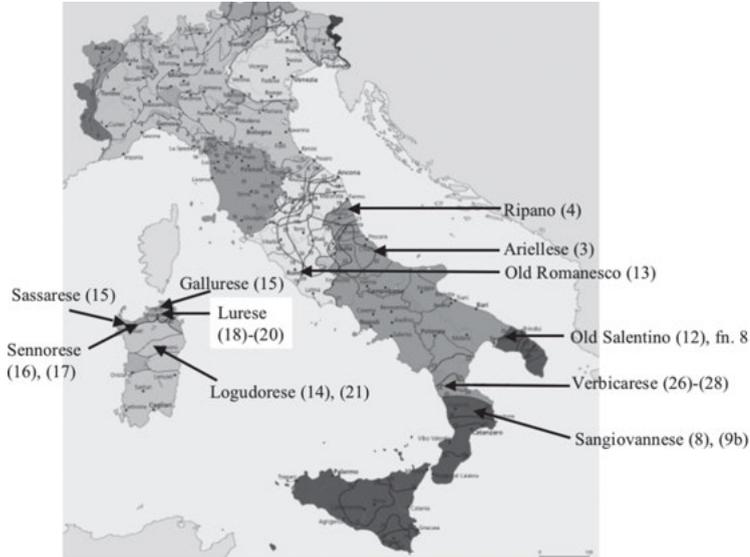


Figure 1: On the map, based on Pellegrini's (1977) *Carta dei dialetti d'Italia*, the Italo-Romance dialect data discussed in this paper are localized indicating where they are mentioned in the text.

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