# ADVERBIAL AGREEMENT: PHI FEATURES, NOMINALIZATIONS, AND FRAGMENT ANSWERS

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Abstract. We investigate adverbial agreement in Sandəmarkesə (S. Marco in Lamis, Apulia) proposing phase-bound, local agreement relations, reducible to coordination, as in past and absolute participial constructions, suggesting a copulaless analysis where arguments are subjects in a small clause. With disjunct nominals with matching  $\varphi$ -features, the adverb agrees separately with each part in the set, otherwise resulting in 'non-agreeing' forms, which we test also with negative polarity items (nifun-, 'nobody' and nentə, 'nothing'). With fragment answers, the negation scopes over adverbs agreeing with the two proposed topics: matching of the  $\varphi$ -features of both nouns values the negative operator with the same features. In fronted adverbs, agreement occurs when the question contains overt coordinated arguments, elements continuing a chain, and if coordinated arguments have matching  $\varphi$ -features. In agreement in topical contexts with fronted adverbs, agreement occurs with the aboutness-shift topic closely preceding them, rather than with the embedded direct object.

**Keywords:** adverb agreement, nominalizations, phi features, Italo-Romance

#### 1. INTRODUCTION

When discussing Romance manner adverbs, the -ment(e) (e.g., it. sfortunata-mente, 'unluckily' fr. malheureuse-ment, 'unluckily') type often comes to mind. However, while -ment(e) is undoubtedly the most common form for manner adverbs in major Romance languages, another way of realizing adverbial modification exists, and namely through adjectival modifiers. In Southern Italo-Romance languages, for example, adjectival adverbials tend to be the norm, with -ment(e) adverbials being less productive and usually restricted to precise positions (for example outside of vP, see also Burroni et al. 2016). Conversely, Romance languages like Italian are -ment(e) dominant but do make use of adjectival adverbials ((1a) from Antrim 1994 in Ledgeway 2011)<sup>2</sup>.

(1) a. Maria parla svelt-o/svelt-a Maria speaks quick-M.SG/quick-F.SG 'Maria speaks quickly'

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 $<sup>^2</sup>$  A discussion on this divergence within Romance is outside the scope of this paper but do see Hummel (2017).

b.	I bambin-i	parlano	svelt-o/svelt-i	
	DEF-M.PL kid-M.PL	speak	quick-M.SG/quick-M.PL	
	'the kids speak quickly'			
c.	Il parlare	è	svelt-o	
	DEF-M.SG speak-INF	is	quick-M.SG	
	'the speaking is quick'			

As in Italian, in this Apulian language<sup>3</sup> adjectival adverbials are simply adjectival modifiers with an adverbial function, and they inflect as adjectives usually do.

(2)	a.	l-i	məninn-ə	parl-ə	nə	mmu∬-ə	
		DEF-PL	kids(M)-PL	speak	-3.PL	slow(M)-PL	
		'the kid	s speak slowly'	_			
	b.	l-i	mənenn-ə	parl-ə	nə	mmo∬-ə	
		DEF-PL	kids(F)-PL	speak	-3.PL	slow(F)-PL	
		'the kids speak slowly'					
	a'.	l-i	mənii	nn-ə	'sɔ	mmu∬-ə	
		DEF-PL	kids(1	M)-PL	are	slow(M)-PL	
		'the kid	s are slow'				
	b'.	l-i	mənenn-ə	'sɔ	mmo	Ĵ-ə	
		DEF-PL	kids(F)-PL	are	slow(I	F)-PL	
		'the kid	s are slow'				

The occurrence of adjectives in adverbial function is not unique to Romance. Just to name a few cases, adverbial adjectives can be found in Semitic (Arabic in (3), Fassi Fehri 1998: 11) and South-Volta (Edo – or Benin in (4), Baker 2003: 232).

- (3) ?a-Srifu l-jawaab-a jayyid-an I-know DEF-answer-ACC perfect-ACC 'I perfectly know the answer'
- (4) Òzó kpèé èmà mòsèmòsè Ozo play drum beautiful 'Ozo played the drum beautifully'

Adverbs in Arabic agree in case as in (5), where they carry the structural case of the object of a transitive verb (Fassi Fehri 1998: 11).

(5)	a.	forgot	l-rajul-u DEF-man-NOM n forgot his Lord o	rabb-a-hu lord-ACC-his completely'	ṭamaam-an completeness-ACC
	b.	nasiya	l-rajul-u	rabb-a-hu	l-baariħat-a
		forgot	DEF-man-NOM	lord-ACC-his	DEF-yesterday-ACC
		'the ma	n forgot his Lord	yesterday'	
	c.	?akala	r-rajul-u	l-tuffaaħat-a	bi-sur\at-in

<sup>&</sup>lt;sup>3</sup> All Apulian data in this paper are from Sandəmarkesə, spoken in San Marco in Lamis (Gargano Apulian).

ate DEF-man-NOM DEF-apple-ACC with-rapidity-GEN 'the man rapidly ate the apple'

d. ?a-Srifu l-jawaab-a jayyid-an I-know DEF-answer-ACC perfect-ACC 'I perfectly know the answer'

The only example where the adverb does not agree in case with the transitive object is in (5c). However, this is so because in Arabic, nouns dominated by prepositions surface in the genitive case. Case stacking is expected given that adverbial semantics is realized by adjectives. What we have in (6) is in fact the same agreement pattern that we find with adjectival modification (Fassi Fehri 1999: 107).

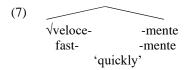
- (6) a. l-kitab-u l-?axḍar-u ş-ṣaġiir-u
  DEF-book-NOM DEF-green-NOM DEF-small-NOM
  'the small green book'
  - b. šaay-u-n şiiniiy-u-n ?axḍar-u jayyid-u-n tea-NOM-NUN chinese-NOM-NUN green-NOM excellent-NOM-NUN 'an excellent Chinese green tea'

Ledgeway (2011, 2017) suggests that in Southern Italo-Romance, adverbial inflection is strictly correlated to an intransitivity split, thus resembling the mechanism behind past participle agreement in other Romance languages. In this paper, we will focus on Apulian inflecting adverbials specifically, and we will propose that the inflecting adverb sits within a Small Clause with the argument it modifies. We will see in fact that in its unmarked linearization Apulian adverbial phrases closely resemble absolute participial constructions and raising small clauses, especially with regards to local agreement relations. In doing so, we will adopt an analysis developed for copulas in Moro (1998), in which verbal arguments are subjects of a predication within a small clause, deeply embedded within VP. The gist behind this analysis follows from a reasoning that reduces adjectival modification to copular predication (and coordination – see Higginbotham 1985). In this sense, what we will suggest is a 'zero copula' (or copulaless) clause; That this is possible is shown by the existence of zero copulas in natural languages. Subjects within the SC include external and internal arguments, and nominalizations of events. The latter point in particular implies that there are no 'non-agreeing' forms (see also Ledgeway 2017). These will be shown to be context-free in that they are predications about events. The linking element (the copula itself) can be dispensed for, in that its linking function is carried by local agreement relations within the small clause. In languages such as Russian by instance, subject-predicate agreement correlates negatively with the realization of a linking element. We will show that sometimes, a 'non-agreeing' form is the only available option. Agreement in fronted adverbs (hence a different context from in-situ adverbs) requires an antecedent to take place. In order for a chain to be created, inflecting morphology in the chain has to match every part of the set. For example, a question like 'What did you study well, history or mathematics?' can have a (fragment) answer like 'well (I've studied) none'

(meaning 'I've studied none of them well'). Both the adverb and the negation will have scope over each part in the set (history; mathematics). We will see that if the elements have different phi features from each other, agreement on the adverb and on the negation fails to take place. We will suggest that this is so because both the adverb and the negation have scope over each (distributive) part of the set (partitive). With possible antecedents with matching phi features, in fact, the adverb actually agrees with each part in the set, separately and cyclically (for example, if both antecedents are F.SG, the chain will bear F.SG morphology, not F.PL morphology) until the set of disjuncts is exhausted. Eventually if all parts contain the same set of features this will be signalled by matching the feature set on elements continuing a chain (adverbs or negative polarity items in our case). If the two possible antecedents have mismatching phi features, the 'non-agreeing' form will be realized instead. That this is so is also shown by the realization of negative polarity items like nifun- ('nobody'/'none') and nenta ('nothing'). With possible antecedents with matching phi features, the negative polarity item will be the inflecting ni/un-, which is able to continue a chain. With a featural mismatch instead, the negative polarity item will be the non-inflecting nenta. This paper is structured as follows. §2 introduces adverbial phrases in Southern Italo-Romance and introduces the Apulian data. §3 deals with clause analysis, agreement, phases, featural, and information structure phenomena. Finally, §5 concludes.

#### 2. ROMANCE AND SOUTHERN ITALO-ROMANCE MANNER ADVERBS

As is widely known, major Romance languages employ elements from a closed class to express adverbial semantics. Such adverbs include -ment(e) morphology; in their usual make up, adjectives constitute the root.4



In Southern Italo-Romance the -ment(e) type is quite rare, and, even when present it can carry agreement morphology (8c) and can also be used as an adjective (8d).<sup>5</sup> The fact that a -mente adverb can carry inflectional morphology and occur in vP is probably due to the fact that it represents a different element from non-inflecting, higher, -mente adverbs, which do not display agreement (see also Burroni et al. 2016).

<sup>&</sup>lt;sup>4</sup> The Romance -ment(e) type is in fact a crystallized AdjP in the ablative case which originates in the Latin configuration in (i) (Ov. Tr. I. I.87, Bauer 2010: 342), akin to the Arabic configuration in (5c).

cave timid-a circumspice ment-e beware and timid-ABL.F.SG look.around mind-ABL.F.SG 'be careful and look around you timidly' (lit. 'with a timid mind')

<sup>&</sup>lt;sup>5</sup> See also Hummel (2017) on a similar behavior in English.

- (8) a. l-a skɔl-a 't-ɛ 'gːjut-a 'bːɔn-a
  DEF-F.SGschool-F.SG oblcl.2.SG-is.3.SG went-F.SG good(F)-F.SG
  'school went nicely for you'
  - b. l-a savəz-a 'jɛ 'b:ən-a
    DEF-F.SGsauce-F.SG is good(F)-F.SG
    'the sauce is good'
  - c. 'jɛ r:es-a malament-a is wake.up.PST-F.SG bad-F.SG 'she got out of the wrong side of bed'
  - d. n-a krəstjan-a malament-a INDEF-F.SG person-F.SG bad-F.SG 'a bad person'
  - e. seriamentə/\*seriament-a le trwat-ə for.real /\*for.real-F.SG obj.cl.have.1.SG found 'I've found it for real'

While major Romance languages make a more limited use of inflecting adverbs, they do inflect past participles according to argument structure. Ledgeway (2011) proposes that Southern Italo-Romance adverbs agree in fact according to the same mechanism that is found within participle agreement in, say, Italian. I.e., an intransitivity split, which we exemplify in the following examples. In Old Italian (9a)<sup>6</sup> especially, participles could agree with the internal argument of a verb. This is an option that is lost in contemporary Italian (9b), except for cases in which a resumptive clitic is present (9c).

- (9) a. vi ho scritt-a letter-a obl.cl.2PL have-1.SG written-F.SG letter-F.SG 'I have written a letter to you'
  - b. vi ho scritt-o una lettera
    obl.cl.2PL have-1.SG written INDEF letter-F.SG
    'I have written a letter to you'
  - c. una lettera l'ho scritt-a INDEF letter-F.SG obj.cl.2PL.have-1.SG written 'A letter, I wrote it'

When it comes to intransitive verbs, Italian unergatives allow for participle agreement (10b), while unaccusatives don't (10a).

- (10) a. sono arrivat-e l-e ragazz-e /\*arrivat-o are arrived-F.PL DEF-F.PL girls-F.PL/\*arrived-M.SG 'the girls have arrived'
  - b. l-e ragazz-e hanno dormit-o /\*dormit-e DEF-F.PL girls-F.PL have slept-M.SG/\*slept-F.SG 'the girls have slept'

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<sup>&</sup>lt;sup>6</sup> From Raffaello Borghini's 'L'amante furioso', 1597.

With respect to accusatives, we do find that Apulian adverbs agree with the direct object, as in Old Italian participles in transitive clauses. Note that these configurations also allow for the non-agreeing form, 'b:on-a, as also noted in Ledgeway's work. This will be a central point in the discussion in the following paragraphs.

(11)	a.	ˈskriv-ə-l-a	'b:on-a	(also='b:on-ə)
		write.IMP-2.SG-do.cl-FSG	good(F)-F.SG <sup>7</sup>	
		'write it well'		
	a'.	ˈskriv-ə-l-i	'b:on-ə	(also='b:on-ə)
		write.IMP-2.SG-do.cl-F.PL	good(F)-F.PL	
		'write them well'		
	b.	ˈskriv-ə-l-u	ˈbːon-ə	(also='b:on-ə)
		write.IMP-2.SG-do.cl-M.SG	good(M)-M.SG	
		'write it well'		
	b'.	ˈskriv-ə-l-i	ˈbːon-ə	(also='b:on-ə)
		write.IMP-2.SG-do.cl-PL	good(M)-PL	
		'write them well'	2 ( )	

As noted by Ledgeway, adverbial agreement in Italo-Romance seems to mirror participle agreement in languages like Italian, with the addendum that in this Apulian variety it is possible to have inflecting adverbs in transitive clauses even without a clitic. In this sense, this language sides with Old Italian, where participles could agree with direct object nominals.

As expected in Romance, internal arguments can be also realized as a fully-fledged DPs in the rightmost periphery of the sentence, yielding [(Sj) Oi V(Adv) Oi].

(13) le scrit:-a b:on-a l-a kart-a cl.have.1.SG written-F.SG good(F)-F.SG DEF-F.SG letter-F.SG 'As for the letter, I wrote it well'

When it comes to unaccusatives, adverbs can agree with the subject.

(14) a. a 's:it:-ə-tə b:on-a (also='b:on-ə)
sit-IMP-2.SG-cl.2.SG good(F)-F.SG
'sit properly'
b. a 's:it:-ə-tə 'b:on-ə

<sup>7</sup> Metaphony is a phonological process (see D'Alessandro & van Oostendorp 2014). However, its presence is necessary for the interpretation of gender and number features, so that we can say that it creates a type of non-concatenative morphology (Russo 2007), or that it can be subsumed under non-

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concatenative effects (Svenonius 2011).

	sit-IMP-2.SG-cl.2.SG 'sit properly'	good(M)-PL	
c.	aˈʃːiŋ-ə ˈ climb.down.IMP-2.SG 'climb down carefully'	b:on-a good(F)-F.SG	(also='b:on-ə)
d.	aˈʃːiɲ-ə climb.down.IMP-2.SG 'climb down carefully'	'b:on-ə good(M)-M.SG	

Also in this case so do Italian past participles (*si è sedut-a bene*, 'she sat properly') and the same happens in the corresponding Apulian configuration (*en:a as:a t:at-a 'b:an-a*). Within unergatives, adverbs agree with the subject.

In this case, nor the Italian nor the Apulian past participle agree with the external argument, ha parlat-o bene; a p:ar'lat-o 'b:ɔn-a (both 's/he spoke properly'), but the adverb 'b:ɔn-a does. According to Ledgeway's work, however, these instances are better understood as unaccusatives with undergoer subjects expressing achievements, rather than unergatives proper.

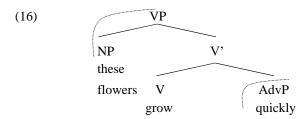
# 3. CLAUSE ANALYSIS AND AGREEMENT

We will propose that inflecting adverbs, either when carrying 'default' agreement morphology or when inflected, sit in a small clause with either the subject, the object, or a nominalization of the event. This ensures that the adverbs can agree in gender with the addressee even in cases in which such features are not explicitly given. We will employ a structure for copulas as envisaged in Moro (1998) to explain agreement patterns in inflecting adverbials. In doing so, we are able to explain how agreement arises even in imperatives, where an explicit head carrying the relevant gender morphology is not given.

# 3.1. Adverbs, scope, and agreement morphology

We want to build on what Condoravdi (1989) and Larson (2018) had in mind for middles requiring adverbs. In brief, in the following tree  $\Gamma$  corresponds to a generic

quantifier; the *restrictive clause* constraints the quantification of the generic event (the growing of the flowers); *the nuclear scope* corresponds to the quantificational scope, and "it constitutes the main predicate semantically. It supplies what the sentence is fundamentally asserting" (Larson 2018: 9).



## Quant Restrictive Clause Nuclear Scope

 $\Gamma$ e [Con(e) & growing(f, e)] (quick(e))<sup>8</sup>

Now, in a language like Apulian, this would be expressed as in the following example.

So, in theory, as in the other cases, it is possible to have an agreeing and a non-agreeing form of the adjectival adverbial. b:on-a is what we call a 'non-agreeing form'. A couple of words on the language's nominal morphology are then due. The -a ending is found in both feminine and masculine nouns. But gender morphology in this language is both concatenative (-a) and not concatenative. The latter point in particular means that gender can be marked via higher/lower vowel on the tonic vowel of the root (a result of metaphony), so that -a itself can mean either masculine singular, masculine plural, or feminine plural, depending on the type of vowel on the root. A number of nouns stemming from Latin third declension nouns  $(vox \rightarrow votf - a)$ , 'voice';  $lux \rightarrow 'lutf - a$ , 'light';  $pulex \rightarrow 'putf - a$ , 'flea') are feminine nouns ending in -a but show no higher/lower alternation on the tonic vowel in the root and appear in the same form regardless of whether they are singular or plural. The schwa ending is then basically underspecified with regards to either gender or number. If coupled with a metaphonic root it yields M.PL (18a). If coupled with a non-metaphonic root it yields either M.SG or M.PL (18b).

<sup>&</sup>lt;sup>8</sup> "Generally, for contextually relevant events involving the growing of these flowers, those growings are quick."

We should make clear that when we refer to 'metaphonic root' we mean metaphony In relation to its singular form. But the process can distinguish between gendered variants of the same noun. The -a ending realizes either feminine singular nouns, or plural masculine (19b) or feminine nouns (19c), respectively.

With respect to (19a), it should be noted that plural-yielding metaphony is only applied to the masculine forms; when it comes to the feminine forms, however, the singular form has an -a ending, which means that in the absence of the  $\sqrt{2}+-a$  combination, the interpretation is plural. In this sense, it can be suggested that -a works as an elsewhere morpheme. This can be probably derived from the fact that -a is the result of the collapse of several Latin nominal endings, as -a or -a which in languages like Italian, are associated with feminine plural or masculine plural morphology, respectively. A root containing  $\sqrt{-a}$  will, instead, always yield a masculine interpretation (contrasts with  $\sqrt{-a}$ ).

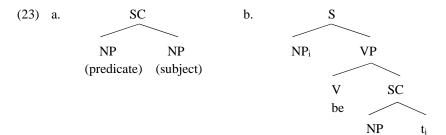
(20) a. 
$$\sqrt{\text{'b:on- a}} / \sqrt{\text{'b:on- a}}$$
 
$$\operatorname{good}(M)\text{-SG good}(F)\text{-PL}$$
 
$$\operatorname{good}(M)\text{-PL}$$
 b. 
$$\sqrt{\text{'l:on:- a}} / \sqrt{\text{'l:on:- a}}$$
 
$$\operatorname{long}(M)\text{-SG long}(F)\text{-PL}$$
 
$$\operatorname{long}(M)\text{-PL}$$
 c. 
$$\sqrt{\text{si'p:or- a}} / \sqrt{\text{si'p:or- a}}$$
 
$$\operatorname{man}(M)\text{-SG woman}(F)\text{-PL}$$

Now let's go back to (17), which we repeat here as (21) in the 'non-agreeing' form.

We have established that a root containing -o- is always interpreted as masculine. We have also established that -o realizes several number and gender features to the point that it's possible to say that -o is an elsewhere morpheme and that it has no gender or number features per se. However, the presence of -o- in the root of the adverbial adjectival in (21) signals that this is formally a masculine element. Larson describes the middle sentence in (16) as "Generally, for contextually relevant events involving the growing of these flowers, those growings are quick." So what we have in (16) is there is an event in which scissors cut, and the cutting is good, or and it is good for a cutting, 9 which we express as in (22), where we follow Higginbotham (1985) in doing so.

(22) 
$$(\exists e)$$
 cut(scissors,  $e$ ) and good( $e$ ,  $A$ )

And good (e,A) would be part of Larson's nuclear scope. Note that (22) also contains A, which is the subject (the cutting) of the predication made by the adverbial adjective. When verbs or events are nominalized in this language, they usually carry masculine singular inflection on D (-u); so, this would correlate well with the gender features realized on b:on-a (remember that -o-+-a yields a masculine interpretation). We can express this within a syntactic tree by hypothesizing a structure of the type suggested in Moro (1998) for copular phrases. In short, a Small Clause contains the predicate and the subject of the predication (23a). In the following structure (23b), this is represented as  $t_i$  given that it is thought to rise to its subject position.

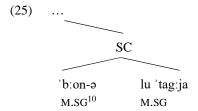


Within this small clause, A as described in (22) would be the subject ( $t_i$ ). This means that the predicate would contain a silent realization of the nominalized verb (the cutting). As anticipated, all nominalizations of verbs yield masculine singular inflectional morphology in this language.

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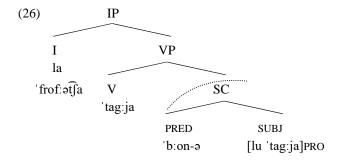
<sup>&</sup>lt;sup>9</sup> We also interpret them as secondary predicates; see Landau (2010: 359) for discussion.

So what we see is that the predicate and the subject agree in gender and number within the small clause.



What we have here is then an agreement relation taking place within a local domain, as in past participle agreement in Italian (see also D'Alessandro and Roberts 2008). Interestingly in fact, adverbial modification in Southern Italo-Romance can also be achieved via past participial forms (see Silvestri 2017 on Calabrian, by instance), and e.g., this Apulian variety, *sta skrit:-a zigtjat-a* (lit. 'it is written-F.SG scribbled-F.SG'), which confirms a general correlation between participles and adverbial or adjectival modification.

If we assume that phases are propositional (see Chomsky 2001), we can couple the fact that the small clause is a phase with the fact that a sentence like (21) is built of two propositions, and namely, "The scissors cut. The cutting is good". So there is no need for the subject to move out of the SC as in (23b), since IP is a separate proposition, and has its own subject (the nominalization of the event).



 $<sup>^{10}</sup>$  Or, also compatible with M.SG, since the - $\vartheta$  ending also yields a plural interpretation, as we described.

<sup>&</sup>lt;sup>11</sup> As D'Alessandro and Roberts (2008) note, there is evidence that Italian participial small clauses also seem to contain external arguments, as evident from the presence of -si.

ii. Una volta vestit-a-si, Maria fu pront-a per la serata.

A time dressed-F.SG-self Maria was ready-F.SG for the evening 'once dressed, Maria was ready for the evening.'

M.SG M.SG

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Note that we assume, as in Baker (2003) that R-expressions are the only lexical category to have indexes, and that R-expressions carry 3d person features with them, as in Ackema and Neeleman (2019). As in Kratzer (2009), we assume that at least in this language gender features align with third person features, and that as descriptive features, such meanings are recruited "from a pool of basic concepts" such as the eating, the cutting, other deverbal nominalizations, and verbal arguments, in our case. The presence of this basic concept as the subject of a SC ensures the realization of agreement on the adverb even in cases such as imperatives (15), where the adverb is fully inflected even though the noun is not pronounced anywhere (the following list comes from Kratzer 2009: 221).

- (27) A selection of descriptive features
  - a.  $[[male]N]^g$ ,  $c = \lambda x$ . x is one or more males.
  - b.  $[[female]N]^g$ ,  $c = \lambda x$ . x is one or more females.
  - c.  $[[thing]N]^g$ ,  $c = \lambda x$ . x is one or more things.

Of course, the presence of masculine or feminine morphology does not directly imply the presence of males or females (see Acquaviva 2020), or that the morphological exponents of (c) only apply to things. But we take third-person elements to contain a list of descriptive features that allow to build a basic concept of the expression. As Kratzer, we take second-person pronouns in languages such as English (or Apulian in our case) to be minimally built per se, and to contain a minimal set of features such as for example ADDRESSEE. We also assume that addressees are then associated with a choice of basic concepts, which then yields *tu* ('you'), for example. Harley and Ritter (2002), for instance, hypothesize e featural geometry that makes a sharp distinction between 1/2 and 3d person pronouns. In particular, they note that the former pertain to discourse roles, and are then variable. The third person, instead, is fixed in that it represents the individuation of the R-expression. In this geometry, a third-person pronoun "involves only elaboration of the Individuation node" (Harley and Ritter 2002: 509). Second person pronouns, instead, involve the elaboration of the individuation and the participant node. The Participant Node hosts speaker and addressee. It runs parallel to the Individuation node, which hosts number and gender features.

iii. a. lo scemo Italian
DEF idiot

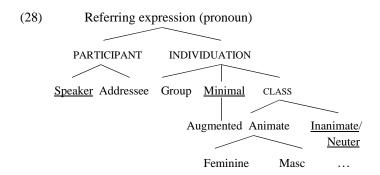
'the idiot' (=3d person)

b. lo scemo [che sei tu]

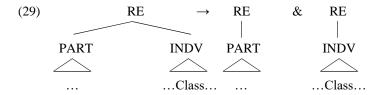
DEF idiot [COMP are you]

'the idiot that you are' (you=2nd person)

<sup>&</sup>lt;sup>12</sup> This couples with the fact that as Ackema and Neeleman (2019) suggest, R-expressions are third-person expressions, and that to realize other persons it is necessary to add additional syntactic layers.



In this system, then, a second person pronoun can contain both the participant and the individuation node (Harley and Ritter 2002: 509).



This system will be important when discussing the variant with adverbials agreeing with the subject that we find in (21).

Note that Kratzer's list in (27) is neutral with respect to number features. As for the preceding discussion pertaining nominalizations, we take it to be singular. As we have seen, 'b:on-a can be interpreted as either masculine singular, or masculine plural. But we can take a look at adjectival adverbials in another Romance language, and namely Italian. As Ledgeway (2011) notes, in fact, while in Italian manner adverbials are dominantly of the -mente type, there exists a rarer form, parallel to the one found in Apulian. Also in this case, the manner adverb is an inflecting adjective ((30) from Antrim 1994 in Ledgeway 2011); here, the 'non-agreeing' form (30a-b) is in singular. As previously noted also for Apulian, here too deverbal nouns carry masculine singular morphology on their determiners, and as a consequence so does the adverbial adjective (30c).

- (30) a. Maria parla svelt-o /svelt-a

  Maria speaks quick-M.SG/quick-F.SG

  'Maria speaks quickly'
  - b. I bambin-i parlano svelt-o /svelt-i

    DEF-M.PL kid-M.PL speak quick-M.SG/quick-M.PL

    'the kids speak quickly'
  - c. Il parlare è svelt-o

    DEF-M.SG speak-INF is quick-M.SG

    'the speaking is quick'

Accordingly, we then take b:on-a to be singular like the deverbal nominal it modifies. As we anticipated, (21) also appears in a variant in which the adverb agrees with the subject.

Here, the subject of the adverbial predication (which also happens to be the subject of the whole sentence) is an overt nominal, sitting in a SC with the agreeing adverb, and as a consequence, agreement takes place in its local domain. However, a subject might also be realized through a 2.SG pronoun with no gender morphology. The pronoun might also be unpronounced (pro). This is where the featural geometry put in place by Harley and Ritter comes in handy. Ledgeway (2011) suggests that sentences with adverbs agreeing with the subject (like the one in 30a or 2a-b) amount to saying that "x is a swift talker"; this could also be paraphrased as "x is swift at talking". In this case, then, the subject in the SC is the same as the subject in IP ("x talks & x is a swift talker"), so that the adverbial adjective agrees with the subject of the predication. This is also the case with configurations that have the 2nd person pronoun tu as the subject, or with pro-drop.

Given the inflected adverbial forms, it is clear that the second person contains an elaboration of the participant and the individuation node, as Harley & Ritter suggest. Coupling the subject within the SC with an ADDRESSEE feature turns the 3d person R-expression into a pronoun addressing the participant. So even though the pronoun makes no morphological gender distinction, it is clearly bound to an R-expression which contains the  $\phi$ -features realized on the adverbial adjective.

As also Larson points out, their representation in (16) can be extended well beyond middles and can be applied to configurations with different argumental grids that might lack the generic quantificational scope expressed by  $\Gamma e$ . In particular, we have seen that in Apulian, adverbs either agree with intransitive subjects, or with transitive objects.

sung' vs. jess-a a k:antat-a, 'she has sung').

<sup>&</sup>lt;sup>13</sup> In this case, we take the verbal ending -*θ* to only contain a SINGULAR feature. 1st and 2nd person in this case are in fact identical: *ijθ kant-θ* ('I sing'); *tu kant-θ* ('you sing'). The rest of the paradigm includes -*a* (3sg), -*amθ* (1PL), -*atθ* (2PL), -*θnθ* (3PL). No phono-syntactic doubling distinguishes 1st from 2nd persons, which is instead what we find with auxiliary compound verbs, where the 2nd person is distinguished from the 3d person via phono-syntactic doubling (*tu a kantat-θ*, 'you have

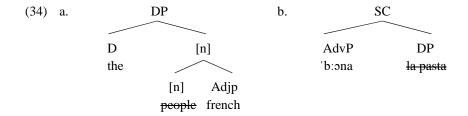
Also in this case, we hypothesize a small clause in which the direct object is the subject of the predication it contains; the predication being of course the adverbial adjective. As Larson notes, the nuclear scope containing the adverbial phrase contains what the sentence is "fundamentally asserting" (Larson 2018: 9). In a transitive configuration as the following one, we are saying that "Mario cooked the pasta, and the pasta is well-cooked" or, "Mario cooked a well-cooked pasta".

(33) Mario la k:ot:a 'b:on-a (l-a pasta)

Mario cl.obj-F.SG.has cooked-F.SG good(F)-F.SG (DEF-F.SG pasta)

'Mario cooked it (the pasta) well'

In short, the content of SC with no overt nominals would be quite similar to what proposed for [n] in Acquaviva (2007) and Borer and Roy (2010) for phrases such as the English, the French, etc., save for the position of N.



The adverb and the nominal would be in a type of copula-less predicative phrase; copula-less phrases occur often in natural languages. Take Arabic by instance, where copulas can and sometimes must be zero, as in (35) (from Bahloul 1993: 211).

(35) al-bayt-u kabiir-un
DEF-house-NOM big-NOM
'the house is big'

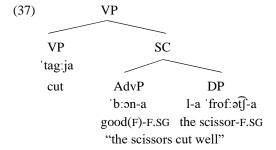
The head and the predicative adjective also agree in case; we take this form of agreement to take place in a local domain (see again D'Alessandro and Roberts (2008) for (non)agreeing past participles in Italian). Eventually a basic operation merging subject and predicate with no linking element is the simplest copular structure we can hypothesize. Agreement (or concord) is then a hierarchical and phasal marker. In Russian for example, copula-less structures allow for subject-predicate case agreement (36a) ((36) from Russian, Bailyn 2012: 176).<sup>14</sup>

(36) a. Ivan durak /\*durak-om Ivan-NOM fool-NOM/\*fool-INSTR

<sup>&</sup>lt;sup>14</sup> Examples retain original glosses.

'Ivan is a fool'
b. Ivan kažetsja glup-ym /\*glup
Ivan-NOM seems stupid-INSTR-/stupid-NOM
'Ivan seems stupid'

Conversely, when predication takes place via a linking element (*kažetsja*) the instrumental is the obligatory form (and hence there is no case agreement as a consequence), which, according to Bailyn is 'the unmarked, standard form of case on argumental adjectival secondary-predicates' (Bailyn 2012: 177). As Moro (1998) notes, having a SC with a post-adjectival noun allows post-verbal subjects (or objects, as 34b) to be realized directly inside the SC.



Remember that within the SC any noun is a subject, regardless of its structural case, precisely because it is the subject of a predication.

To sum up, transitive clauses only allow adverbial agreement with the presence of an object clitic or an overt nominal. This shows that agreement takes place only when an internal argument is realized, either as a clitic or as an overt nominal. Perhaps this has to do with what Ledgeway (2011) suggests, and namely that inflected adverbials in transitive clauses are resultative in nature and thus require a theme to be overtly realized.

With this, we are not ruling out the possibility that implicit arguments might be projected; however, it is clear that an Individuation Node of a R-Expression, complete with the relevant  $\varphi$ -features, must be involved in order to realize the agreeing inflectional morphology on the adverb. In the case of an implicit internal argument like in (33a), in fact, an unbound variable on the object means that its  $\varphi$ -features cannot be spelled out. In short,

this language does not allow the realization of inflecting secondary predicates with implicit, arbitrary (internal) arguments (and see Landau 2010 for discussion). If an internal argument is not realized either as a full nominal or as a clitic, any agreement morphology on the adverb is interpreted as referring to an external argument. The fact that an Individuation Node is required in order to have an inflecting adverb is borne out by the behavior of clauses with valency reduction processes. Take anticausatives. Anticausatives in Romance generally express the non-realization of an agent through elements such as si (Italian), on (French), omu (Sardinian), or nome (Abruzzese) (see D'Alessandro and Alexiadou 2006). In this Apulian language, the Latin s morphed into  $\widehat{tf}$ -, yielding  $\widehat{tf}$ . Anticausatives do not allow inflecting adverbs, confirming what predicted in relation to the necessity of an Individuation Node. The subject reference in anticausatives is in fact unbound, arbitrary, just like the implicit internal arguments we saw previously.

(39) Îsə skriv-ə b:on-ə kwa /\*b:on-a /\*b:on-ə sbj.cl write-SG good(M)-M.SG here/\*good(F)-F.SG/\*good(F)-PL 'one writes well here'

Conversely, as we anticipated, an overt agent can trigger inflection on the adverb.

(40)a. Maria skriv-ə b:on-a /b:on-ə Maria(F) good(F)-F.SG/good(M)-M.SG write-SG 'Maria writes well' b. skriv-ə b:on-a Maria /b:on-ə write-SG good(F)-F.SG Maria(F)/good(M)-M.SG 'Maria writes well'

Now, with respect to the necessity of an Individuation Node, we will spend a couple of words on Information Structure properties in the Apulian inflecting adverb, which will be the topic of the next section.

#### 3.2. Outside of vP: continuing topics

At the beginning of this paper, we have mentioned the fact that agreeing adverbs tend to appear within vP. One case in which they don't is when they appear as dislocated constituents. Generally, this is done to realize Information Structure-related properties such as topics. There is not just a single way to define topics. Here, we will say that a topic is knowledge shared in the *Common Ground* of two or more interlocutors (see Krifka 2008). This also includes the notion of *Common Ground Management* which refers to the continuous update that the CG undergoes, for example by introducing new topics (the *aboutness-shift topics*, Frascarelli 2007; Bianchi and Frascarelli 2010). Two types of topics are relevant for the present discussion, and namely the aforementioned *aboutness-shift topics* and *continuing topics*. As mentioned, the first introduce new topics, while the latter

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continue newly introduced topics. Phenomena correlating topichood and agreement which are typical of Southern Italo-Romance (other than the ones shared with other Romance languages) include, among others, finite verbs agreeing in gender with topics, as in Ripano, a Upper Southern Italo-Romance language (Paciaroni 2017); *double subjects*, a topic-marking strategy (see Ledgeway 2009 for Neapolitan; Massaro 2015 for Apulian), and, given the relation between inflecting categories and topics, we expect Apulian inflecting adverbs to interact with Information Structure-related properties. This is what we find. In a conversation, a question like 'what did you read best?' is given an answer with focalized content.

(41)a. ke ta lett-ə meg:jə? what cl.OBL.2SG.have.2.SG read-ə best 'what did you read best?' b. b:on-ə me lett-ə matematika /\*b:on-a good-ə 1.sg.have.1.sg read-a mathematics-F.SG)/\*good(F)-F.SG

In this case, an agreeing form of the adverb is forbidden. But when matematika is included in the question as a new topic, the answer includes an agreeing form.

'I've studied mathematics best'

(42) a. storia o matematika ke lett-ə meg:jə? history-F.SG or mathematics-F.SG what 2.SG.have.2.SG read-a best 'History or mathematics, what did you read best?' b. b:on-a me lett-ə storia good(F)-F.SG 1.SG.have.1.SG read-ə history-F.SG 'I've studied history best'

In this case then, storia in (42a) is a new topic. As such, the adverb is allowed to agree with it, while in the case of *matematika*, the adverb remains in its invariable form. *Matematika* would be a newly introduced topic, but we see that agreement does not take place. This also means that in fronted adverbs, agreement takes place with the aboutness-shift topic closely preceding them (see Frascarelli 2007)<sup>15</sup>, rather than with the embedded direct object (*matematika*, which is introduced in the discourse in the answer in (41b)), as evident from failed agreement on the adverb (contrasts with (42b)).

Ke, as the Italian counterpart che, contains an almost unbound variable; an exception being a [-HUMAN] requirement ([+HUMAN] yields k:j(a) in Apulian and chi in Italian, both meaning 'who'). As for the rest, it contains no Individuation Node, nor number or gender

<sup>15</sup> In her work, Frascarelli deals with subjects, while what we have here is DOs. However, the point that the fronted adverb needs a preceding topic to be inflected still stands.

features. The adverb eventually looks for a preceding topic to agree with, but finds *ke* in place of a topic, and thus, with no available variable, inflection on the adverb fails to be realized. Conversely, when a new topic is introduced in the question, inflection shows up on the adverb.

As we said, in the case of (44), agreement is instead possible because of the presence of *storia* in the question. Another example comes from the behavior of *wh*- elements like *kwal:u*, 'which'. Unlike the Italian counterpart, quale, *kwal:u* inflects both for number and gender (Merchant 2006 for other languages), <sup>16</sup> while *quale* only does for number. If we take (41a), and substitute *ke* with *kwal:*-, we obtain the possibility of an inflected fronted adverb.

(45)	a.	kwal:-a which-F.SG 'Which did you	ta cl.OBL.2.SG.have.2.SG study best?'	lett-ə read-ə	meg:jə? best
	b.	b:on-a good(F)-F.SG 'I've studied his	me cl.OBL.1.SG.have.1.SG tory best'	lett-ə s read-ə l	storia nistory-F.SG

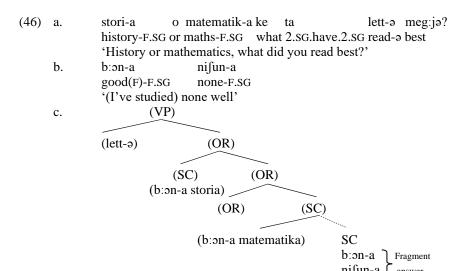
Possibly, *kwal:*- contains the phi features of a continuing topic, so that the adverb agrees with it.

The idea that in (42) the adverb does not agree with the subsequent direct object but that it agrees with a preceding topic is confirmed by the behavior of inflecting negative operators. If instead of *matematika* in (42) we have a negative operator such as *nifun*-('nobody'/'none'), we can see that the adverb still agrees in gender with the preceding

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<sup>&</sup>lt;sup>16</sup> Yielding *kwal:-u*, M.SG; *kwal:-a*, F.SG, and *kwal:-i*, PL. In this case, no schwa ending is involved. D elements seem to retain gender morphology better than other nominal categories such as nouns or adjectives. With respect to nouns or adjectives D elements explicitly realize one more gender feature, which is the masculine *-u*. Examples include, other than *kwal:-u*, definite and indefinite articles *l-u* and *n-u*, distal and proximal demonstratives *kwid:-u* and *kwist-u/kwis:-u* (and their non-reinforced counterparts, *d:-u* and *st-u/s:-u*, and clitics, homophonous with definite articles, *l-u* (M.SG), *l-a* (F.SG), *l-i* (PL). Elsewhere in the nominal domain (nouns, adjectives), and in past participles, the *-u* inflection is completely absent. Clitic *l-i* is syncretic between accusative (PL) and oblique (both SG and PL). As the article, clitic *l-i* is also syncretic between M.PL and F.PL, and so is plural *-i* inflection in other elements; for example, *kwal:-i* is ambiguous between F.PL and M.PL. On the other hand, as noted in previous sections, *-i* is absent from nouns, adjectives, or inflected participles, where a combination of a metaphonic process on the root plus the *-ə* inflection serves to realize plurality (or gender). A small number of nouns realize *-a/-(ə)ra* plural inflection, like *lib:-ra*, 'books'; *vɔsk-əra*, 'woodlands'; *det-ra*, 'fingers' (see Russo 2007 and Loporcaro 2017 for an extended discussion on this type of plural in Southern Italo-Romance).

proposed topics, which are both feminine, and so does *nifun*-. The adverb and the negative operator together form a fragment answer (see Merchant 2006 for discussion).



Fragments include the adverb and the negation. The negation scopes over the adverbial modification of the two proposed topics (*storia* and *matematika*), yielding something like "[ $\neg$  [good, history]]; [ $\neg$  [good, mathematics]]". We take *nifun-a*, which literally means 'not one' to be a distributive negative operator, taking scope over singletons. Given that both elements are feminine, the negative operator in the fragment answer shows up with feminine morphology. Matching of the phi-features of both nouns values the negative operator with the same features. The same happens with the adverbial b: n-a in the fragment answer. Every piece of inflection in the fragment answer depends then on the presence of the two proposed topics. Finally disjunctive or coordinates two elements of the same syntactic category.

Now there are two separate mechanisms which can lead to 'non-agreeing' forms on the adverb. We have mentioned the absence of an Individuation Node; this can mean that there is no chain containing it or that the element starting the chain is absent. But the same obtains with two competing, mismatching Individuation Nodes (for example, a feminine singular noun and a masculine plural one).

```
(47) a. ... l-i lib:-ra o l-a poesi-a ...

DEF-PL book-M.PL or DEF-F.SG poem-F.SG

'the books or the poem'

b. b:on-ə nentə/*niʃun-ə/*b:ɔn-a niʃun-a/*b:ɔn-a nentə
good-ənothing/*none-M.SG/*good(F)-F.SGnone-F.SG/*good(F)-
F.SG nothing

'(I've studied) nothing well'
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One could argue that in (b) b:on-a agrees with lib:-ra; in principle it is morphologically and phonologically compatible with this interpretation (cf. the preceding sections on the language's morphology). If this were the case, the negative operator would be  $nifun-\partial$  (none-M), in accordance with proper agreement with a preceding topic on the adverb and the subsequent negative operator (... lett-ə nifun-ə lib:-ra, '... read no books'). What we have here is instead nento 'nothing', a morphologically invariable operator. Note that closest-topic agreement is not available either, because otherwise a feminine adverbial agreeing with poesia could be possible, but it is not. In short, this language displays topicoriented agreement phenomena in fronted adverbials, but only under certain conditions. If multiple suggested topics with mismatching phi features are realized, their phi features will fail to show up on the adverb. This suggests that the adverb looks at both proposed topics and searches for matching features within the domain limited by the OR phrase. If the second disjunct has different phi features from the first one, it basically works as an intervener, disturbing the matching relation. A second context in which agreement fails to be realized is one in which, as discussed, the adverb finds no Individuation Node to agree with (as in wh- phrases with ke with no overt disjunct direct objects). A fronted inflected adverb is then possible if:

- a) the question contains overt coordinated arguments, or elements continuing a chain (for example inflecting wh- elements);
- b) coordinated arguments in the question have matching phi features.

Conversely, agreement cannot take place if:

- a) no chain is present (ex. the *wh* element is non-inflecting *ke*), and no overt object is present;
- b) the answer contains two coordinated objects, but their phi features do not match. Mismatching phi features block agreement on the fronted adverb.

We have one last topic-related phenomenon to discuss, and namely that of alternating positions of nouns and adverbs in the SC, which will be the focus of the next section.

## 3.3. Back to vP: different positions within the SC

Now with regards to the position of adverbs and verbal arguments, it should be noted that it can be of two types. The nominal argument can be either pre-adverbial, or post-adverbial.

(48)	a.	sa-t͡ʃːə	stori-a	b:on-a
		know-1.sG	history-F.SG	good(F)-F.SG
		'I studied well fo	r my history home	ework'
	b.	sa-t͡∫:ə	b:on-a	storia
		know-1.sG	good-F.SG	history-F.SG

#### 'I studied well for my history homework'

Prosodically, the most embedded element has a flat contour. In fact, different positions can be accounted for if they are assigned different information structure-related functions. Focus-related positions are often deeply embedded as in post-verbal and post-adverbial nominals, while pre-adverbial positions carry presupposed information, and hence topical information; see Broekhuis (2020), but also Biberauer & Roberts (2006)<sup>17</sup>, both works exemplifying this for Germanic. The topical position is a moved position, while the focus is in sentence-final position, where it carries a clause-neutral accent (Cinque 1993, Broekhuis 2020). Two question-answer pairs are given below. In the first one the interlocutor asks, 'what did you read well?'. The answer is, 'I've studied history well'. Here, the presupposed content is that there exists something that was read well. The answer contains new information about what was read well, and namely 'history'.

(49)	a.	ke	ta		lett-ə	b:on-ə?
		what	cl.OBL.2.SG.hav	e.2.SG	read-ə	good-ə
		'what o	lid you study well	!?'		
	b.	me		lett-ə	b:on-a	stori-a
		cl.OBL.	1.SG.have.1.SG	read-ə	good(F)	-F.SG history-F.SG
		'I've st	tudied history wel	1'		

This example tells us two things. First, it shows the difference between agreement in a local domain, and the type of agreement we saw with fronted adverbs. Here the question does not contain gender features of any kind, but the answer contains an inflected adverb. Second, it shows that the presupposed content is pronounced first. 'history', the focal information, is instead pronounced last. On the contrary, in the example below the answer contains a preadverbial noun.

```
(50) a. ke ta lett-ə stori-a o matematik-a? what cl.oBL.2.SG.have.2.SG read-ə history-F.SG or maths-F.SG 'what did you study history or mathematics?'
b. me lett-ə stori-a b:ɔn-a cl.oBL.1.SG.have.1.SG read-ə history-F.SG good(F)-F.SG 'I've studied history well'
```

In this case the presupposed information is that either history or mathematics were studied. The answer picks one of the two disjuncts, and adds new information on the manner in which the presupposed information took place. Consequently, as focal information, the adverbial shows up in sentence-final position (see also Silvestri 2017 on Calabrian).

<sup>&</sup>lt;sup>17</sup> And especially their footnote 4.

#### 4. CONCLUSIONS

In this paper, we investigated adverbial agreement in a Southern Italo-Romance language, Sandəmarkesə, spoken in San Marco in Lamis, in the Gargano subregion of Apulia. We proposed that the adverb always sits with a noun, the subject of a predication, which is either the verb's object or subject, or a nominalization of the event expressed by the verb, within a Small Clause in a manner similar to absolute participial clauses. We analyzed agreement as a phasal marker, being the SC propositional. The subject of the predication, when not overt, is compared to little [n] (Acquaviva 2007), which ensures adverbial agreement also in imperatives, given that second person pronouns are analyzed as including a participant node, and an individuation node stemming from the subject of the predication.

In fronted adverbs with different disjuncts, the adverb looks at each disjunct, only realizing agreement when all of the disjuncts have matching phi-features, otherwise failing to realize agreement with one of the disjuncts, thus realizing the 'non-agreeing' form, which, as we anticipated, is simply the realization of agreement with a nominalization of the event (see also Ledgeway 2017). Fragment answers containing inflected adverbs realize a similar agreement pattern. In sum 'non-agreeing' forms obtain in the following cases: 1) the absence of an Individuation Node, i.e., there is no chain containing it or that the element starting the chain is absent, and 2) there exist two competing, mismatching Individuation Nodes with respect to their phi-features.

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