## ON THE SYNTAX OF SOME APPARENT SPATIAL PARTICLES IN ITALIAN

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#### Abstract

The paper deals with Italian Particle Verb Constructions that seem to display a different Grammatical Function assignment from the one of the base verb. I first demonstrate that the f-structures of these sentences are actually the same as the ones otherwise licensed by the verb. Then, I argue that the apparent spatial particles at stake are better analyzed as a particular class of prepositions that can realize their objects in non-adjacent c-structure nodes. Finally, I show how this discontinuous mapping from c- to f-structure (which obtains in other, unrelated constructions too) is licensed. As a consequence of the present account, a more restrictive and precise characterization of "Particle Verbs" for Italian is provided.

## **1** Introduction

Particle Verbs (henceforth, PVs) in English and in Germanic languages have been one major topic in generative linguistics for several decades (Emonds 1972; den Dikken 1995; Stiebels 1996; Dehé et al. 2002). The last years have seen an increasing interest in similar constructions in Italian and Romance, too, and many studies have been devoted to the topic, from different theoretical perspectives (Cini 2008; Cordin 2011; Iacobini & Masini 2007; Mateu & Rigau 2010, to name a few). Leaving aside a comparison of Italian and Germanic PVs, the present paper concentrates on Italian PVs that apparently exhibit a Grammatical Function assignment that is different from the one of their base verbs (cf. Cordin (2011:17); Iacobini & Masini (2007:159); Schwarze (2008:216)):

- a. Stefano è corso alla fermata dell' autobus
  S. is run to-the stop of-the bus
  'Stefano ran to the bus stop.'
  b. Stefano gli è corso dietro
  - S. DAT.3SG.M is run behind 'Stefano ran after him.'

In (1a), the unaccusative verb *correre* 'to run' calls for a SUBJ (*Stefano*) and a spatial OBL (*alla fermata dell'autobus*). The PV *correre dietro* in (1b), on the other hand, seems to subcategorize for a SUBJ (*Stefano*) and an OBJ<sub> $\theta$ </sub> (realized through the dative clitic pronoun *gli*). Notably, the verb *correre* alone does not normally take any OBJ<sub> $\theta$ </sub>:

(2) \*Stefano gli è corso S. DAT.3SG.M is run 'Stefano ran to him.'

<sup>&</sup>lt;sup>†</sup>I am indebted to Christoph Schwarze and Miriam Butt for helpful discussion about the phenomena presented here. Moreover, I thank the participants to the LFG conference 2012 for pointing out interesting problems during my presentation.

In recent LFG literature, similar cases have been pointed out by Forst et al. (2010) for German and by Laczkó & Rákosi (2011) for Hungarian. The authors argue that the constructions at hand involve complex predication: verb and particle combine syntactically, and the new PRED features a GF-assignment that is different from the one of the verb.

The present paper aims first at demonstrating that a change in the GF-assignment is not what is going on in the Italian cases. By means of three syntactic tests, evidence is provided that sentences like (1b) feature a discontinuous  $OBL_{\theta}$ , and not an  $OBJ_{\theta}$ . I show that elements like *dietro* are not "true", but just "apparent" particles. They are better analyzed as a special class of prepositions that may govern their OBJs either in their c-structural complement position, or in non-adjacent nodes (like CL), provided that their CASE-requirements are met. It is precisely the last c-structural configuration (the same as in (1b)) that gives the double illusion of particle-syntax and change of GF-assignment. The c- to f-structure mappings displayed by the constructions at stake are then formalized (in terms of XLEcompatible annotated c-structure rules). Beyond giving a more restrictive and accurate characterization of spatial particles in Italian, the present account offers a window on how this language employs CASE as a means for the retrieval of GFs.

The paper is structured as follows: in section 2, an overview on Italian PVs is given; in section 3, I present three tests for the inspection of f-structure, in order to isolate the actual make-up of the f-structure; in section 4, I introduce the system I adopt for representing case; I then present the analysis of the spatial elements at stake, and I describe the c- to f-structure mappings displayed. In section 5, I summarize and make some concluding remarks.

## 2 Italian Particle verbs

Particle Verbs are commonly thought of as a linguistic phenomenon typical of Germanic languages, but absent in Romance ones (e.g. Snyder 2001). This generalization can be viewed as a corollary of Leonard Talmy's typology of motion events (Talmy 1985, 1991). Whereas Germanic languages, like English and German, lexicalize the "MANNER" meaning component in the verb root and "PATH" thrugh an adositional phrase or a particle, Romance languages, like Spanish and Italian, behave in the opposite way: "PATH" is lexicalized in the verb root, whereas "MANNER" is provided by a separate lexical item, such as a gerund. Accordingly, Germanic languages should be prone to constructions where a spatial particle encodes aspects of "PATH", like PVs: cf. English to fly in, German hinein-//hinausfliegen, Swedish flyger in. Although Talmy himself (1985) specified that his typology should not be interpreted as a sharp distinction without exception possibilities, the first linguist who pointed out the existence of Italian structures resembling Germanic PVs was Schwarze (1985), then followed by Simone (1997). Schwarze (1985) noticed that Italian features not only the typically Romance, expected pattern, but also the more Germanic-like one: the spatial particle encodes (aspects

of) "PATH", while the verb lexicalizes "MANNER". Thus, beside the Romance type *uscire correndo* 'to go out (while) running', Italian features the Germanic-like *correre fuori* 'to run out', too.

The structure of Italian PVs can be descriptively characterized as follows: the combination of a verb and a spatial particle. One main issue in works on PVs (both Germanic (Booji 2002) and Italian (Iacobini & Masini 2007; Iacobini 2009)) is that of the locus of composition of these constructions: lexicon or syntax. Even within the LFG literature, one finds scholars defending opposite analyses: thus, as regards Hungarian PVs, Ackerman (1983) argues for a lexical account, whereas Laczkó & Rákosi (2011) prefer a syntactic one. Since, in Italian PVs, verb and particle can be separated at c-structure (cf. Masini 2008), a syntactic analysis would be the simplest assumption, and I will adopt it in this paper.

In the present work, I assume that lexical items that syntactically behave as particles belong to the major lexical category of P(repositions) (keeping to generalizations discussed in Emonds (1972) and Svenonius (2003; 2007)). On the contrary, particles are often classified as "adverbs" or "locative adverbs" in the literature on Italian PVs (cf. e.g. Cordin 2011; Iacobini & Masini 2007). This is because some of these elements need not take a complement (e.g. *fuori* 'out(side)', *dentro* 'in(side)', *sopra* 'on, above', *sotto* 'under(neath)'), and some cannot take a complement altogether (e.g. *avanti* 'ahead', *indietro* 'back(wards)'). Nonetheless, both their meaning and the distribution of the phrase the build set them together with "canonical" Ps: in some way, claiming that these items are not Ps would let us miss some important generalizations. Moreover, facts about complementation pose no problems for the approach defended here, if one adopts Emonds' (1972) and Jackendoff's (1983:57-60) view that the category P owns both transitive, and optionally transitive, and intransitive members – just like the category V. As regards the meaning of Italian PVs, I will conform to Iacobini & Masini's

(2007:162) tripartite classification:

- (3) a. locative meanings, as in *sbattere fuori* 'to slap out'
  - b. idiomatic meanings, as in *fare fuori* 'to kill' (lit.: 'to do out(side)')
  - c. **aspectual and/or actional meanings**, as in *raschiare via* 'to (successfully) scrape something away'

In this paper, I focus on PVs encoding locative meanings, since these are the ones where the phenomena at stake here can be appreciated at best.

### **3** Apparent changes in GF-assignment

#### **3.1** The constructions at stake

The class of PVs I am going to focus on features, beside verb and spatial particle, the "Ground"-argument of the particle. This can be realized either (i) as a PP ((4a), (4b)) or (ii) as a case-marked clitic pronoun ((5a), (5b)):

- (4) a. il difensore è corso dietro **all' attaccante** the defender has run behind to-the attacker 'the defender ran after the attacker.'
  - b. il bandito salta dentro **al treno** the bandit jumps inside to-the train 'the bandit jumps in the train.'
- (5) a. il difensore **gli** è corso dietro the defender DAT.3SG.M has run behind 'the defender ran after him.'
  - b. il bandito **ci** salta dentro the bandit LOC jumps inside 'the bandit jumps in there.'

In the full-phrasal realization, one always gets PPs headed by *a* 'to'. On the other hand, if the "Ground" is encoded through a clitic, the animacy of the referent imposes a certain value for the attribute CASE: one gets dative clitics in case of [+animate] ((5a)), but locative clitics in case of [-animate] ((5b))<sup>1</sup>. Note that the same paradigm is exhibited by most other spatial particles (*addosso* 'on', *sotto* 'under(neath)', *sopra* 'upon, above', *vicino* 'near(by)', *contro* 'against', *intorno*, *attorno* '(a)round', *davanti* 'in front of', *accanto* 'beside', *incontro* 'towards', *appresso* 'by'), and with transitive verbs as well. In what follows, I am going to examine the structures involving PPs first, and the ones involving clitics later.

As Iacobini & Masini (2007:159) note, sentences like the ones in (4a) and (4b) are structurally ambiguous. On the one hand, the PP headed by a 'to' could be governed by the particle (yielding a complex PP):

- (6) a. il difensore è corso [dietro [all' attaccante]<sub>PP</sub>]<sub>PP</sub>
  - b. il bandito salta [dentro [al treno] $_{PP}$ ] $_{PP}$

This obtains e.g. in sentences like the following:

- (7) a. il difensore era **dietro all' attaccante** the defender was behind to-the attacker 'the defender was behind the attacker.'
  - b. la pistola era **dentro alla borsa** the gun was inside to-the bag 'the gun was inside the bag.'

On the other hand, the *a*-PP could be governed by the PV directly:

(8) a. il difensore è [corso dietro]<sub>PV</sub> [all' attaccante]<sub>PP</sub>
b. il bandito [salta dentro]<sub>PV</sub> [al treno]<sub>PP</sub>

PPs headed by *a* are indeed possible c-structural realizations of two clause-level GFs:  $OBJ_{\theta}$  ((9a)) and  $OBL_{\theta}$  ((9b)) respectively:

<sup>&</sup>lt;sup>1</sup>In Italian, as in French, dative clitics bear PERS/NUM/GEND features, locative clitics do not.

(9) a. il difensore passa il pallone **al portiere** the defender passes the ball to-the goalkeeper 'the defender passes the ball to the goalkeeper.'

b. il bandito abita **a Torino** the bandit lives to Torino 'the bandit lives in Turin.'

Let us consider the implications of each hypothesis for the f-structures of the sentences in (4a) and (4b). If the first hypothesis were the case (i.e., the *a*-PP builds a unit together with the particle), the extra *a*-PP would bear a grammatical function subcategorized for by the PRED contributed by the spatial particle. For the time being, I won't make any claims about the precise identity of this function, and I will call it simply GF. *a*-PP and particle would then together correspond to a complex  $OBL_{loc}$ . This, in turn, would be subcategorized for by the verb. Verb and particle would correspond to separate predicates, at the level of f-structure. I will call this "Hypothesis (i)". In Figure 1, an underspecified f-structure consistent with Hypothesis (i) is given:



Figure 1: Hypothesis (i) (underspecified f-structure)

On the other hand, if the second hypothesis were the case (i.e., the *a*-PP is governed by the whole PV), the f-structure of the sentences would be deeply different: the PP headed by *a* would bear a clause-level GF on its own. Let us provisorily call this  $GF_{loc}$ . This grammatical function would be subcategorized for by a complex PRED, corresponding to the whole PV. Verb and particle would then build a single predicative unit – which is usually the case either (i) in case of Complex Predication, or (ii) in case of Applicatives<sup>2</sup>. I will call this "Hypothesis (ii)". In Figure 2, an underspecified f-structure consistent with Hypothesis (ii) is given:

SUBJ	[]
PRED	$'$ <b>verb</b> + <b>particle</b> <( $\uparrow$ SUBJ) ( $\uparrow$ GF <sub>loc</sub> )>'
	[]
GFloc	[]

Figure 2: Hypothesis (ii) (underspecified f-structure)

<sup>&</sup>lt;sup>2</sup>I thank Miriam Butt for suggesting this last possibility to me with respect to these cases.

Let us now turn to the sentences where the "Ground"-argument is encoded by a clitic pronoun ((5a), (5b)). In Italian, both dative and locative clitics can realize clause-level GFs:

a. il difensore gli passa il pallone the defender DAT.3SG.M passes the ball 'the defender passes him the ball.'
b. il bandito ci abita the bandit LOC lives 'the bandit lives there.'

gli in (10a) is an OBJ<sub>goal</sub>, while *ci* in (10b) is an OBL<sub>loc</sub>. In the literature, PVs appearing with "Ground"-clitics have not been investigated systematically. Iacobini (2008:113-5) considers structures involving dative clitics, and concludes that these are extra-arguments licensed by the PV (in line with our Hypothesis (ii)). Basing on evidence like (10a), dative clitics are thus considered 'bona fide' Indirect Objects. Masini (2008:86-7), on the other hand, argues that sentences like (10a) feature prepositions taking a clitic complement – which corresponds to our Hypothesis (i). It should be noted that the data in (10a)-(10b) enable us to refine Hypothesis (ii). Since, in these sentences (as in many others), dative clitics encode OBJ<sub>θ</sub> but locative clitics encode OBL<sub>θ</sub>, it can be argued that [+animate] "Grounds" are OBJ<sub>loc</sub>s, whereas [-animate] ones are OBL<sub>loc</sub>s. As a matter of fact, the former alternate with dative clitics, the latter with locative clitics.

At this point of the paper, both possible analyses of the structures at hand have been sketched. In (3.2) I provide pieces of evidence that Hypothesis (ii) is untenable, whereas Hypothesis (i) correctly predicts the data. In section (4) I will describe the c- to f-structure mappings licensing the structures at stake.

#### 3.2 Inspecting f-structure

#### 3.2.1 Missing realization possibilities

In structures featuring PVs that lack a "Ground"-argument, the OBJ-NP –which encodes the "Figure"-argument, and clearly has to be analyzed as a clause-level  $GF^3$  – can appear either to the right ((11a)) or to the left ((11b)) of the particle, yielding something similar to the typically Germanic "particle shift":<sup>4</sup>

(11) a. il barista porta fuori le sedie the barman brings out the chairs 'the barman brings out the chairs.'

<sup>&</sup>lt;sup>3</sup>For example, it can be passivized: *le sedie vengono portate fuori* 'the chairs are brought out.'.

<sup>&</sup>lt;sup>4</sup>This phenomenon appears to be more constrained in Italian than e.g. in English, even if it is driven by the same information-structural reasons (cf. Masini 2008). Nonetheless, these structures are licit, provided that certain lexical (PVs with locative meanings are preferred, cf. Masini (2008:92)) and prosodic (the interposed NP must not exceed one phonological phrase, cf. Schwarze (2008:220-1)) conditions are met.

b. il barista porta le sedie fuori the barman brings the chairs out 'the barman brings the chairs out.'

If the "Ground"-PPs under scrutiny were to be analyzed as clause-level GFs, one would predict that they could be interposed between verb and particle as well. Though, just the linear order [...V - Prt - PP...] is grammatical ((12a)), whereas the order [...V - PP - Prt] is ungrammatical ((12b)):

a. il cane salta addosso al ladro the dog jumps on to-the thief 'the dog jumps up at the thief.'
b. \*il cane salta al ladro addosso the dog jumps to-the thief on 'the dog jumps up at the thief.'

It could be objected that "shiftability" is an idiosyncratic property of every single particle: *fuori* is shiftable, *addosso* is not. But it's easy to provide an immediate counterexample:

(13) il manifestante gli lancia delle pietre addosso the protester DAT.3SG.M throws of-the stones on 'the protester throws stones at him.'

In (13), *addosso* appears in the shifted position: the OBJ-NP is now placed between it and the verb.

Under Hypothesis (i), these facts are easily explained. PPs like *al poliziotto* in (12a) are OBJs of the particle, which here actually behaves as a normal preposition. Subsequently, its complement must be realized on its right, as usual in Italian. Trying to place the PP to the right of the verb, in the c-structural position of  $OBJ_{\theta}$ , fails, for the verb *saltare* in (12b) does not take any  $OBJ_{\theta}$ .

#### 3.2.2 Resumptive clitic pronouns in Clitic Left Dislocation

Clitic Left Dislocation (henceforth, CLLD) is a typically Romance structure where a phrase XP (it may be NP, PP, AP, VP, CP) is placed at the beginning of the sentence, and the GF it bears is indexed by means of a clitic pronoun, which functions as a resumptive element. The dislocated phrase XP is interpreted as the sentence Topic<sup>5</sup>. In (14a)-(14d), examples are provided:

(14) a. **Mario**, lo amiamo tutti M. ACC.3SG.M love-1PL all 'Mario, we all love him.'

<sup>&</sup>lt;sup>5</sup>For a survey of Italian and Romance CLLD, see Cinque (1990:56-97).

- b. **a Mario**, Giorgio **gli** ha regalato un libro to M. G. DAT.3SG.M has presented a book 'Mario, Giorgio gave a book to him as present.'
- c. **in Russia**, Mario **ci** vuole andare in Russia M. LOC wants to-go 'to Russia, Mario wants to go there.'
- d. **che Mario è bravissimo, lo** abbiamo sempre saputo that M. is good-SUPERL ACC.3SG.M have-1PL always known 'that Mario is very good, we always knew that.'

As can be seen in the examples, matching of GFs occurs by means of CASE and, where possible, PERS/NUM/GEND features. Thus, NPs functioning as OBJ must be resumed by accusative clitics matching agreement features ((14a)), PPs functioning as  $OBJ_{\theta}$  must be resumed by dative ones ((14b)), whereas  $OBL_{\theta}$  and COMP must be resumed by the locative clitic ((14c)) and by the accusative singular masculine clitic *lo* ((14d)) respectively.

Now, if Hypothesis (ii) were the case, in ambiguous structures like (15a) and (15b) it should not be possible to dislocate the spatial particle together with the PP, while getting the resumptive clitic indexing  $OBL_{\theta}$ :

- (15) a. il difensore è corso dietro all' attaccante the defender has run behind to-the attacker 'the defender ran after the attacker.'
  - b. l' allenatore piazza dietro all' attaccante un difensore the coach places behind to-the attacker a defender 'the coach puts a defender behind the attacker.'

However, this is possible, indicating that Hypothesis (ii) makes wrong predictions:

- (16) a. **dietro all' attaccante**, **ci** è corso il difensore behind to-the attacker, LOC has run the defender 'after the attacker, the defender ran there.'
  - b. **dietro all' attaccante**, l' allenatore **ci** piazza un difensore behind to-the attacker, the coach LOC places a defender 'behind the attacker, the coach puts a defender there.'

This structures are grammatical precisely because spatial particle and PP form a unit together, both at c-structure (a complex PP), and at f-structure (a complex  $OBL_{\theta}$ ).

Turning to sentences where the "Ground"-argument is realized through a casemarked clitic pronoun ((17a), (17b)), we find out that CLLD can apply to the spatial particle alone, indexing it as an  $OBL_{loc}$  ((18a), (18b)):

(17) a. il difensore gli è corso dietro the defender DAT.3SG.M runs behind 'the defender runs after him.'

- b. l' allenatore gli piazza dietro un difensore the coach DAT.3SG.M places behind a defender 'the coach puts a defender behind him.'
- (18) a. **dietro**, gli **ci** è corso il difensore behind, DAT.3SG.M LOC has run the defender 'after him, the defender ran there.'
  - b. **dietro**, l' allenatore gli **ci** piazza un difensore behind the coach DAT.3SG.M LOC places a defender 'behind him, the coach puts a defender there.'

The sentences in (18a)-(18b) might seem to contradict the data in (16a)-(16b), for the particle only is fronted, leaving the clitics in place. Though, this is consistent with Hypothesis (i): (17a) and (17b) display discontinuous OBL<sub>loc</sub>s, where dative clitics contribute the OBJ attribute, while spatial particles contribute PRED. Of both, the only element feasible to be placed in the c-structure node hosting left-dislocated phrases (an XP-node adjoined to IP) is the particle, because clitic pronouns have to be attached either as sisters to I<sup>0</sup> or as sisters to V<sup>0</sup>. But the sentences in (18a) and (18b) don't display just spatial particles and dative clitics. The resumptive locative clitic pronoun *ci* is present, too. On Hypothesis (i), this is predicted: since an OBL<sub>loc</sub> function is topicalized, it must be resumed within the clause by means of a locative clitic. On the contrary, the presence of the resumptive *ci* is not expected under Hypothesis (ii). According to the refined version of Hypothesis (ii) in section 3.1, in structures like (17a)-(17b) the f-structure would contain an OBJ<sub>loc</sub>, but no OBL<sub>loc</sub> function at all. Therefore, indexation of OBL in CLLD would remain unexplained (and unpredicted).

In light of these facts, the test involving CLLD provides a crucial piece of evidence that only Hypothesis (i) is sustainable.

#### 3.2.3 Binding of proprio

Binding data regarding the adjective *proprio* 'own' also suggest that the ambiguous sentences actually contain a complex  $OBL_{loc}$ , and not an  $OBJ_{loc}$ . Giorgi (1984, 1991) dubs *proprio* a "possessive anaphor": while it owns typical adjectival morphology (it must agree in NUM and GEND with a noun), it must be bound, like anaphors. Giorgi (1991:186) claims that this element can behave in two ways: it can be either clause-bound, or long-distance-bound. In the first case, both SUBJ and OBJ may be legitimate antecedents ((19a), taken from Giorgi (1984:314)); in the second, *proprio* is subject-oriented ((19b), taken from Giorgi (1991:186)):

(19) a. Gianni<sub>j</sub> ha ricondotto Maria<sub>i</sub> alla propria<sub>i/j</sub> famiglia G. has taken-back M. to-the own family 'Gianni brought back Maria to his/her own family.'

b. Gianni<sub>j</sub> ha aizzato Maria<sub>i</sub> contro coloro che disprezzano il G. has turned M. against those who despise the proprio<sub>j/\*i</sub> figlio own son 'Gianni turned Maria against those who despise his/\*her own son.'

In both cases, it seems that binding of *proprio* is constrained by a general f-command condition, as can be appreciated from the following examples:

(20)	a.	il presidente <sub>i</sub> ha ringraziato i propri <sub>i</sub> sostenitori				
		the president has thanked the own supporters				
		'the president thanked his own supporters.'				
	b.	gli amici <sub>i</sub> di Gianni <sub>j</sub> apprezzano le proprie <sub>i</sub> / $_{*j}$ poesie				
		the friends of G. appreciate the own poems				
		'Gianni's friends appreciate their/*his own poems.'				
	c.	che i propri <sub>i</sub> ospiti siano arrivati in ritardo non				
		that the own guests have-SUBJUNCTIVE arrived in delay not				
		ha stupito Mario <sub>i</sub>				
		has surprised M.				
		'that his own guests arrived late did not surprise Mario.'				
	d.	*che Mario <sub>i</sub> sia arrivato in ritardo non ha stupito				
		that M. has-SUBJUNCTIVE arrived in delay not has surprised				
		i propri <sub>i</sub> amici				
		the own friends				
		**that Mario arrived late did not surprise his own friends.'				

Now, recalling that f-command is defined as follows (Bresnan (1982:334)):

(21) F-command:

For any occurrences of the functions  $\alpha$ ,  $\beta$  in an f-structure F,  $\alpha$  *f-commands*  $\beta$  if and only if  $\alpha$  does not contain  $\beta$  and every f-structure of F that contains  $\alpha$  contains  $\beta$ 

it is easy to see that in (20a)-(20d), the anaphor *proprio* can be bound only by those GFs that f-command it. Thus, in (20a) *il presidente* (value of SUBJ) f-commands the f-structure corresponding to the OBJ, and also *propri*, which is contained within it. In (20b), *Gianni* cannot be a binder, for the first f-structure containing it (the f-structure corresponding to the SUBJ) does not contain *proprie*. Similar arguments apply to (20c) and (20d).

Binding of *proprio* provides us with a probe into the f-structure of the ambiguous sentences: if the "Ground"-PPs really were clause-level  $OBJ_{loc}s$ , they should be possible binders. However, this is not the case, as the following examples show:

(22) a. Paolo<sub>i</sub> mette dietro a Maria<sub>j</sub> il proprio<sub>i/\*j</sub> ritratto P. puts behind to M. the own portrait 'Paolo<sub>i</sub> puts his/\*her own portrait behind Maria.' b. il ninja<sub>i</sub> lancia contro al samurai<sub>j</sub> la propria<sub>i/\*j</sub> spada the ninja throws against to-the samurai the own sword 'the ninja<sub>i</sub> throws his<sub>i/\*j</sub> own sword against the samurai<sub>j</sub>.'

Under Hypothesis (i), these facts are predicted: the PPs would be GFs embedded in a clause-level  $OBL_{loc}s$ , and from their structural position they could not f-command the anaphor, which is embedded in the clause-level OBJs.

Interestingly, however, the sentences featuring clitic pronouns behave in the opposite way:

- (23) a. Paolo<sub>i</sub> le<sub>j</sub> mette dietro il proprio<sub>i/j</sub> ritratto P. DAT.3SG.F puts behind the own portrait 'Paolo<sub>i</sub> puts his/her own portrait behind her.'
  - b. il ninja<sub>i</sub> gli<sub>j</sub> lancia contro la propria<sub>i/j</sub> spada the ninja DAT.3SG.M throws against the own sword 'the ninja<sub>i</sub> throws his<sub>i/j</sub> own sword against him<sub>j</sub>.'

The clitics *le* and *gli* have the same f-structural position as the PPs *a Maria* and *al samurai* in (22a) and (22b) respectively. Subsequently, it is predicted that they should not be able to bind the anaphor, for they do not f-command it. Indeed, surprisingly, they are able to bind *proprio*. These facts can be explained by appealing to the information-structural status of clitic pronouns. In Italian, clitic pronouns are topical: as Berretta (1986:71) points out, they convey "de-emphatic old information". In sentences like (23a) and (23b), they receive an i(nformation)-structural representation that is different from the one of the particle (probably, TOPIC). Accordingly, at i-structure they are separate from the rest of the OBL<sub>loc</sub>, and they therefore regain a prominence they do not have at f-structure<sup>6</sup>. Thus, I tentatively argue that this kind of prominence relaxes the f-command condition, enabling the clitics at stake to bind the anaphor<sup>7</sup>. In sum, data concerning binding of the anaphoric adjective *proprio* are also compatible with Hypothesis (i).

The three tests I have presented so far provide evidence that Hypothesis (i), and not Hypothesis (ii), is a sustainable representation for the examined constructions. In the course of the discussion, it may already have become clear to the reader why the spatial elements at stake only display an apparent particle-syntax: the tests suggest that these elements syntactically behave like prepositions. As a matter of fact, they constantly keep a dependency relation to an OBJ. This is evident in case they govern it on their right, but might seem bizarre when the OBJ is encoded as a clitic. In section 4, I concentrate on the last kind of mapping, showing that it is not peculiar to this class of lexical items.

 $<sup>^{6}</sup>$ An alternative solution consists in resorting to c-command. Under a c-structural analysis of clitics as non-projecting nodes adjoined to V<sup>0</sup>/I<sup>0</sup> (e.g. Toivonen (2001)), the dative clitics would c-command the XP containing the anaphor.

<sup>&</sup>lt;sup>7</sup>Indeed, there is evidence from unrelated constructions that prominence at i-structure plays an important role with respect to grammatical processes, in Italian (cf. Salvi 1986).

# 4 Apparent spatial particles and their c- to f-structure mapping

In this section, I explain how the mapping from c-structure to f-structure takes place in the constructions discussed in section 3. The analysis consists of two major premises, to be introduced in turn, and a presentation of the c-structure rules and the functional annotations licensing the correspondence.

#### 4.1 Case in Italian

A framework like LFG makes it possible to formally represent the acknowledged generalization that different categories (e.g. P and CL) can contribute an identical grammatical information (e.g. CASE). As regards Romance languages, much work has been done on the role of case and its representation (Grimshaw (1982), Frank (1996) and Schwarze (1996) on French; Alsina (1996) on Catalan; Schwarze (2012) on Italian). The representation of case I propose in this paper is in line with the one worked out in Schwarze (1996; 2012).

Italian features a "janus-faced" case-marking system: on the one hand, CASE can be expressed syntactically, namely through Ps devoid of a PRED attribute. On the other, clitics encode CASE-oppositions morphologically (although syncretic forms often neutralize such oppositions, like *ne*, as is expected in lexical paradigms):

	ACC	DAT	LOC	GEN	ABL		
Р	_	а	а	di	da		
CL	lo, la, le, li	gli, le	ci	ne	ne		

Table 1: Sketch of Standard Contemporary Italian case system

In the present system, CASE is assigned to a given f-structure only in presence of an overt marker. A consequence of this is that SUBJs and OBJs, if encoded by NPs, do not contain a CASE attribute. In these cases, the encoding of Grammatical Functions obtains configurationally. However, if one wants to keep to generalizations about case-assignment, it is possible to assign NOMINATIVE and ACCUSATIVE structurally, i.e. by means of additional functional annotations on the c-structure nodes where SUBJ and OBJ can be realized.

In what follows, I illustrate how the system of case interacts with the class of spatial particles I have been focussing on.

#### 4.2 "True" and "apparent" particles

The main claim of this paper is that the P-elements involved in the constructions under scrutiny syntactically behave as prepositions, and not as particles —as they are usually analyzed. Precisely, they belong to a special sub-class of Italian Ps that can lexically impose CASE requirements on their governed GFs. Consider the following sentences:

- (24) a. l' allenatore piazza dietro **all' attaccante** un difensore the coach places behind to-the attacker a defender 'the coach puts a defender behind the attacker.'
  - b. l' allenatore **gli** piazza dietro un difensore the coach DAT.3SG.M places behind a defender 'the coach puts a defender behind him.'
- (25) a. il bambino mette dietro **al muretto** i giochi the kid puts behind to-the wall-DIMINUTIVE the toys 'the kid puts the toys behind the little wall.'
  - b. il bambino **ci** mette dietro i giochi the kid LOC puts behind the toys 'the kid puts the toys behind there.'

In these structures, the P *dietro* 'behind' requires its OBJ to be either DATIVE or LOCATIVE, depending on the value for the attribute ANIMATE. The grammatical P *a* 'to' is ambiguous: it can contribute either ( $\uparrow$  CASE) = DATIVE or ( $\uparrow$  CASE) = LOCATIVE. Subsequently, the opposition between the two values is superficially neutralized in (24a) and (25a). But, as soon as the subcategorized OBJ is encoded as a CL at c-structure, the opposition comes to the surface, as can be seen in (24b) and (25b). Interestingly, *dietro* (like *contro* 'against', *dentro* 'in(side)', *sopra* 'on; above', *sotto* 'under(neath)') can also take an NP as OBJ, without a "mediating" grammatical P:

- (26) a. l' allenatore piazza dietro **l' attaccante** un difensore the coach places behind the attacker a defender 'the coach puts a defender behind the attacker.'
  - b. il bambino mette dietro **il muretto** i giochi the kid puts behind the wall-DIMINUTIVE the toys 'the kid puts the toys behind the little wall.'

As argued in section 4.1 with respect to sentential OBJs encoded by NPs, also for the OBJs of *dietro* in (26a) and (26b) two treatments are possible: they can be either not marked for CASE, or structurally marked as ACCUSATIVE. In either case, they are not lexically marked by the governing P. According to this analysis, prepositions like *dietro* have two government patterns: they can either (i) lexically impose a certain value for CASE, or (ii) not impose any. However, the inventory of Italian predicative prepositions also contains classes that behave in a more restrictive way, allowing only one of the two strategies. Ps like *addosso* 'on', *davanti* 'in front of', *incontro* 'towards' exhibit (i), but not (ii):

(27) a. andavo incontro \*(a) Maria go-IMPF-1SG towards to M. 'I was going towards Maria.'

#### b. le andavo incontro DAT.3SG.F go-IMPF-1SG towards 'I was going towards her.'

Ps like *lungo* 'along', *verso* 'towards', *oltre* 'beyond' (in its spatial meaning) behave in the opposite way, exhibiting (ii), but not (i). Moreover, P-elements of this class do not tolerate clitic OBJs:

(28) a. andavo verso (\*a) Maria go-IMPF-1SG towards M. 'I was going towards Maria.'
b. \*la/le andavo verso ACC.3SG.F/DAT.3SG.F go-IMPF-1SG towards' 'I was going towards her.'

The generalization thus appears to be that only Ps that can lexically impose a CASE value on their OBJs can realize them on separate c-structure nodes.

Under the analysis presented here structures like (24a), (24b) and (25a), (25b) do not involve particles, but prepositions. This is a welcome conclusion: if these elements were analyzed as particles, this would argue against Svenonius' (2003:434) generalization that particles tend to introduce a "Figure" only, and no "Ground". The author himself points out that this statement should be interpreted as the typical case rather than as a strict generalization (Svenonius (2007:81)), and refers to cases where a particle does introduce a "Ground" as a syntactic argument of the verb (after demotion of the "Figure", cf. Svenonius (2003:437-8)). Nonetheless, it seems safe to assume that a P-element that *directly governs* a "Ground" is a preposition, and not a particle (as Svenonius (2003:434) proposes). In the constructions described so far, a "Ground" is always there, and it is always governed by the P-elements, be it realized as an adjacent PP or as a non-adjacent CL node. Now, in the latter realization option, c-structure rules produce a deceiving linear order, which closely resembles the typical one featured by "true" particles:

Italian does have "bona fide" spatial particles, as can be seen in the following sentences:

- (30) a. il ladro saltò dentro the thief jumped in(side) 'the thief jumped in.'
  - b. Luca ha buttato giù i birilli
    L. has thrown down the skittles
    'Luca threw down the skittles.'

But the crucial difference between these structures and the ones investigated in this paper lies in the absence vs. presence of a "Ground".

#### 4.3 Mapping c-structure to f-structure

The two structure types I have been considering feature a similar f-structure, but differ with respect to the  $\phi$ -projection. Though, this is expected, given that they also differ as regards c-structure. Sentences where the locative P take a PP as c-structure complement, present the standard mapping of locative PPs (depicted in Figure 3). On the other hand, sentences where a clitic pronoun encodes the "Ground" involve a discontinuous mapping (depicted in Figure 4).



Figure 3: Rosalba è corsa dietro al cane 'Rosalba ran after the dog.'



Figure 4: gli è corsa dietro 'She ran after him.'

The first type of mapping is effected by means of the following functional annotations on c-structure rules:

(31) 
$$VP \longrightarrow \dots V' \dots (PP)$$
  
 $\uparrow = \downarrow (\uparrow OBL_{loc}) = \downarrow$ 

$$(32) \qquad \begin{array}{cccc} PP & \longrightarrow & \dots & P^0 & (PP) \\ & \uparrow = \downarrow & (\uparrow OBJ) = \downarrow \end{array}$$

The second type of mapping is more complex. Whereas the annotation on the PP in (31) applies here too, the OBJ of  $OBL_{loc}$  is contributed by the clitic pronoun, attached as a sister of either V<sup>0</sup> or I<sup>08</sup>. If the CASE feature provided by the clitic is consistent with the requirements imposed by the PRED of the locative P, the partial f-structures will correctly unify as a complex OBL<sub>loc</sub>.

This kind of  $\phi$ -projection is not only found in the sentences examined here, but it instantiates a general mapping mechanism available for Italian clitic pronouns. Consider the following data:

- (33) a. Paolo è fedele ad Anna
  P. is loyal to A.
  'Paolo is loyal to Anna.'
  b. Paolo le è fedele
  P. DAT.3SG.F loyal
  'Paolo is loyal to her.'
- (34) a. Nerone desidera la distruzione di RomaN. wishes the destruction of R.'Nero wishes the destruction of Rome.'
  - b. Nerone ne desidera la distruzione N. GEN wishes the destruction 'Nerone wishes its destruction.'

In (33a)-(33b), the adjective *fedele* 'loyal' subcategorizes for a GF (it might be an OBJ, or an OBJ $_{\theta}$ ): this is encoded either through an adjacent PP, or through a clitic. Similarly, in (34a)-(34b) the event noun *distruzione* 'destruction' calls for a POSS, which is realized either through a PP or through a clitic pronoun. Importantly, in both cases —like in the sentences involving locative Ps— CL nodes are mapped onto a GF that is governed by a PRED embedded in a clause-level GF (PREDLINK in (33b), OBJ in (34b)). Obviously, CL nodes can be mapped onto clause-level GFs, too:

(35) a. Lucio parla di film horror L. talks of movie horror 'Lucio talks about horror movies.'
b. Lucio ne parla L. GEN talks 'Lucio talks about it.'

<sup>&</sup>lt;sup>8</sup>Toivonen (2001) argues that Romance clitic pronouns are non-projecting nodes. Accordingly, clitics are adjoined to  $V^0/I^0$ , resulting in another  $V^0/I^0$ . This seems a very interesting proposal to me, but its implementation in XLE easily runs into overgeneration problems. These can be avoided resorting to more complicated c-structure rules (involving disjunction) and to additional constraints, but for the purposes of this paper I keep to the more "traditional" c-structure rules (as proposed first by Grimshaw (1982) for French), which represent clitics as sisters of  $V^0/I^0$  and daughters of V'/I'.

In (35b), the genitive clitic *ne* encodes the  $OBL_{\theta}$  of the verb *parlare* 'to talk', which must bear GENITIVE as value for CASE. Nonetheless, the "search space" where CL nodes can retrieve their GFs has to be constrained. As a matter of fact, GFs contained in COMP ((36a)-(36b)) and XCOMP ((37a)-(37b)) seem to be unavailable:

(36)	a.	Marcolino promette che farà i compiti
		M. promises that do-FUT.3SG the homeworks
		'Marcolino promises that he will do his homework.'
	b.	*Marcolino li promette che farà
		M. ACC.3PL.M promises that do-FUT.3SG 'Marcolino promises that he will do it.'
(37)	a.	Matteo vede Stefano dare un regalo a Susanna M. sees S. give-INF a present to S. 'Matteo sees Stefano give a present to Susanna.'
	b.	*Matteo le vede Stefano dare un regalo

M. DAT.3SG.F sees S. give-INF a present 'Matteo sees Stefano give her a present.'

Also GFs realized as clauses have this "island"-effect:

- (38) a. che i deputati non vadano in parlamento è una that the deputies not go-SUBJUNCTIVE-3PL in parliament is a vergogna shame 'that deputies don't go to the parliament is a shame.'
  b. \*che i deputati non vadano ci è una vergogna
  - that the deputies not go-SUBJUNCTIVE-3PL LOC is a shame 'that deputies don't go there is a shame.'

The right generalization to be captured thus seems to be that the "search space" cannot cross a GF that contains a SUBJ. This can be easily represented by means of a functional uncertainty path, restricted by an off-path constraint:

$$(39) \qquad (\uparrow GF^* GF) = \downarrow \\ \neg(\rightarrow SUBJ)$$

Moreover, GFs contained in a SUBJ are excluded as well<sup>9</sup>:

(40) a. il trailer del documentario è molto bello the trailer of-the documentary is very nice 'the trailer of the documentary is very nice.'

<sup>&</sup>lt;sup>9</sup>Rizzi (2001:540-1) claims that also adjuncts are "islands" for this kind of mapping. He provides sentences involving copular verbs, like \**Gianni le è felice accanto* 'Gianni is happy beside her'. Nonetheless, grammatical sentences can be easily found where a clitic pronoun encodes the OBJ of an ADJ function: *i bambini ci giocano sopra* 'the kids play (while being) on it'. The ungrammaticality of the sentences provided by Rizzi seems thus to depend on the verb type, or on its lexical semantics.

b. \*il trailer ne è molto bello the trailer GEN is very nice 'its trailer is very nice.'

The expression in (39) must be then further constrained. The final version of the functional uncertainty (to be annotated on CL nodes) is then:

(41) 
$$(\uparrow GF^* - SUBJ GF) = \downarrow \\ \neg(\rightarrow SUBJ)$$

The annotated c-structure rules (already implemented in an XLE-grammar fragment for Italian) would look like as follows:

	$\mathbf{I}'$	$\longrightarrow$	 (CL)	(CL)	 $\mathbf{I}_0$
			$(\uparrow \text{GF}^* - \text{SUBJ GF}) = \downarrow$	$(\uparrow \text{GF}^* - \text{SUBJ GF}) = \downarrow$	$\uparrow = \downarrow$
(12)			$\neg (\rightarrow \text{SUBJ})$	$\neg (\rightarrow \text{SUBJ})$	
(42)			$((\downarrow CASE) =_c DAT) \lor \\ ((\downarrow CASE) =_c LOC)$	$((\downarrow CASE) =_c ACC) \lor ((\downarrow CASE) =_c GEN) \lor ((\downarrow CASE) =_c ABL)$	
	$\mathbf{V}'$	$\longrightarrow$	 (CL)	(CL)	 $\mathbf{V}^0$
			$(\uparrow \mathrm{GF}^* - \mathrm{SUBJ} \mathrm{GF}) = \downarrow$	$(\uparrow \mathrm{GF}^* - \mathrm{SUBJ} \mathrm{GF}) = \downarrow$	$\uparrow=\downarrow$
(12)			$\neg (\rightarrow \text{SUBJ})$	$\neg (\rightarrow \text{SUBJ})$	
(43)			$((\downarrow \text{CASE}) =_c \text{DAT}) \lor$	$((\downarrow \text{CASE}) =_c \text{ACC}) \lor$	
			$((\downarrow CASE) =_c LOC)$	$((\downarrow CASE) =_c GEN) \lor$	
				$((\downarrow CASE) =_c ABL)$	

Whereas the annotation in (41) will be associated to every CL node, linear order constraints exhibited in clitic clusters (i.e., DATIVE > ACCUSATIVE) can be easily represented by means of additional constraining equations, as can be seen in (42) and (43). Accordingly, DATIVE and LOCATIVE clitic pronouns are forced to be associated to the first CL-slot, ACCUSATIVE, GENITIVE and ABLATIVE ones to the second.

These c-structure rules, together with their respective functional annotations, will license the second type of mapping discussed above, which appears not only in structures involving the locative Ps examined in this paper, but also in other, unrelated constructions.

## 5 Conclusion

In this paper, I considered Italian Particle-Verb Constructions where the "Ground" argument of the spatial particle is realized, either as a PP or as a case-marked clitic pronoun. Resorting to three different tests (licit c-structural realization possibilities, resumption in Clitic-Left-Dislocation contexts, Binding of anaphoric adjective *proprio*), I showed that the "Ground" cannot be represented as a clause-level GF at f-structure: subsequently, it cannot be maintained that the construction features a GF-assignment different from that of the verb (e.g. as a result of either Com-

plex Predication or Applicativization). Whereas the mapping from c-structure to f-structure involved in constructions featuring complex PPs can be viewed as a "trivial" one, the one exhibited by sentences with clitic pronouns is more complex, and instantiates as general  $\phi$ -projection mechanism (feasible to be represented by means of a functional uncertainty), available for CL nodes in many other unrelated constructions. CASE-properties of both clitic pronouns and GF-taking lexical items were showed to be crucial for this last mechanism to apply successfully. Moreover, in the analysis presented here the "apparent" spatial particles under scrutiny were showed to be actually a particular sub-class of P-elements displaying prepositional (and not particle-like) syntax. Their distinctive property is the ability to lexically impose CASE-requirements on their governed OBJs. These results may contribute to a better understanding of the phenomenon of "Particle Verbs" in Italian.

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