On merging positions for arguments and adverbs in the Romance Mittelfeld

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1. Introduction

The major aim of this paper is to propose a computational system based on multiple phases capable of accounting for the positioning of the arguments and of the verb in the domain of the clause referred to as the Mittelfeld. This paper will be mainly concerned with the Romance Mittelfeld though numerous references will be made to English.

The assumption will be made that the domain situated between the complementizer system and the VP-shell consists of Cinque’s (1999) functional hierarchy of adverbs and of recursive chunks of A-positions interspersed among each adverb class. The hypothesis to explore is that all arguments must leave the VP-shell in order to have their A-features (Case, phi-features) as well as their IS-features (topic, focus etc) checked/matched. It ensues that scrambling is applicable not only to OV languages like German or Japanese but also to VO languages like English and the Romance languages. Variations in the Information Structure in the Romance languages are responsible for the different configurations found in these languages, esp. with respect to adverb intervention. The configurations to focus on are: (i) SVO, (ii) VSO, and (iii) VOS and the languages to consider are French, Italian, Romanian and Spanish.

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1.1. The Framework

The paper adopts Kayne’s (1994) phrase structure theory where the operation Merge forms \([XP \text{ Spec } X \text{ Compl}]\) configurations, no further merge of either multiple specifiers or of adjoined elements being possible. Adverbs are thus merged as unique specifiers of semantic-functional projections (Cinque 1999, 2002, Laenzlinger 2000, 2004). Adverbs, and adjuncts in general, are not thematically selected. They must however be semantically licensed in their syntactic position, they must be part of the narrow syntax since they are LF-dependent. Their analysis as specifiers is linked to Cinque’s (1999) proposal that they are associated with different semantic projections which are provided by UG.

As hinted at above, the cartographic approach to the clause structure is involved here, the clause structure extending from the thematic VP domain, which contains only the lexical verb and its arguments up to the discourse-related CP domain. Within the framework of the cartographic approach (Belletti 2004, Cinque 2002, Rizzi 1997, 2004a,b), the intermediate inflectional space, equated to the Mittelfeld, constitutes a domain rich in functional projections.

1.2. A-positions within the Mittelfeld

The sentences in (1) show that there must be floating positions for the verb and the object among the fixed positions of the three adverb classes.

\[
\begin{align*}
\text{(1) a. Jean a & probablement lu souvent la Bible attentivement} \\
& \text{Jean has probably read often the Bible carefully} \\
\text{b. Jean a & probablement souvent lu attentivement la Bible} \\
& \text{Jean has probably often read carefully the Bible} \\
\text{c. Jean a & lu `probablement la Bible souvent attentivement} \\
& \text{Jean has read probably the Bible often carefully} \\
\text{d. Jean a probablement lu souvent attentivement la Bible} \\
& \text{‘John probably often read the Bible carefully’}
\end{align*}
\]

The Mittelfeld in the cases above represents the domain of adverb licensing, i.e. it consists of the projections hosting the adverbs *probablement* ‘probably’, *souvent* ‘often’, *attentivement* ‘carefully’. This domain also contains the projections hosting the moved arguments, i.e. the DP object *la Bible* ‘the Bible’ and the verb *lu* ‘read’. In order to identify these positions, the following hypothesis couched in terms of a principle is made (2). This
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proposal goes against Alexiadou and Anagnostopoulou (2001) who assume that one argument must remain in the VP-shell.¹

(2) Full VP Evacuation Principle:
“All arguments must leave the vP domain in order to have their A-features (i.e. Case and phi-features) and I-features (i.e. informational features such as top, foc) checked/matched/assigned a value in the overt syntax.”

To put it in a nutshell, the Mittelfeld contains not only the adverb-related functional projections but also the verb- and DP-related positions. In order to provide a uniform account of the cross-linguistic facts evinced by the Romance languages under investigation, a system of SVO recursive chunks interspersed among the adverb-related projections is proposed.² Such SVO chunks can potentially merge between every semantic-functional projection, as illustrated in (3).³

¹ Recall that no adverb merges in the VP-domain, contra Alexiadou and Anagnostopoulou (2001:206).
² A chunk can be even more complex, i.e. in the case of multiple complements.
³ The advantage of the system proposed here can be extended to account for data from Hungarian, a discourse-configurational language, or Greek.
Derivationally, after having merged within the VP-shell, the verb and its arguments are attracted to the relevant positions among the adverb-related projections. The subject targets the specifier position of SubjP, the equivalent of what was called AgrsP or TP, that is, the position where the subject phi- and Case(NOM)-features coupled with the EPP-feature can be matched. As for the object, it is attracted to Spec-ObjP, corresponding to the former AgroP (Belletti 1990) or to Chomsky’s (1995) AspP, responsible for
Case(ACC)-feature checking. Since a specifier can be projected, the Obj is also associated with abstract phi-features and an EPP-feature.

As regards the lexical verb, it targets an inflectional projection, InflP (corresponding to AuxP in compound tenses), for checking morphoselectional features (Aux-V\textsubscript{past participle} selectional checking in compound tenses). Verb movement is analysed as head-movement in the Principles & Parameters theory (Pollock 1989). More recently, following Koopman and Szabolcsi’s (2000) framework, verb movement can be implemented as remnant VP-movement (Majahan 2000); see also Laenzlinger (2004) for a detailed analysis). The latter approach will be tentatively adopted in this paper. In addition to the selectional feature checking requirement, verbal elements have uninterpretable phi-features which are checked on the head Subj for subject-verb agreement. More precisely, Subj attracts the conjugated auxiliary/lexical verb, thus realizing a Spec-head configuration with the DP subject, if present in the structure. Alternatively, V-phi-features are checked via downward Agree with a lower subject.

In the A-feature system put forth here, the phi-features can be checked/erased in the local relation [Spec-SubjP]-Subj˚ in the word order SVO. In the word order VS(O) or V(O)S, the phi-features are checked via downward Agree (Chomsky 2001), thus an equally local relation obtaining between the head Subject and its specifier, which is lexically realized lower in the structure. The [Spec-SubjP] hosts an expletive pro which is required for EPP-feature checking, this being in line with Rizzi’s (2004c) Subject Criterion. The Nominative Case feature is checked/erased in a Spec-head relation of a SubjP projection in a high (SV) or low (VS) “chunk”. Insofar as the Accusative case is concerned, little is said in the Minimalist Program (2000) and, in a manner similar to Nominative, we assume that besides the Spec-head relation obtained between [Spec-ObjP] and the head Obj˚, the checking/erasure of the uninterpretable Accusative Case can be realized by the mechanism Agree in the word order VSO. The head Obj also contains phi-features such as number and gender which are activated in a configuration where the object DP raises above the participial verb (Kayne 1989). As known, only French and Italian display overt agreement, while Spanish and Romanian do not. This issue will be taken over in section 2.3.

According to the principle stated in 2, besides the set of A-features, arguments move to check features related to the Information Structure (henceforth IS) as well. The Information Structure as envisaged here is organised in function of the chunks, i.e. in the Lexical Array every major constituent of the sentence is assigned a certain value of informational prominence, which amounts to saying that every chunk can potentially be marked for different values of the topic and focus features or simply remain
unmarked for either feature (for a different view see Vallduvi’s 1992 Information Packaging, Lambrecht 1994, Choi 1999, Büring 2003). In other words, it potentially contains different types of Foci, such as a Mittelfeld-internal low new information Focus in the sense of Belletti (2001, 2004) or a contrastive Focus in the CP domain in the sense of Rizzi (1997), a Topic-aboutness in the upper layer of the Mittelfeld or a Topic-comment in the CP. IS is thus expressible in terms of such value-assignment to various constituents in various chunks. Put differently, IS is mapped onto syntactic constituents and this mapping is a parametrisable function of the language under investigation and context as well. More research is needed to develop a sound theory of information structure meant to capture the subtle meaning differences resulting of the various distribution of arguments among the adverbs in a sentence.  

Argument realization in the chunks thus becomes dependent not only on the positions available for phi- and Case feature checking, but also on different value assignment of informational prominence features. A word of caution is needed here: no IS is associated with the vP. It may emerge evident that the EPP feature has a special status in the system proposed here in the sense that, along minimalist lines (Chomsky 2000), it is responsible for movement and, at the same time, it seems to be intimately connected to IS. For instance, its presence on the head Subj attracts movement of the DP in the specifier position and, in the light of the above discussion, a certain value of informational prominence may be assigned to the moved argument.

1.3. More on SVO Chunks and the Computational System

According to (3) every SVO chunk marks a phase from one adverb-related projection to another. We depart from the view (Chomsky 2001) that only vP and CP are phases which mark a cycle/barrier, that they are movable and thus being sent separately to Spell-Out and propose instead that there are as many phases as there are SVO chunks. Thus, the intermediate chunks between the semantic-functional projections serve as escape-hatches to movement, as represented in (4).

(4) \[ \text{[MoodP SVO [ModeP SVO [TP SVO [AspP SVO [VoiceP SVO [vP …. ]]]]]} \]

One interesting approach to Information Structure is put forth by López and Villalba (2000) who take the phase as the IS unit thus developing an Information Structure at the v phase and another at the C phase.

This is in accordance with Chomsky’s (2001) Phase Impenetrability Condition.
Within such a system the ‘cycle’ property of phases derives the order S-(V)-O, the one originally merged within the VP-shell. Successive movement of the object, the verb (projection) and the subject is represented in (5).

(5) Following a multiple Spell-Out approach\(^6\) (Uriagereka 1999, Platzack 2001, Grohmann 2003), at the end of each phase, the derived substructure is sent to the interface (PF and LF) for interpretation. The grammar system has the representation in (6). Information Structure is also considered an interface interacting with PF (i.e. stress in focalisation) and LF (i.e. covert movement of Focus).

In the light of these theoretical considerations, the following sections will centre on the distribution of adverbs in the word orders SVO, VSO and VOS in English and the Romance languages under investigation: French, Italian, Romanian and Spanish.

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\(^6\) The multiple Spell-Out approach raises the question of multiple access to LF, which leads to the compositional semantics of the clause, which is not adequate for a full interpretation of the propositional content of the clause.
2. Verb-Argument-Adverb Orders in the Mittelfeld

2.1. Unmarked SVO: English and French

The word order SV(O) represents the underlying word order in the two non-null subject languages. Consider first the case of high adverbs.

(7)  a. [MoodP Fortunately [SubjP John read the book]]
    b. [MoodP Heureusement [SubjP Jean a lu le livre]]

‘Fortunately Jean read the book.’

Mood adverbs are perfectly acceptable in sentence-initial position which, barred the existence of a topic, represents their merge position, i.e. [Spec-MoodP] in (7). The subject DP can float very high in the upper Mittelfeld, i.e. above such adverbs to check the EPP, phi and Case features (8a). Conversely, French does not allow any adverb in between the subject position and the auxiliary/verb in the head SubjP (8b). One micro-parametric property of French is that feature-checking of the subject and the auxiliary/conjugated verb must be realized in a Spec-head configuration.

    b.*Jean heureusement/probablement/souvent/récemment a lu ce livre.

‘Jean fortunately/probably/often/recently has read the book.’

Turning to the epistemic adverb probably, the examples below show that it may fill its root-merge position, at the boundary between the Mittelfeld and the Vorfeld in (9a). The corresponding French sentence in (9b) allows only a parenthetical reading of the adverb. As with the case above, the DP subject in (9c) can target the appropriate position in a chunk above ModP in English,
such a possibility is ruled out in French due to the violation of the adjacency subject-auxiliary/verb, as indicated by the ungrammatical (9d). In (9e,f), a chunk made up of the subject and the auxiliary is positioned above ModP. In English and French, its sentence-final position results in a parenthetical reading, as illustrated in (9g,h). However, French displays one more alternative in which this high adverb may intervene between the participial verb and the object DP (9j), English displaying the well-known Case-resistance constraint (9i). Translated into the theory of chunks, Stowell’s (1981) constraint forces the verb and the nominal DO to occur within the same (S)VO chunk.

(9) a. Probably John has read the book.
   b. Probablement, Jean a lu le livre.
   c. John probably has read the book.
   d.*Jean probablement a lu le livre.
   e. John has probably read the book.
   f. Jean a probablement lu le livre.
   g.*John has read the book probably/(ok, probably).
   h.*Jean a lu le livre probablement/(ok, probablement).
   i. *John has read probably the book.
   j. ?Jean a lu probablement le livre.

Let us further consider the examples containing a TP anterior adverb like recently or an AspP frequency adverb like often.

(10) a. Mary has (often/recently) read (*often/*recently) the book (often/recently).
    b. Marie a (souvent/récemment) lu (souvent/récemment) ce livre (souvent/récemment).

In (10a) the adjacent constituents, the verb and the direct object check their features in a position higher than both the AspP frequency licensing the adverb often and the TP licensing the adverb recently. In French (10b), the participial verb can float to a position preceding or following the time and aspect adverbs. In order to account for the verb always preceding the direct

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7 It is not the aim of this paper to tackle the issue of parenthetical phrases.
8 The function of probably as a phrasal modifier is not considered here.
9 As suggested by Ur Shlonsky (personal communication), the direct object DP in English is a light element being morphologically/prosodically poor. Informationally, they are weak elements and, as such, must belong to the same chunk as the verb. This view finds support in the process of heavy NP-shift. If the object is a heavy DP as well as a PP or CP, it acts as a free element with respect to the verb.

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object in the Mittelfeld in English as well as in Romance (only as far as the SVO word order is concerned), the condition must be observed that the verb c-command the direct object DP.

(11) CP

\[ \text{SubjP} \]
\[ \text{DP} \]
\[ \text{Subj'} \]
\[ \text{Aux} \]
\[ \text{InflP} \]
\[ \text{VP}_{PP}^{10} \]
\[ \text{ObjP} \]
\[ \text{DP} \]
\[ \text{ModP} \]
\[ \text{AdvP} \]
\[ \text{…InflP} \]
\[ \text{VPPP} \]
\[ \text{ObjP} \]
\[ \text{DP} \]
\[ \text{TP}_{ant} \]
\[ \text{AdvP} \]
\[ \text{…InflP} \]
\[ \text{VPPP} \]
\[ \text{ObjP} \]
\[ \text{DP} \]
\[ \text{AspP}_{freq.} \]
\[ \text{AdvP} \]
\[ \text{…InflP} \]
\[ \text{VPPP} \]
\[ \text{ObjP} \]
\[ \text{DP} \]
\[ \text{vP} \]

John has *read *the book probably recently often
Jean a oklu okle livre probablement récemment souvent

To sum up, the moved arguments and verbs’ positions among the functional projections of the mode, time and aspect adverbs considered thus

10 $\text{VP}_{PP} = \text{VP}_{Past \text{ Participle}}$
far are provided in (11) above. As the structure above shows, in French the auxiliary must move very high, i.e. to a head Subj in the upper Mittelfeld in order for the Spec-head configuration to obtain.

Finally, let us consider argument floating with respect to unambiguous manner adverbs such as beautifully and merveilleusement ‘beautifully’.

(12)  a. John has sung this song beautifully.
     b. John has beautifully sung this song.
     c.*John beautifully has sung this song.
     d.*John has sung beautifully this song.
     e. Marie a chanté la chanson merveilleusement.
     f. Marie a chanté merveilleusement la chanson.
     g. Marie a merveilleusement chanté la chanson.

‘Marie has sung the song beautifully.’

Examples (12a,e) show that a whole chunk made up of the subject, auxiliary, participial verb and object may float to their appropriate positions above the adverb-related projection. Alternatively, in both languages only the subject and the auxiliary can target higher positions (12b,g). Contrary to other classes of adverbs, a manner adverb can only marginally occur between the subject and the auxiliary in English, as illustrated in (12c). As already pointed out, the ungrammaticality of (12d) can be accounted for in terms of a violation of the requirement that the verb and its nominal direct object occur within the same chunk. In French, a chunk consisting of a subject, auxiliary and participial verb may alternatively occur higher than the adverb, with the object remaining in a lower position in the space between VoiceP and vP, as (12f) shows.

Mention must be made at this point that the variable floating nature of the chunks conducive to word order variations with adverbs does not solely

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11 Further evidence for the existence of several derived positions of the arguments in the Mittelfeld comes from floating quantifier placement. Whatever the approach adopted, a floating quantifier must be in a local relation with respect to the associate subject/object, as illustrated in (i).

(i) Ces filles, les professeurs les ont (récemment) tous (récemment) toutes
     these girls the professors them-have recently all masc recently all fem
     (récemment) félicitées.
     recently congratulated

Though the sentence contains a topicalised direct object, the co-occurrence of a subject and object floating quantifiers must observe the strict order Subj>Obj. Their variable position with respect to the time adverb further shows that there are several intermediate positions for the subject and object to have landed in.
depend on morpho-syntactic properties (the A-system). The role of adverbs in information structure is not very well known. To our knowledge, very few analyses exist on the topic and particular attention should be paid to this issue especially given the view of the apparently ‘free’ placement of (some) adverbs. Consider, for instance, the placement possibilities of the manner adverb around the participial verb and its object in French in (12e-g). The sentence final position of the adverb in (12e) is appropriate if the adverb conveys new information, i.e. as an answer to the question “Comment a-t-il chanté la chanson?” “How did he sing the song?” , in which case the verb and its object are informationally unmarked and target a chunk above VoiceP, at the centre of the Mittelfeld. According to the analysis, this space is the locus of neutral information. When the adverb is preverbal, as in (12g), it overtly marks its scope to the verb plus its complement, which remain in a chunk below VoiceP. Finally, the order in (12f) results in an informational balance among of the verb, the adverb and the object. The verb occurs in a chunk above VoiceP, while the object is located in a chunk below VoiceP. The conclusion we can draw from such observations is that the distribution of constituents among the different chunks is necessarily triggered by information structure.

2.2. Marked SVO: Italian, Spanish and Romanian

One common property of these languages is that the preverbal subject is assumed to bear a topic-like feature in the sense that, as Rizzi (2004c) puts it, if events are conceived of in the subject-predicate format, the description of an event may start by selecting an argument, with the event presented as being about that argument. Therefore, preverbal subjects in these null-subject languages share the features [+aboutness, -D-linking] that they can check in [Spec-SubjP]. The Topic feature, strongly connected to the IS interface is thus checked together with Case, phi- and the EPP features present on the featural make-up of the head Subj. An answer taking on the form SV(O) can be given to a question like “What about X?” Though more marked, the subject is still part of the Mittelfeld.

Argument floating among the same adverb classes will be analysed in this section. Let us first consider MoodP adverbs.

As far as Spanish is concerned, there seems not to be a consensus as to its basic word order. Some linguists (Suñer 1994, Ordóñez 2000) consider that the basic order is SVO, yet allowing its subject to appear postverbally, while others (Zubizarreta 1998, Costa 2001) claim that the basic word order is VSO. However, in chapter 2, fn. 3, Ordóñez himself considers examples in which the answer to the question “Qué pasó?” “What happened?” is given in the order XP/que V S O. Spanish will be taken in this paper to have VSO as the unmarked order.
(13)  a. Francamente Gianni si era formato una pessima opinione di voi.
    ‘Frankly Gianni had a very bad opinion of you.’
  b. Gianni francamente si era formato una pessima opinione di voi.
  c. Evidentemente (,) Maria dirá la verdad.
    ‘Evidently, Maria will tell the truth.’
  d. Maria felizmente ha leido este libro.
    ‘Fortunately Maria read this book.’
  e. Din fericire, Ion a citit cartea.
    ‘Happily Ion read the book.’
  f. Ion, din fericire, a citit cartea.

As the Italian sentences (13a,b) show, a subject position may be available in the upper Mittelfeld, the same holding true for Spanish though, according to some speakers, such adverbs may be parentheticals (13c,d). In Romanian (13e,f), such high adverbs, i.e. MoodP_evaluative, MoodP_evidential and MoodP_speech-act have a parenthetical reading, whatever their position in the sentence.13

Insofar as the epistemic adverb probabil ‘probably’ is concerned, the three languages pattern with English in that a subject position may be projected above it, as illustrated in (14a,b,c). One parametric variation of Spanish and Romanian is that they both exhibit the auxiliary-verb adjacency which can be accounted for in terms of one-step movement of Aux˚ to Subj˚.14 As the example in (14d) shows, Italian exhibits only auxiliary raising above the functional projection of the adverb, participial verb movement above the epistemic adverb is not allowed (14e), while in Romanian the chunk DP_subj-Aux-VP_PP may occur above ModP as in (14f). Spanish opts for none of the three possibilities.

(14)  a. Gianni probabilmente ha letto il libro.15
    Gianni probably has read the book
  b. Ion probabilmente ha citit cartea.
    Ion probably has read the-book
  c. Juan probabilmente ha leído este libro.
    Juan probably has read this book

13 Romanian exhibits classes of adverbs in which an adverb has an adverbial PP counterpart, the latter having a higher frequency of language use. A case in point is the class of MoodP_evaluative adverbs which contains only PPs, such as: in mod regretabil ‘regretably’, in mod neastepat ‘unexpectedly’, din (ne)fericire ‘(un)fortunately’.
14 In Romanian the auxiliary-verb adjacency can be interrupted only by a restricted class of clitic adverbs.
15 To some speakers the adverb in this configuration does not display a parenthetical use.
d. Gianni ha probabilmente letto il libro.
e.*Gianni ha letto probabilmente il libro.
f. Ion a citit probabil cartea.

It has been seen above that the subject can raise very high in Italian, Spanish and Romanian, which means that different adverb classes may appear between this position and that of the verb. Such is the case of time and aspect adverbs, as illustrated in (15a-c) below for Spanish and Romanian.

(15)  a. Juan recientemente/a menudo ha leído este libro. (Spanish)  
Juan recently/often has read this book.
b. Ion recent/RECENT a citit această carte. (Romanian)  
Ion recently has read this book.
c. Ion adesea/ADESEA a citit această carte.  
Ion often has read this book.
d. Gianni *recentemente/*spesso ha letto questo libro. (Italian)  
Gianni recently/often has read this book

e. Gianni ha recentemente/spesso letto questo libro.
f. Gianni ha letto recentemente/spesso questo libro.
g. Gianni ha letto questo libro recentemente/spesso.

Interestingly, Romanian seems to accommodate a Mittelfeld-internal Focus position hosting the two adverbs (as will be seen, a manner adverb can as well be focalised). This process of clause-internal focalisation remains mysterious on syntactic grounds. Either the focalised adverb occurs in its root-merge position where it is stressed (in-situ Focus), or it is displaced in a Mittelfeld-internal FocusP. Though exemplified only for Italian (15g), the three languages are alike in that a chunk containing the participial verb and the object may precede the adverbs under analysis. Alternatively, the object DP may remain lower in the structure, as illustrated in (15f). As already mentioned, Italian does not display the auxiliary-verb adjacency and thus the two adverbs may occur in between, as seen in (15e). However, Italian departs from Spanish and Romanian in not allowing a subject position right above the two adverb classes (15d).16

Argument floating is further analysed with respect to truly manner adverbs. As illustrated in the examples in (16a,b), Italian and Spanish pattern with French in that a pre-auxiliary position of the adverb leads to a

16 Surprisingly, as seen above, the DP subject can move above ModeP and MoodP.
parenthetical reading of the adverb. Romanian does not project a subject position above the manner adverb (16c). The three languages exhibit the same behaviour with respect to object and participial verb movement to [Spec-ObjP] and [Spec-InflP] in a chunk above VoiceP. The structure in (17) provides the movement possibilities of the sentences below.

(16) a. Juan (,glotonamente,) ha comido (glotonamente) la manzana (glotonamente). (Spanish)  
   ‘Juan ate the apple greedily’.

b. I bambini (,dolcemente,) hanno (dolcemente) accarezzato (dolcemente) il gattino (dolcemente). (Italian)  
   ‘The children caressed the cat gently.’

c. Copiii (*frumos) au împachetat (frumos) cadourile (frumos).  
   ‘The children wrapped up the presents beautifully.’ (Romanian)

(17) …ModifP

Frumos  copiii  au  împachetat cadourile frumos  *au  *împach. cadourile

I bambini hanno accarezzato il gattino dolcemente hanno acc. il gattino
Glotonamente Juan ha commido la manzana glotonamente *ha commido la manzana

17 Spanish also exhibits a Mittelfeld-internal Focus position hosting only manner adverbs in the pre-auxiliary position.
The structure above also contains the [Spec-ModifP] at the left periphery of the clause. Such a position is activated only in Spanish, while the clause-initial position of (unambiguous) manner adverbs in Romanian results in their parenthetical use.

To sum up this section, the three Romance languages make available a SubjP in the upper Mittelfeld where the moved subject checks the Topic-like feature, intimately connected to IS, this position can be above MoodP adverbs Italian and Spanish but not higher than ModP_{epistemic} adverbs in Romanian.

2.3. The Word Order VSO

As mentioned in the previous section the word order VSO is more natural in Romanian and Spanish and may constitute an appropriate answer to a question like “What happened?” As noted by Belletti (1999) and as will be discussed below, VSO is impossible in Italian. Another major difference between Italian and the two languages is that in cases of free inversion an adverb may follow the postverbal subject only in latter. Compare (18a) to (18b,c,d).

(18) a. Ha mangiato Gianni *golosamente/*a volte/*recentemente.
   ‘Gianni has eaten greedily/sometimes/recently’. (Italian)
   b. Ha mangiato golosamente/a volte/recentemente Gianni.
   c. Ha llorado Juan recientemente/a menudo/discretamente.
   ‘Juan has recently/often cried gently.’ (Spanish)
   d. A plâns Ion recent/adesea/zgomotos.
   ‘Ion has recently/often cried /noisily.’ (Romanian)

The subject, which expresses unmarked information, can float above VoiceP, AspP and TP in Romanian and Spanish. Alternatively, the floating subject can remain in a chunk below and among the adverb-related projections. This is represented in (19).

(19) [SubjP Aux [InfP V_{pp} [SubjP Subj [TP Adv [SubjP Subj [AspP Adv [SubjP Subj [VoiceP Adv [SubjP Subj […]]]]]]]]]

However, in Italian, an adverb can only precede the subject, which means that in the system proposed here the postverbal subject in (18b) fills the
appropriate position in the lowest chunk, this lowest subject position being marked as ‘new information’ focus.

Among the adverb classes considered thus far, all except mood and mode adverbs (unless parenthetically used) may occur in the postverbal domain between the participial verb and the subject, as illustrated in (20a) for Romanian and (20b) for Spanish.

\[(20)\]

a. A citit probabil/recent/adesea/atent Ion această carte.
   Has read probably/recently/often/carefully Ion this book.
   ‘Ion probably/recently/often/carefully read this book.’ (Romanian)

b. A leído probablemente/recientemente/a menudo/atentamente Juan
   Has read probably/recently/often/carefully Juan
   este libro.
   this book.
   ‘Juan probably/recently/often/carefully read this book.’ (Spanish)

Such data can be interpreted in terms of participial movement to a chunk above VoiceP, AspP and ModeP. These adverbs may occur after the subject, which means that the subject DP can alternatively check its features in a position above these adverb classes, the object remaining in a lower chunk, as illustrated in (21) below.

\[(21)\]

a. A citit Ion probabil/recent/adesea/atent această carte. (Romanian)
   Has read Ion probably/recently/often/carefully this book.
   ‘Ion probably/recently/often/carefully read this book.’

b. A leído Juan probablemente/recientemente/a menudo/atentamente este libro. (Spanish)
   Has read Juan probably/recently/often/carefully
   atentamente este libro. (Spanish)
   ‘Juan probably/recently/often/carefully read this book.’

It is to remark that movement of the subject past the object, both being nominal chains, does not induce any minimality violation effect in either Romanian or Spanish but does so in Italian, hence the impossibility of the word order VSO (*Ha letto Gianni questo libro). We suggest that the explanation for the absence of intervention effects is to be sought in the process of clitic doubling. Following proposals on clitic doubling constructions (Uriagereka 1995, Belletti 1999), we assume that nominal direct objects in clitic doubling languages are more than DP categories. More precisely, they always project a PP, with a dummy preposition and an
overt clitic if the object is doubled as in (22a,b), or with an empty preposition and a null clitic if it is not doubled, as in (22c,d).

(22)  a. L-a văzut pe el/Ion. (Romanian)
     HimCP-has seen pēAccprep him/Ion.
     ‘S/he saw Ion.’
   b. Lo vimos a el/Juan. (Spanish)
     Him see a him/Juan.
     ‘We see Juan.’
   c. A citit cartea. (Romanian)
     Has read book-the.
     ‘S/he read the book.’
   d. A leído el libro. (Romanian)
     Has read book-the.
     ‘S/he read the book.’

Thus, the nominal direct object in Spanish and Romanian always projects a PP with the following root-merge structure.

\[
\begin{array}{c}
\text{PP} \\
\text{P} \\
\text{DP} \\
\text{D} \\
\emptyset \text{cartea} \emptyset \\
\text{pe} \text{Ion l-}
\end{array}
\]

Being a PP, the nominal object does not act as an intervener with respect to the displaced subject. The word order VSO in which both DPs are nominal is ruled out in Italian because it does not display clitic doubling with direct objects, a minimality violation being induced on the subject’s chain \textit{Gianni})\textsuperscript{18,19}

\textsuperscript{18} In cases where the internal complement of the verb is a PP or a CP, the word orders V S PP and V S CP are grammatical in Italian, the former being, however, slightly marginal.

(i) ?Ha telefonato Gianni a Maria.
    Has phoned Gianni to Maria.
    ‘Gianni phoned Maria.’
To conclude the discussion on floating arguments, time, aspect and manner adverbs can occur sentencefinally, i.e. they follow the object. In this position mood and mode adverbs must be parentheticals. In other words, the object can reach a chunk above VoiceP, AspP and TP, but not above ModP.

2.4. The Word Order VOS

Italian, Spanish and Romanian also exhibit the word order VOS though things are more complicated in Italian. As Belletti (2001) argues, this word order is highly restricted in Italian since the verb and the direct object must constitute directly accessible ‘given’ information, or reiterates the information contained in the question, as seen in (24) below.

(24) A: Chi ha letto questo libro?
   Who has read this book
   ‘Who read this book?’
   ‘Gianni read this book.’

Romanian and Spanish allow VOS without such a contextual restriction, the postverbal subject filling the new information focus.

(25) a. A citit cartea Ion. (Romanian)
   Has read book-the Ion.
   ‘Ion read the book.’

b. A leído este libro Juan. (Spanish)

(ii) Ha detto Silvia che ha telefonato Gianni.
   Has said Silvia that has phoned Gianni.
   ‘Silvia said that Gianni phoned.’

In (i) the nominal object which is a PP is not an intervener on the subject’s chain, PP’s being autonomously licensed. Within the framework proposed here, the clausal object in (ii) is analysed as filling the lowest object position. As a matter of fact, the only position it can fill is sentence-final, its raising past the subject would lead to ungrammaticality. The clausal object’s occupying the lowest object position may be related to its informational weight, i.e. it must occur at the right edge of the sentence because it is a heavy element in need of checking some feature associated to information structure. As Belletti notes, a clausal object can however precede the subject with some verb classes.

19 An interesting consequence of the analysis of the Romanian/Spanish nominal direct object as PPs is that once displaced, they do not show past participial agreement, as opposed to French and Italian.
Ordóñez (2000) argues for Spanish that VOS structures are the result of scrambling of the object past the subject DP. Similar analyses were proposed for Romanian by Cornilescu (1997) and Alboiu (1999). For Italian, Belletti extensively argues for an analysis of such structures in terms of clause internal remnant topicalisation. The subject raises to the low new information focus position and the [VO] constituent containing the subject trace raises above, in the Spec of the TopP. Since the direct object is embedded in a larger constituent, the ObjP-SubjP chains do not show any intervention effects. Such an analysis in terms of remnant VP movement is not without problems as it presupposes that the object remains in the VP, which runs counter to the Full VP Evacuation Principle used throughout the analysis. Thus in (25) the verb and the object move separately to [Spec-InflP] and [Spec-ObjP], respectively, for feature-checking purposes.

Let us concentrate on Romanian and Spanish data taking into account the distribution of adverbs.

     ‘Ion recently/often/carefully read the book.’ (Romanian)
b. A leído (probablemente/recientemente/a menudo/atentamente) este libro (?)probablemente/recientemente/a menudo/atentamente) Juan (,probablemente/recientemente/a menudo/atentamente).
     ‘Juan recently/often/carefully read the book.’ (Spanish)

These sentences show that the two languages pattern alike in that a subject DP can raise to a position as high as TP and AspP, but not ModP (given the parenthetical reading of probably in sentence-final position). In such a position the subject is associated with a ‘floating’ new information Focus feature. In other words, the subject is attracted by the head Subj containing not only Case and phi-features, but also an EPP-feature associated with...

\[\text{\underline{20}}\] Within a somewhat similar vein, Ordóñez (2000) proposes a uniform analysis of the VOS word order for Spanish, Catalan, Italian and even French in terms of subject movement to the Focus position and object movement to a higher c-commanding position. His analysis includes LPR (light predicate raising) of the remnant TP with any XP that follows the subject scrambling out of the TP before LPR applies.

\[\text{\underline{21}}\] The time, aspectual and manner adverbs can marginally be focalised in Romanian when filling a position between the participial verb and the object in the order VOS.

\[\text{\underline{22}}\] Mention must be made that in Romanian the subject in VOS can also be associated with contrastive Focus feature. It may be suggested that there is raising of the focused DP followed by remnant IP movement to CP.

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Focus and determined by IS. The object DP is attracted to an Accusative Case position, i.e. [Spec-ObjP], which may range from VoiceP to AspP and TP, as indicated by the interference of such adverbs between the subject and the object, and between the participial verb and its object. The floating positions for the object and the subject are represented in (27).

(27) …SubjP

Mention must be made that in keeping with the analysis of clitic doubling advanced here, the nominal direct object in Romanian and Spanish is a PP and thus, unlike in Italian, the object does not act as a DP intervener in the subject’s chain in Romanian and Spanish. The representation in (28) shows that the nominal object as a PP is invisible to the probe and the Minimal Link Condition required for the operation downward Agree on the subject is observed. Such a configuration clearly holds for prepositional objects as well.
As a summation, among the micro-parametric properties of the three languages discussed in the configuration VOS, it is to mention that Subj-Aux agreement can be done by the operation downward Agree, that the subject is associated with a ‘floating’ new information focus feature, and, finally, that there is no intervention effect between Subj and Obj as the latter is a kind of PP category.

3. Conclusions

This paper has proposed a computational system based on multiple Spell-Out which is capable of accounting for word order variations in the Romance Mittelfeld taking as an essential criterion Cinque’s (1999) rigid hierarchy of adverbs. In so doing the Full VP Evacuation Principle has been forwarded according to which all arguments must leave the vP domain for A- and IS-feature checking. The role of IS has been pointed out, in the sense that it is intimately related to the EPP-feature. Arguments move in order to express some informational value, marked or unmarked, the information value they convey being organised in function of the chunks. The system described here relies on the existence of SVO chunks, interspersed among adverb-related projections, each chunk marking a phase. Based on the rigid position of adverb classes (mode, mood, time, aspect and voice adverbs have been considered here), it has been extensively showed that there are floating positions for the subject, object and verb in the configurations investigated, SVO, VSO and VOS. It seems, therefore, that the richer the A-system is, the more IS can avail itself of the system of chunks.

References


