

Proper Subset Relation and Concord: Agreement in Abruzzese Possessive Copular Constructions^{*}

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1. Introduction

Agreement between two lexical items is conceived, according to the most recent developments of Chomsky's Minimalist Program (Chomsky 2000ff), as a match relation between a Probe and a Goal followed by an Agree operation. A consequence of Agree is deletion of the Probe's uninterpretable features. According to Chomsky (2000:122ff):

- (1) The ϕ -set we can think of as a probe that seeks a goal, namely "matching" features that establish agreement. [...] Locating this goal, the probe erases under matching. [...] The erasure of uninterpretable features of probe and goal is the operation we called Agree.
[...] Matching is a relation that holds of a probe P and a goal G. Not every matching pair induces Agree. To do so, G must (at least) be in the domain D(P) of P and satisfy locality conditions. More generally, uninterpretable features render the goal active, able to implement an operation. The operations Agree and Move require a goal that is both local and active. '

In this paper, we wish to explore the possibilities that this definition of Agree offers, and show some cases in which it cannot account for specific data. We consider the case of possessive copular constructions (PCC) in two varieties of Abruzzese, a southern Italian dialect spoken in the central region of Abruzzo, and show that the machinery offered by Agree cannot account for agreement in such constructions. We propose an analysis of these data in terms of the operation Agree-concord, which is different from the Agree-check proposed by Chomsky (see Di Sciullo 2005, Di Sciullo and Isac 2003, 2007) and show that agreement in Abruzzese obtains between a feature set and its subset.

^{*} This work is supported in part by funding from the Social Sciences and Humanities Research Council of Canada to the Interface Asymmetry Project, grant number 214-2003-1003, as well as by a grant to the Dynamic Interfaces Project from FQRSC, grant number 103690. www.interfaceasymmetry.uqam.ca

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Before discussing the agreement patterns in Abruzzese PCCs, we point that, contrary to Agree-check, Agree-concord does not relate active elements and it does not lead to the checking/deletion of uninterpretable features. We propose that the feature on the possessive PP are checked via Agree-concord. Specifically, we define Agree-concord as follows:

- (2) a. Agree-check is a matching relation under which feature checking takes place.
 b. Agree-concord is a matching relation under which no feature checking takes place. [from Di Sciullo 2005:189]

The examples in (1)-(2), illustrate multiple Case and ϕ -agreement under Agree-concord.

- (3) a. una bella donna alta [Italian]
 a-f.sg nice-f.sg woman-f.sg tall-f.sg
 ‘a nice tall woman’
 b. des beaux yeux verts [French]
 of.the-pl beautiful-m.pl eyes-m.pl green-m.pl
 ‘beautiful green eyes’
 c. aspectul masinii mele vechi [Romanian]
 look.the-m.sg car.the-gen.f.sg my-gen.f.sg old-gen.f.sg
 ‘the look of my old car’ [Di Sciullo and Isac (2003:5)]
- (4) a. Marie_i sera-t- elle_i là? [French]
 Marie-nom.f.sg will.be.she-nom.f.sg there
 ‘Will Mary be there?’
 b. Pierre_i sera-t- il_i là? [French]
 Pierre-nom.m.sg will.be.he-nom.m.3rd sg there
 ‘Will Peter be there?’
 c. Vine el_i tata_i [Romanian]
 Comes he-nom.m.3rd.sg father-nom.m.sg
 d. *(e_i) pashe Jan-in_i [Albanian, Kalluli 1996]
 *(Ton_i) idha ton Yanni [MG,
 Kalluli 1996]
 him-acc.3rd.sg saw.I the.Yannis-acc.m.3rd.sg
 ‘I did see John’ [Di Sciullo and Isac (2003:5)]

We will not illustrate further the differences between Agree-check and Agree-concord here, but see Di Sciullo (2005) and Di Sciullo and Isac (2003, 2007) for discussion. We will assume that Agree-concord is distinct from Agree-check and that it is at play in the agreement pattern of Abruzzese PCCs.

1.1 Abruzzese possessive copular constructions (PCCs)

Abruzzese possessive copular constructions

Abruzzese is spoken in a central region of Italy, Abruzzo. It is an upper-southern Italian dialect. We consider two variants of this dialect: Ariellese (**AR**), spoken on the coast, and Fallese (**FA**), spoken on the mountains, both in the province of Chieti.

PCCs in Abruzzese are more complex than their Italian counterpart. While Italian displays full agreement between the subject and the pronoun (and if there is one, the determiner), AR exhibits a pattern of apparent agreement mismatch and the presence of a preposition, and FA shows an apparently defective agreement between the phrases. As an example, consider (5-7):

- | | | | | | | |
|-----|---------------------|------------|---------|----------|---------|-----------|
| (5) | La | casa | è | (la) | mia | |
| | the-f.sg | house-f.sg | is | the-f.sg | my-f.sg | [Italian] |
| (6) | La | case | jè (di) | lu | mé | |
| | the-f.sg | house-f.sg | is of | the-m.sg | my-sg | [AR] |
| (7) | La | case | è | la | mè | |
| | the-f.sg | house-f.sg | is | the-f.sg | my-f | [FA] |
| | ‘The house is mine’ | | | | | |

In (5), the possessive phrase is (optionally) introduced by the preposition *di* (‘of’). Interestingly, the determiner in the possessive phrase is masculine singular, despite the head noun is feminine, while the possessive adjective is singular (gender is not marked on the possessive). It needs to be observed that the determiner does have a feminine singular form (*la*), which as you can see appears in the beginning of the sentence. The selection of the masculine singular determiner is therefore unexpected.

FA displays a similar pattern, slightly enriched. The determiner agrees in gender and number with the DP *la case*, whereas the adjective is feminine. Before going into the details of the Abruzzese agreement patterns, we would like to remark that the structure of possessive pronouns is quite complex in this dialect, offering evidence for all those analyses according to which pronouns include several layers of functional structure (Cardinaletti & Starke 1999, Kayne 2000, Di Sciullo 2005, and others).

We have seen that Abruzzese agreement in copular constructions is considerably different from the closest Romance variety: Italian. In what follows, we wish to provide an overview of the complete paradigm of agreement for these constructions. In 2.1, we offer our analysis of these agreement patterns in terms of Agree-concord. In 2.2, we examine the proper subset condition. In 3, we address some remaining issues regarding feature ranking. 4 contains our conclusions.

2. Agreement patterns in Abruzzese copular possessive constructions

As we saw above, in AR the determiner and the possessive adjective agree in number with the possessive phrase, but there is no gender agreement. More specifically, the determiner is always masculine, both when the head noun is feminine and when it is

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masculine. In FA we see almost the same pattern, in that both the determiner and the possessive agree in gender with the head. Moreover, the determiner also shows number agreement. The complete agreement patterns of possessive copular constructions are presented in (8):

(8)	AR		FA
a.	La case jè (di) lu mé		La case è la mè
	the-fsg house-fsg is of the-msg my-sg		the-fsg house-fsg is the-fsg my-f
b.	Li case jè (di) li mi		Li case è li
	mè		
	the-pl houses-fpl are of the-pl my-pl		the-pl houses-fsg is the-pl my-f
c.	Lu cane jè (di) lu mé		Lu cuane è lu
	mié		
	the-msg dog-msg is of the-msg my-sg		the-msg dog-msg is the-msg
	my-m		
d.	Li chine jè (di) li mi		Li chiene è li mié
	the-pl dogs-mpl are of the-pl my-pl		the-pl dogs-mpl are the-pl my-m

As we can see in (8), AR shows consistent agreement in number but not in gender with the head noun, whereas FA has a richer agreement pattern for the determiner. This given, the questions we wish to address are:

- Why does the DET in AR not inflect for gender? (Remember that in AR there is a feminine singular determiner *la*), and:
- Are the agreement patterns in (8) obtainable through Agree-check (i.e. standard Agree)?

Before trying to provide an answer to these questions, let us consider a plausible objection to our analysis, namely these examples could instances of partitive constructions. We can claim with a good degree of certainty that this is not the case. Both AR and FA have a partitive construction, and its agreement patterns differ radically from those of possessive copulars, as illustrated in (9).

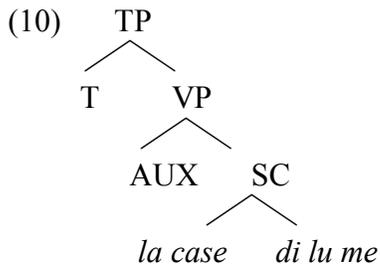
(9)	a.	Na/ *la	machine	di	li	mi	[PART]	(AR)
		a-fsg	the-f.sg	car-f.sg	of	the-pl	my-pl	
	b.	La	machine	jè di lu	me		[POSS]	(AR)
		the-f.sg	car-f.sg	is of the-m.sg	my-sg			
	c.	Na/ *la	machina	mè			[PART]	(FA)
		a-f.sg the-f.sg	car-f.sg		my-f			
	d.	La	machine è la	mè			[POSS]	(FA)
		the-f.sg	car-f.sg is the-f.sg	my-f				

In AR, the partitive requires a plural possessive DP and an obligatory preposition. In FA, the partitive does not require a determiner or a preposition. Hence, we can conclude that we are dealing with two different constructions. However, the presence of the preposition *di* in AR PCCs suggests that these constructions might be derived from old partitives,

where the 'partitivity' is now transferred from the original quantities to the syntactic features. Let us now tackle the last question: are these patterns obtainable through Agree?

2.1. Agree-concord

Consider again the sentences in (6)-(7). What is the syntactic derivation for these sentences? *La case* has uninterpretable Case and interpretable ϕ -features. We analyse (6) and (7) as involving a predicative copula.



La case receives Nominative via Agree-check with T. Agreement between *la case* and the PP complement *lu me* is however not obtainable through Agree-check, as there are no uninterpretable features on the PP (and Case is plausibly assigned to *lu me* by the preposition). So, *di lu me* is in principle invisible to *case*, which cannot probe it since its ϕ -features and Case are interpretable. How is agreement obtained then? We propose that the features on the possessive PP are checked via Agree-concord (see 2). We follow Di Sciullo (2005) by proposing that Agree-concord is a matching relation, which does not have feature checking as a consequence. In other words, it is pure Match. The conditions in which Agree obtains are defined by Di Sciullo as follows:

- (11) Agree as a proper subset relation:
 Agree (ϕ_1 , ϕ_2): Given two sets of features ϕ_1 and ϕ_2 , Agree holds between ϕ_1 and ϕ_2 , iff ϕ_1 properly includes ϕ_2 . [Di Sciullo (2005: 30)]

(11) states that Agree obtains only when a set of features properly includes the set of features that it probes. As we will see, this proper subset condition is vital for the analysis of the agreement patterns in AR and FA possessive copular constructions.¹

¹ Defined as a proper subset relation, Agree is asymmetrical wrt the properties of the sets of features to which it applies. (i) *Proper subset relation*: A is a proper subset of B, or is properly included in B, whenever A is a subset of B but A is not equal to B. (ii) *Subset relation*: Given two sets A and B, if all the members of A are also the members of B, A is a subset of B. Given Agree, defined in terms of the proper subset relation, the properties of movement chains at the interfaces, and the constraints on sub-extraction follow. See Di Sciullo and Isac (2007) for discussion. Given Agree, defined in terms of the proper subset, the formal constraints on morphological merger follow. See Di Sciullo (2005).

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Let us now move on to the derivation of (6) and (7). The first step is to determine the feature bundles characterizing the lexical items in the derivation. The following tables illustrate the morphological paradigm of possessive adjectives in AR and FA.

Possessive adjectives in AR vary according to number, whereas in FA they vary according to number and gender.

(12)

	SINGULAR MASC/FEM	PLURAL MASC/FEM
my	mé	mi
your	té	ti
his /her	sé	si
our	nostre	nustre
your	vostre	vustre
their	sé	si

In FA, possessive adjectives vary in gender, but not in number, (13):

(13)

	FEMININE SG/PL	MASCULINE SG/PL
my	mè	mié
your	tè	tié
his /her	sè	sié
our	nostre	nuostre
your	vostre	vuostre
their	sé	sié

As for the determiner, we see the following paradigms in AR and FA:

(14)

	AR	FA
masc sg	lu	lu
masc pl	li	li
fem sg	la	la
fem pl	li	li

The plural forms have neutralised into *li*, and this might lead us to conclude that the only feature present on plural determiners is number. However, due to the fact that we see a gender/number alternation in the singular, we assume that the gender feature is also present in the plural in virtue of paradigm uniformity. Specifically, we assume that plural number is *disjunctive* for gender, including both masculine and feminine (D'Alessandro 2007). This is not the case for adjectives in AR, where gender is never distinctive, and in FA, where number is never distinctive. For adjectives, we maintain that they only inflect for number in AR (see also participles, which present the same agreement patterns, as

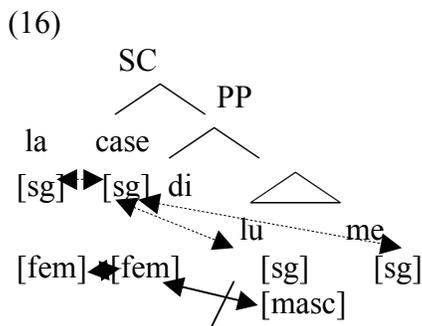
shown in D'Alessandro & Roberts 2007) and that they only inflect for gender in FA. This said, we can finally address the derivation of (6) and (7).

2.2. Proper subsets

Consider (6) again:

(15) La case jè (di) lu mé
 the-f.sg house-f.sg is of the-**m**.sg my-sg [AR]

(16) represents the syntactic derivation of the SC (where the arrows indicate that Agree-concord has taken place):



From (16) we can immediately see that the singular feature of the head noun *case* Matches with all other singular features in the SC. This means that we have an Agree-concord configuration. The gender features are not in Match, however, as *case* is feminine but *lu* in the possessive DP is masculine. This is perfectly expected given our definition of Agree-concord as requiring a subset relation. Recall that Agree-concord in (11) is defined as follows:

(11) Agree as a proper subset relation:

Agree (ϕ_1, ϕ_2): Given two sets of features ϕ_1 and ϕ_2 , Agree holds between ϕ_1 and ϕ_2 , iff ϕ_1 properly includes ϕ_2 .

Consider furthermore the feature setup of the lexical items that enter the derivation in (16). Following to Chomsky (2001), we assume that the ϕ -set on pronouns is {person, number, gender}. As for NPs, it is a quite common assumption to consider them as equivalent to 3rd person pronouns. 3rd person pronouns are however problematic with respect to the real value of the person feature. According to Benveniste (1966) and all the literature descending from that, 3rd person is equivalent to no person. This would mean, in our case, that the head noun would not have a person feature at all. Following D'Alessandro (2004a, 2004b), we assume instead that 3rd person is person, and therefore

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that the person feature on the head noun is present.² Determiners obviously lack [person]. Hence, we can conclude that the feature bundle of (13) is as follows:

(17)

<i>case</i>	<i>lu</i>	<i>mé</i>
[sg]	[sg]	[sg]
[fem]	[masc]	
[3 rd]		

We can see that Agree-concord only takes place between the (singular features, disregarding singular determiner would be available in the lexicon) but for number. We address this issue in section 3. For the plural, we have the same configuration (remember that:

(18)

Li	case	jè	(di)	li	mi
the-f.pl	houses-f.pl	are	of	the-pl	my-pl

The following features enter into Agree-concord:

(19)

<i>case</i>	<i>li</i>	<i>mi</i>
[pl]	[pl]	[pl]
[fem]	[fem][masc]	
[3 rd]		

(19) graphically exemplifies how only a proper subset of the \square -features enter Agree-concord.

Let us now turn to consider the case of FA. In FA, the situation is different from AR, in that gender agreement is present on every element, as shown in (20):

(20)

La	case	è	la	mè
the-f.sg	house-f.sg	is	the-f.sg	my-f

In (20), the gender features, a subset of [gender][number], enter Agree-concord:

(21)

<i>case</i>	<i>la</i>	<i>mé</i>
[fem]	[fem]	[fem]
[sg]	[sg]	
[3 rd]		

The same holds for the plural, where [gender] is the subset that enters Agree-concord.

² Observe that adjectives also have person (i.e. the feature referring to the possessor), but this person is not syntactically expressed. It is a purely semantic feature.

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(22) Li case è li mè
the-f.pl house-f.pl is the-pl my-f.pl

(23)

<i>case</i>	<i>li</i>	<i>mé</i>
[fem]	[fem]	[fem]
	([masc])	
[pl]	[pl]	
[3 rd]		

Finally, observe that Agree-concord is at work also in Italian, where, however, the determiner and the possessive have a fully-fledged ϕ -set. In the case of Italian, the features [gender] and [number] enter Agree-concord.

(24) Le case sono le mie
the-f.sg houses-f.pl are the-f.pl my-f.pl
‘The houses are mine’

(25)

<i>case</i>	<i>le</i>	<i>mie</i>
[fem]	[fem]	[fem]
[pl]	[pl]	[pl]
[3 rd]		

3. Feature ranking

Let us now turn to the following question that has been left unaddressed so far: Why is number (and not gender, which would be available) selected for agreement in AR?

In (14), we have seen that the determiner in the possessive phrase is masculine singular. We have shown that agreement obtains via Agree-concord, but the question that was left unanswered concerns the reason why a masculine determiner is selected when a feminine one could be selected from the lexical array. The easy way to go would be to say that there is no feminine determiner in the lexical array of the sentence. However, if we had a lexical array of this sort:

{ la, case, jè, di, la, me }

in principle, the sentence formed with these items (in 26) should converge, but this is not the case.

(26) *La case jè (di) la mè [AR]
the-f.sg house-f.sg is of the-f.sg my-sg

The features that would enter Agree-concord in (26) are listed in (27).

<i>case</i>	<i>la</i>	<i>mé</i>
-------------	-----------	-----------

(27)

[sg]	[sg]	[sg]
[fem]	[fem]	
[[3 rd]		

In (26), we have no principled rule to exclude Agree-concord from taking place. (26) would offer a situation similar to FA, where indeed this derivation converges. Hence, there would be no reason for the same derivation not to converge in AR. In other words: how can we rule out the derivation in (26) in AR, given that this derivation converges in the parallel dialect FA?

The situation for AR and FA is more complex than what we have considered so far. Both AR and FA have a feature ranking (see Harley & Ritter 2002) which is directly relevant for every derivation. In AR, [number] is more prominent than [gender]. In FA, the reverse is true:

- (28) AR: NR>GN
 FA: GN>NR

3.1. Evidence for feature ranking in AR

According to our proposal in (28), in AR [number] is more prominent than [gender]. Evidence for this is offered in several other grammatical contexts, such as the ones presented in D'Alessandro & Roberts (2007), who show that [number] is the only feature that enters Agree in AR past participle agreement. Consider (29):

- (29) a. Giuwanne a pittate nu mure (AR)
 John-sg has-3rd sg/pl painted-pp.sg a wall
 'John has painted a wall' [sg SUBJ-sg OBJ]
- b. Giuwanne a pittite ddu mure
 John-sg has-3rd.sg painted-pp.pl two walls
 'John has painted two walls' [sgSUBJ-plOBJ]
- c. Giuwanne e Mmarije a pittite nu mure
 John and Mary-pl have-3rd.sg/pl painted-pp.pl a wall
 'John and Mary have painted a wall' [pl SUBJ- sg OBJ]
- d. Giuwanne e Mmarije a pittite ddu mure
 John and Mary-pl have-3rd.sg/pl painted-pp.pl two walls
 'John and Mary have painted two walls' [pl SUBJ-pl OBJ]
- [D'Alessandro & Roberts 2007: 7]

The examples in (29) show that the PP always agrees with the argument which is specified as plural, independent of whether it is the subject or the object. This is not the case in FA, which agreement patterns like IT, as shown in (30).

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