

## 1. Introduction

In the present article we examine a peculiar auxiliary construction found in the Eastern Abruzzese dialect of Arielli (CH) spoken in upper southern Italy. The construction in question concerns the formation of the pluperfect which, from a Romance typological perspective, proves quite remarkable in this dialect in that it involves the use of two finite auxiliaries in conjunction with the past participle, as illustrated in (1):

- 1 *So' 'vé parlate*  
BE.1sg. HAVE.past.impf. spoken  
'I had spoken'

The pluperfect is thus formed in this dialect, at least in the 1<sup>st</sup> and 2<sup>nd</sup> persons, by combining a present tense form of auxiliary BE and a past tense form of auxiliary HAVE with the participle, giving rise to what we shall refer to as the Double Auxiliary Construction (henceforth DAC). As we shall see, this construction raises a number of significant questions, including, for example: i) why there is an asymmetry in auxiliary selection between the higher and lower auxiliaries, with the latter auxiliary invariably surfacing as HAVE, apparently insensitive to the person-driven HAVE-BE split operative in

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the higher auxiliary; and ii) whether feature bundles are uniformly arranged on functional heads across languages. In considering these questions, we shall investigate the properties of the T-*v* system in Ariellese, where the evidence of the DAC can be profitably interpreted to throw light on the nature of auxiliary selection and feature spreading, which come together in an interesting and illuminating way in this dialect. Finally, it is worth noting how the Ariellese DAC provides potentially important clues as to the origins of similar southern Italian verbal forms: from a diachronic perspective the Ariellese DAC might be taken to represent a conservative stage in an original dual auxiliary construction, witness the fact that both auxiliaries in (1) constitute separate morphophonological entities, whereas in other southern dialects this original DAC appears to have undergone reanalysis as a single verb form (e.g. *seva*: *s*' < *essere* 'BE' + *eva* < *avere* 'HAVE') to produce what have synchronically been interpreted as deviant forms of one or the other auxiliary (see Rohlf's 1968:294; Cennamo, this volume §3.2).

## 2. Ariellese auxiliary selection and past participle agreement

In the present perfect Ariellese displays the classic person-based auxiliary split widely found in a number of central-southern varieties (Tuttle 1986; Nash 1997; Ledgeway 2000: 192-5; Manzini and Savoia 2005, II: 681). Accordingly, the 1<sup>st</sup> and 2<sup>nd</sup> persons select auxiliary BE (*esse*), whereas the 3<sup>rd</sup> person selects auxiliary HAVE (*avé*), a pattern which holds for all verb classes irrespective of argument structure, witness the examples with transitive/unergative and unaccusative participles in (2a-f):

2 a *So magnate (tutte) l'rrevate*

BE.1sg. eaten.sg. (everything)/arrived.sg.

‘I have eaten (everything)/ arrived’

b **Si** *magnate (tutte) / 'rrevate*

BE.2sg. eaten.sg. (everything)/ arrived.sg.

‘You have eaten (everything)/arrived’

c **A** *magnate (tutte) / 'rrevate*

HAVE.3 eaten.sg. (everything) / arrived.sg.

‘S/he has eaten’

d **Seme** *magnite (tutte) / 'rrivite*

BE.1pl. eaten.pl. (everything)/ arrived.pl.

‘We have eaten (everything)/arrived’

e **Sete** *magnite (tutte) / 'rrivite*

BE.2pl. eaten.pl. (everything)/ arrived.pl.

‘You have eaten (everything)/arrived’

f **A** *magnite (tutte) / 'rrivite*

HAVE.3 eaten.pl. (everything)/ arrived.pl.

‘They have eaten (everything)/arrived’

Significantly, the data in (2a-f) illustrate another peculiarity of Eastern Abruzzese dialects, namely the ability of the past participle to agree with transitive and unergative, and not only unaccusative, subjects, witness the plural metaphonetic participial forms in *-ite* in (2d-f) in contrast to the singular non-metaphonetic forms in *-ate* in (2a-c). Such facts directly contradict traditional generalizations about Romance past participle agreement

(Loporcaro 1998; Belletti 2005), which explicitly rule out the possibility of participle agreement with an external argument (Manzini and Savoia 2005, II: 747-50; see D’Alessandro and Roberts 2008 for discussion). Yet, it is not correct to assume that in Ariellese participle agreement is invariably licensed by the subject, be it the external argument of a transitive/unergative predicate or the internal argument of an unaccusative, since the participle can also agree with the object, as illustrated in (3a-f):

- 3 a *So magnite li biscutte*  
 BE.1sg. eaten.pl. the biscuits
- b *Si magnite li biscutte*  
 BE.2sg. eaten.pl. the biscuits
- c *A magnite li biscutte*  
 HAVE.3 eaten.pl. the biscuits
- d *Seme magnite lu biscotte*  
 BE.1pl. eaten.pl. the biscuit
- e *Sete magnite lu biscotte*  
 BE.2pl. eaten.pl. the biscuit
- f *A magnite lu biscotte*  
 HAVE.3 eaten.pl. the biscuit
- ‘I/you/(s)he/we/you/they have/has eaten the biscuits’

In (3d-f) the plural metaphonetic form of the past participle highlights agreement with the plural subject, as expected, and not the singular object *lu biscotte* ‘the biscuit’. In (3a-c),

by contrast, the past participle, despite occurring with a singular subject, continues to exhibit the metaphonetic plural form, signalling agreement this time with the plural object *li biscutte* ‘the biscuits’. It would appear then that the correct generalization about Ariellese is that participle agreement is licensed by a plural argument, be it the subject or the object (see D’Alessandro and Roberts 2008 for extensive discussion). As we shall see, these particular agreement patterns prove crucial in understanding the Ariellese auxiliary system and the structure of the T- $\nu$  field, a correct understanding of which will allow us to explain the structure in (1). In what follows, we present the theoretical background against which we shall develop our proposal, outlining, in particular, the analysis of Ariellese auxiliary selection and participle agreement proposed in D’Alessandro and Roberts (2008).

### **3. The design of the Abruzzese T- $\nu$ system<sup>2</sup>**

In discussing person-based auxiliary splits, it has often been noted that such systems bear a strong resemblance to split ergative systems in distinguishing the 1<sup>st</sup> and 2<sup>nd</sup> persons from the 3<sup>rd</sup> person (see, for instance, Mahajan 1994; Manzini and Savoia 2005). According to Müller (2006), the ergative pattern arises when  $\nu$  licenses the subject. Starting from this observation, D’Alessandro and Roberts (2008) propose that, on a par with ergative systems, the external argument in Ariellese may be licensed by  $\nu$ . However, the  $\nu$  structure that they propose for Ariellese is more complex than that usually assumed, in that it projects a dual  $\nu$  projection, as illustrated in (4):

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<sup>2</sup> Following proposals developed in Chomsky (2005, 2006), in what follows we take functional heads to be simple feature bundles whose PF realization takes place post-syntactically, with lexical insertion operating once all feature valuation mechanisms have taken place.

The higher  $v$  (henceforth  $v_2$ ) in Ariellese holds an unvalued person feature, which allows it to license the subject. The higher  $v$  also hosts the (features of the) auxiliary, whereas the lower  $v$  (henceforth  $v_1$ ) probes the features of the object and hosts the raised past participle. On this view, auxiliaries behave as raising predicates, as first proposed by Ross (1969). If the subject is 1<sup>st</sup> or 2<sup>nd</sup> person,  $v_2$  will probe its person feature and value its Case.<sup>3</sup> The number feature of the subject will instead be probed by T. 3<sup>rd</sup> person is a non-person and thus a 3<sup>rd</sup> person subject has no person feature. Hence,  $v_2$  cannot Agree with it. This means that the subject will only be probed by T's number feature, and hence licensed by T (see D'Alessandro and Roberts 2008 for details of the derivation).

The Ariellese system is therefore different from that of other Romance languages, in that the subject can be licensed by  $v$ , witness the sensitivity to the subject's  $\varphi$ -features manifested in the HAVE-BE auxiliary alternation on  $v_2$ . D'Alessandro and Roberts conclude that BE is the spell-out of Agree between  $v_2$  and the subject. In other words, when  $v_2$  licenses the subject, BE is inserted post-syntactically at PF, whereas in every other case HAVE surfaces. It must be noted, however, that the split-auxiliary pattern only obtains in the present perfect. In the past subjunctive, for instance, the auxiliary always surfaces as HAVE. In this and similar cases, D'Alessandro and Roberts argue that T licenses the subject, be it 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> person, since T selects a  $v$  without unvalued person in these cases, and therefore the subject cannot be licensed by  $v$ .

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<sup>3</sup> Observe that D'Alessandro and Roberts (2008) assume that person valuation is enough for Case assignment to take place. In other words, Case assignment does not require  $\varphi$ -completeness.

Turning now to past participle agreement, D'Alessandro and Roberts (2008) propose that the Ariellese facts reflect the instantiation of a process of valued feature inheritance/transmission, giving rise to a case of 'feature concord'. In this regard, Chomsky (2005: 14) maintains that 'on optimal assumptions, transmission of the Agree-feature should be a property of phase-heads in general, not just of C. Hence  $v^*$  should transmit its Agree-feature to V, and probe of an object with structural Case by  $v^*$  should be able to raise it to SPEC-V, a step-by-step analogue to raising to SPEC-T by C... C and  $v^*$  are the phase heads, and their Agree-feature is inherited by the LI they select'. On the basis of Chomsky's suggestion, D'Alessandro and Roberts propose a feature inheritance mechanism equally compatible with valued features. Assuming that singular is equivalent to unvalued number, in examples like (3a-c)  $v_1$  probes the plural object and is valued [+pl.], a feature valuation which surfaces on the participle which raises out of the VP to  $v_1$ . In examples like (3d-f), on the other hand, the singular object cannot value the unvalued number feature of  $v_1$ , as [+sg.] is underspecified in Ariellese. Instead,  $v_1$  inherits the [+pl.] feature transmitted from its phase head  $v_2$ , itself valued [+pl.] after probing the plural subject, which surfaces ultimately on the participle now raised to  $v_1$ .

#### 4. Double auxiliary construction (DAC)

We now turn to the Ariellese DAC which, we noted above, presents the peculiarity of a sequence of two finite auxiliaries,<sup>4</sup> as illustrated by the representative paradigm in (5a-f):

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<sup>4</sup> Incontrovertible proof that we are indeed dealing with two distinct auxiliaries (e.g. *so'/si/a* + '*vé*'), rather than a single verb form (e.g. *\*sové*, *\*sive*, *\*avé*) possibly deriving from the historical amalgamation of two distinct auxiliaries (see Cennamo, this volume §3.2), is illustrated by examples like (i.a), where both verb forms are separated by the 3pl. indefinite weak pronoun (HOMO >) *n'ome* or *l'ome* 'one, people' (v. D'Alessandro and

- 5 a *So* 'vé *viste*  
 BE.1sg. HAVE.past.impf. seen
- b *Si* 'vé *viste*  
 BE.2sg. HAVE.past.impf. seen
- c *A* 'vé *viste*  
 HAVE.3 HAVE.past.impf. seen
- d *S'* *av(av)eme* *viste*  
 BE.1/2 HAVE.1pl.past.impf. seen
- e *S'* *av(av)ete* *viste*  
 BE.1/2 HAVE.2pl.past.impf. seen

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Alexiadou 2006), and examples like (i.b) from neighbouring dialects (e.g. Ortonese (CH)), where both verb forms are separated by an enclitic object pronoun (Ariellese licenses proclisis in such cases):

- i a *j'à* *n'ome* 'vé *rrubbiete*  
 to-him=HAVE.3 n'ome HAVE.past.impf. robbed  
 'He had been robbed' (Verratti 1998: 105)
- b *Sotte* 'vé *viste*  
 BE.1sg.=you have.past.impf. seen  
 'I had seen you'

By contrast, the 1/2pl. forms *s'av(av)eme* and *s'av(av)ete* appear to be more plausible candidates for a synchronically compound verb status at PF, witness the impossibility in neighbouring dialects of pronominal enclisis to *s'* along the lines of (i.b) above (e.g. \**s'te av(av)eme/av(av)ete viste* 'we/you had seen you'). Why both auxiliaries should exhibit greater morphophonological and syntactic integration in the 1/2pl. than in the other persons of the paradigm is a question that we leave for future research.

f A 'vé viste  
 HAVE.3 HAVE.past.impf. seen  
 'I/you/(s)he/we/you/they had seen'

Significantly, the lower auxiliary invariably surfaces across the entire paradigm as an inflected past tense form of HAVE as the sole exponent of imperfective past tense in the construction,<sup>5</sup> whereas the higher auxiliary displays a classic person-based auxiliary split with BE (viz. *s(V)*) in the 1<sup>st</sup> and 2<sup>nd</sup> persons and HAVE (viz. *a*) in the 3<sup>rd</sup> person identical to that found in the present perfect (cf. 2a-f). As a consequence, the  $\phi$ -features of the subject are variously distributed and spelt out across both auxiliaries. More specifically, in the 1/2sg. and 3<sup>rd</sup> person, where the lower HAVE auxiliary presents a syncretic form (viz. 'vé < HABEBAM/-S/-(N)T), person is unambiguously marked on the higher auxiliary through the person-driven HAVE-BE split, whereas in the 1/2pl., where the lower HAVE auxiliary already unambiguously marks person and number, the higher auxiliary is limited to marking the [-3person] feature through the reduced BE formant *s'* (cf. the 'richer' person and number forms *seme/sete* in the present perfect in (2d-e)).

The Ariellese pluperfect thus exemplifies through the DAC an interesting case of feature-spreading in the discontinuous expression of the subject's  $\phi$ -features across both auxiliaries, as well as a complex asymmetry in auxiliary selection with the lower auxiliary invariably surfacing as HAVE, insensitive to the person-driven HAVE-BE split operative in the higher auxiliary along the lines of the present perfect. Both of these phenomena, we

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<sup>5</sup> The syncretic auxiliary 'vé is a commonly reduced form of 1sg. and 3<sup>rd</sup> person *avé* (< HABEBAM, HABEBA(N)T) and of 2sg. *avive* (Verratti 1998: 71, 73), in the same way that 1/2pl. *avaveme* and *avavete* are frequently reduced to *aveme* and *avete*, respectively.

claim, are a direct consequence of the design of the Ariellese T-*v* system. In particular, following D’Alessandro and Roberts’ (2008) analysis of the Ariellese T-*v* system outlined in §3, we interpret the Ariellese DAC as a direct instantiation of the double *v* projection, the higher auxiliary lexicalizing *v*<sub>2</sub>, hence its sensitivity to the  $\phi$ -features of the subject as manifested in the observed HAVE-BE split, and the lower auxiliary lexicalizing *v*<sub>1</sub>. So far, we have been assuming that the participle raises to *v*<sub>1</sub> in Ariellese. As we can see from the examples in (5), however, the participle is present also in the DAC. This might suggest that the structure of *v*<sub>1</sub> is more complex than we initially assumed, and is in fact a label for a more complex set of functional projections, as illustrated in (6):<sup>6</sup>

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<sup>6</sup> However, there is some evidence to suggest that the structure of *v*<sub>1</sub> might be more appropriately analyzed as a single head rather than in terms of the dual *v* structure assumed in the text. In particular, the relevant evidence comes from the variable behaviour of participle agreement in the DAC. Above in §3, we noted that in the present perfect the participle invariably agrees with a plural DP, be this the subject or the object. In the case of agreement with a plural object as in (i.a), we observed that this is licensed by *v*<sub>1</sub> which, after probing the plural object, is valued [+pl.], a feature valuation that surfaces on the participle which raises overtly to *v*<sub>1</sub>. Now, in the corresponding DAC, by contrast, participle agreement with a plural object proves optional (or, in any case, variable), witness (i.b):

- i a [v<sub>2</sub> *So* [v<sub>1</sub> *magnite*/\*-ate [v<sub>VP</sub> t<sub>magnite</sub>/\*-ate *li biscutte*]]]  
 BE.1sg. eaten.pl./sg. the biscuits  
 ‘I have eaten the biscuits’
- b [v<sub>2</sub> *So* [v<sub>1</sub> ‘ve [v<sub>VP</sub> *magnite*/-ate *li biscutte*]]]  
 BE.1sg. HAVE.past.impf. eaten.pl./sg. the biscuits  
 ‘I had eaten the biscuits’

Returning now to the DAC, we assume that  $v_2$  and  $v_1$  are in a feature-inheritance relation, such that the observed feature-spreading of the subject's  $\phi$ -features across both auxiliaries now falls out naturally (Chomsky 2005: 14; 2006: 14), with transmission of the subject's  $\phi$ -features from the phase head  $v_2$  to  $v_1$ , just in the same way that the  $\phi$ -features of plural subjects are spelt out discontinuously across auxiliary ( $v_2$ ) and (transitive/unergative) participle ( $v_1$ ) in the present perfect (cf. 3d-f). Indeed, given the proposed dual structure of the Ariellese  $v$ -system independently argued for on the basis of participle agreement, it is *a priori* predicted that any verbal head targeting  $v_1$  will potentially display agreement with  $v_2$ . and, by the same token, that Romance double auxiliary constructions such as the Ariellese DAC are only found in those varieties that also exhibit participle agreement with transitive/unergative subjects.

At this point, let us put our discussion on a more concrete footing by considering the derivation of a simple sentence like (7):

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Unlike in the present perfective example (i.a) where the participle raises overtly to  $v_1$ , if we assume a non-complex structure for  $v_1$  in the DAC,  $v_1$  will be lexicalized at PF by the lower auxiliary and hence will not be available for the participle to raise to. Consequently, although  $v_1$  probes the plural object and is valued as [+pl.], significantly this Agree relation is not directly mediated by the participle raising to  $v_1$ , but is merely transmitted by  $v_1$  to V through the inheritance mechanism (Chomsky 2005; 2006). Crucially, this distinction between raising and inheritance in the transmission of the object's number feature valuation would appear to find a direct parallel in the behaviour of participle agreement, which proves obligatory in the former case and optional in the latter.

7 *So'*        *'ve*                    *viste la casa*  
 BE.1sg. HAVE.past.impf. seen the house  
 'I had seen the house'

Following merger of the participle *viste* with its object *la casa*, the VP is subsequently merged with  $v_1$ , which simply carries the features [+past, +impf.] but no  $\phi$ -features, in the same way, according to Chomsky (2005; 2006), that T has no  $\phi$ -features but inherits its Agree feature from the phase head C. Let us assume for the moment that the past participle moves to  $v_F$ .  $v_1$  is merged with the phase head  $v_2$  that carries the as-yet unvalued  $\phi$ -features of the subject, which are valued according to the person/number feature of the subject once merged in Spec $v_1$ P and probed by  $v_2$ . These valued features then spread through feature transmission/inheritance from  $v_2$  to  $v_1$ , ultimately giving rise at PF to the discontinuous expression of the subject's  $\phi$ -features observed across both  $v$  heads. In our particular case,  $v_2$  and  $v_1$  will bear the feature bundles in (8a-b), respectively, which once sent to PF will be lexicalized as BE (namely, *so'*) and HAVE (namely, *'ve*).

- 8 a  $v_2 = [1, \text{sg.}] \Rightarrow \textit{so'}$   
 b  $v_1 = [1, \text{sg.}, \text{past}, \text{impf.}] \Rightarrow \textit{'ve}$

Now, while the surface lexicalization of  $v_2$  as BE in (8a) proves straightforward, in that an Agree relation between a 1<sup>st</sup> (or 2<sup>nd</sup>) person subject and  $v_2$  invariably surfaces as auxiliary BE in accordance with the usual person-based split (cf. discussion in §3), it remains to be explained why the same person specification inherited by  $v_1$  fails to license

BE in (8b). We suggest here that when the features [past, impf.] are present on the same head as 1<sup>st</sup> and 2<sup>nd</sup> person features, this feature bundle is spelt out at PF as HAVE in southern Italian dialects (Manzini and Savoia 2005, II: 729), overriding the usual person-based auxiliary split. This conclusion is based on the empirical observation that in those central and southern dialects reported to have person-driven auxiliary splits, such splits typically only operate in the present perfect, but not in other paradigms such the pluperfect indicative, conditional perfect and past subjunctive (v. Ledgeway 2000: 204-5; Manzini and Savoia 2005, II: 681, 729). This suggests a different spell-out outcome when the person features stand ‘alone’ in the functional head, as opposed to when they co-occur with specific tense-aspectual features. In fact, this is also the case in Ariellese where the past subjunctive/past conditional licenses HAVE with all grammatical persons, including the 1<sup>st</sup> and 2<sup>nd</sup> persons (e.g. *avesse/\*fusse viste* ‘I would have seen’, *avisse/\*fusse viste* ‘you would have seen’). Crucially, such facts demonstrate that auxiliary selection in these dialects is not simply person-sensitive, as traditionally assumed, but is also tense-aspect sensitive, insofar as an explicitly specified temporal-aspectual featural specification has an effect on the PF-lexicalization of the feature bundle present on the lower auxiliary head.<sup>7</sup>

## 5. Conclusion

In the preceding discussion we have demonstrated how the DAC provides considerable empirical and theoretical support for the view that Ariellese is characterized by a dual *v* structure, as independently maintained on the basis of participle agreement facts by

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<sup>7</sup> We assume that in temporal-aspectual terms the present perfect represents the unspecified, default value, hence unable to override the person-driven auxiliary split.

D'Alessandro and Roberts (2008), which in this particular instance surfaces in the dual finite auxiliary structure of the DAC. At the same time, we have drawn on the Ariellese DAC to adduce substantial evidence for a dynamic model of feature bundling on functional heads, according to which there is no one-to-one correspondence between bundles of features and particular functional heads, as witnessed most acutely in the discontinuous expression of the subject's  $\phi$ -features across both finite auxiliaries as a reflex of a process of feature inheritance/transmission from the phase head  $v_2$  to  $v_1$ -V. By the same token, these fluid instantiations of feature bundles across different functional heads were shown to have differing PF realizations, as directly manifested in the asymmetric lexicalization of the higher and lower auxiliaries in the DAC.