A syntactic account of Romanian correlative coordination from a Romance perspective

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Abstract

This paper[†] examines the syntactic behaviour of two omnisyndetic coordinations (also called *correlative coordinations*), i.e. the disjunctive and the conjunctive types in Romanian, by explaining its data in a Romance perspective. Major issue has been whether these structures have symmetric or asymmetric structures. If all these Romance languages share a symmetric analysis for the disjunctive type Conj...Conj, it is not the case for the conjunctive type. Our aim is to show that the postulation of a conjunctional status for the Romanian structure si...si ('both...and'), which is the most widespread view in Romanian grammars, is inadequate for the Romanian data.

1 Introduction

In the literature on coordination phenomenon (see Haspelmath 2000, Huddleston and Pullum 2002, among others), one may find three main types of coordinate structures, with regard to the presence / the lack of the coordinator: i) *simple coordination*, when the coordinator appears with the last (or first¹) conjunct, and optionally with the other conjuncts (except the first one), cf. (1a-b); ii) *omnisyndetic* or *correlative coordination*, in which the coordinator seems to appear on each conjunct, cf. (2a-b), and, finally, iii) *asyndetic coordination*, when it is not overtly marked by a coordinator, but it is achieved by means of juxtaposition, cf. (3a-b).

(1)	a. Paul a appris [l'espagnol et le français].b. Paul has learnt [Spanish and French].	(French) (English)
(2)	a. Paul a appris [et l'espagnol et le français].b. Paul has learnt [both Spanish and French].	(French) (English)
(3)	a. Paul parle [l'espagnol, le français, l'anglais]. Paul speaks Spanish, French, English	(French)
	b. John invited [all his colleagues, all his students].	(English)

In this paper, we focus on the second type, the omnisyndetic structures, which a priori are more constrained than simple coordinations (cf. Mouret 2007, Mouret *et al.* 2008). The restrictions operating on the correlative

[†]Many thanks to Anne Abeillé, François Mouret, the audience of the HPSG08 conference and three anonymous reviewers for comments, as well as my informants for Romance data. All errors or misconceptions remain mine.

¹For head-final languages, like Korean or Japanese, for example.

coordinations include almost all levels of linguistic analysis: they concern syntactic, semantic, discursive and prosodic aspects. At the syntactic level, they are restricted with respect to the categories they conjoin, i.e. they conjoin maximal projections, but not words. From a semantic point of view, they accept only a Boolean reading. Let's take two examples in French (a priori available for other languages, too). If there is a conjunction of propositions, the conjunction et ('and') is ambiguous between a collective or distributive reading in simple coordination (4a), while it has only distributive reading in omnisyndetic structures (4b). We observe the same difference in the case of the disjunction of propositions: the conjunction ou 'or' has an inclusive or exclusive reading in simple coordination (5a), whereas in correlative structures, only the exclusive interpretation is available (5b).

- a. Paul et Marie se sont mariés.
 Paul and Mary married (together or not)
 b. Et Paul et Marie se sont mariés.
 Both Paul and Mary married (not together)
- a. Paul ou Marie viendront / viendra à la fête.
 Paul or Mary come.3pl/sg.FUT to the party
 b. Ou Paul ou Marie viendra à la fête.
 Either Paul or Mary come.3sg.FUT to the party

Finally, omnisyndetic coordination obeys a prosodic and discourse-related constraint, each conjunct being emphasized and forming an intonational phrase. These structures are compatible with focus and topic, but the relation involved by the doubled constituent obligatorily receives a contrastive interpretation.

Representative pairs we are concerned with in this study are the disjunction *either...or* and the conjunctive type *both...and*². Crosslinguistically, there are two main structures proposed in the literature:

- a) an asymmetric structure A (cf. (6a)), available for Germanic languages (such as English, German or Norwegian) (cf. Johannessen 2005, Hendriks 2004, Hofmeister 2008), where the initial element of the structure is a Focus Particle (with relatively free distribution, restrictions by focus and intonation, scopal effects), modifying the whole coordination, thus the term *initial coordination*.
- b) a symmetric structure B (cf. (6b)), available for French (cf. Piot 2000, Mouret 2005 and 2007) and for Romance languages more generally (and a priori for Japanese and Korean), where all coordinators represent the same

²We leave aside the negative pair *neither...nor* which generally behaves as the conjunctive type *both...and* (at least, in Romanian). We use these terms (disjunction type, conjunctive type) for the sake of simplicity.

conjunctions combining with each conjunct, hence the term *conjunction* doubling.

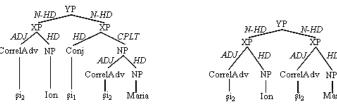
Some languages use both structure A and structure B; for example, French has two different structures for the additive coordination: an asymmetric structure \grave{a} la fois...et (7a) and a symmetric construction et...et (7b).

a. Jean lit [à la fois [en français et an anglais]].
 John reads both in French and in English
 b. Jean lit [[et en français] [et en anglais]].
 John reads both in French and in English

A superficial Romance overview may suggest a common analysis for all Romance languages, i.e. a symmetric structure. Romanian data show that we have to handle a hybrid case: a symmetric structure B for the disjunction type (cf. table 1), whereas for the 'additive coordination' we have two possibilities: an asymmetric structure with conjunction $(C_1, cf. (8a))$ or a symmetric one without conjunction $(C_2, cf. (8b))$, in both cases the correlative elements behaving like adverbials.

(8) a. Correlative Structure C₁

b. Correlative Structure C₂



The paper is structured as follows: In Section 2, we briefly mention the main distributional properties in Romance languages, and contrast French and Italian vs. Spanish and Romanian. In Section 3, we argue that, contrary to most Romanian grammars, Romanian elements si...si ('both...and') are (correlative) adverbs, rather than conjunctions. Finally, in Section 4, we give a syntactic analysis of the Romanian data within a construction-based HPSG framework.

2 Main properties of the correlative coordination in Romance

2.1 Forms of the coordinators

Table 1. Correlative coordinators of four Romance languages

	French	Italian	Spanish	Romanian
Disjunction	оиои	00	00	sausau
Type	ou bienou bien			oriori
	$soitsoit_c$			$fiefie_c$
	soit quesoit que _c			
Conjunctive	etet	$siasia_c$		şişi
Type	à la foiset	siache _c	a la vezy	

The index c in the left indicates that the form is always used in correlative structures.

A quick look at the table 1 shows that Spanish seems special, since it lacks the correlative pair *y...y (9d).³ A superficial examination of (9) would conclude that Romanian resembles French and Italian, but not Spanish.

(9) a. **Et** Jean **et** Marie sont venus à la fête. (French)

b. **Sia** Gianni **sia** Maria sono venuti alla festa. (Italian)

c. Şi Ion, şi Maria au venit la petrecere. (Romanian)

d. *Y Juan y Maria han venido a la fiesta. (Spanish)

'Both John and Mary came to the party.'

Nevertheless, the structure *şi...şi* significantly differs from its counterparts, as shown by the empirical arguments mentioned in the section 3.

2.2 Properties of the coordinators⁴

If we look at the distribution of correlative items in these four languages, we observe at least three common properties. First of all, correlative items join phrasal categories such as NP (10-11-12-13a), PP (10-11-12-13b) or AP (10-11-12-13c) in all these languages.

³Its equivalent would be tanto...como, rarely used (in political discourse), or the adverbial *a la vez*, corresponding to the French à *la fois...et* (which follows the structure A, given in (6)):

⁽i) a. Voy (*y) a Corea y a Japón.

b. Voy a la vez a Corea y a Japón.

go.1sg.IND both to Korea and to Japan

⁴For Spanish examples, we retain only the pair o...o (see the footnote number 3).

- (10) F a. J'ai vu {soit / et} Jean {soit / et} Marie.
 I saw {either / both} John {or / and} Mary
 b. Je vais {soit / et} en Corée {soit / et} au Japon.
 I go {either / both} to Korea {or / and} to Japan
 c. Il est {soit / et} beau {soit / et} intelligent.
 he is {either / both} beautiful {or / and} smart
- (11) I a. Ho visto {o/sia} Gianni {o/che} Maria. see.1sg.IND {either/both} John {or/and} Mary b. Vado {o/sia} in Corea {o/sia} in Giappone. go.1sg.IND {either/both} to Korea {or/and} to Japan c. E {o/sia} bello {o/che} intelligente. be.3sg.IND {either/both} beautiful {or/and} smart
- (12) S a. He visto o a Juan o a Maria. see.1sg.IND {either / both} John {or / and} Mary b. Voy o a Corea o a Japón. go.1sg.IND {either / both} to Korea {or / and} to Japan c. Es o guapo o inteligente. be.3sg.IND {either / both} beautiful {or / and} smart
- (13) R a. Maria adoră {fie / și} proza, {fie / și} poezia.

 Maria adores {either / both} prose.DEF {or / and} poetry.DEF
 b. Merg {fie / și} în Coreea, {fie / și} în Japonia.
 go.1sg.IND {either / both} to Korea {or / and} to Japan
 c. Este {fie / și} frumos, {fie / și} inteligent.
 be.3sg.IND {either / both} beautiful {or / and} smart

As an additional remark, one may say that, inside the VP, the correlative coordination is more complicated, since the distribution of correlative items and speakers' acceptability vary cross-linguistically.⁵

Secondly, examples (14-15-16-17) show that such correlative items can also join embedded clauses:

⁵A priori, one can obtain a similarity between French and Italian on the one side, and Spanish and Romanian on the other side, according to at least two facts: first, the coordinator can freely combine with non-finite verbal categories in French or Italian, but this possibility is limited in Spanish and unavailable in Romanian; secondly, disjunctive coordinators combine with finite verbal categories (even if our data study shows some speakers' variation), while conjunctive ones are more constrained in French and Italian. We need further work in order to check these hypotheses.

(14) F a. Paul s'imagine soit que Jean n'est pas là soit que Marie le cache.
Paul thinks either that John is not here or that Mary hides him
b. Raconte-moi soit ce que tu as lu à la maison, soit ce que tu as appris à l'école.

Tell-me either what you read at home or what you learnt at school c. Je propose **et** que Jean vienne **et** que Marie le cache. I propose both that John come and that Mary hide him

(15) I a. Paolo pensa o che Gianni non c'è o che Maria lo nasconde.

Paul thinks either that John is not here or that Mary hides him

b. Raccontami o quello che hai letto a casa o quello che hai imparato
a scuola.

Tell-me either what read.2sg.PAST at home or what learnt.2sg.PAST at school

- c. Propongo **sia** che Gianni venga **sia** che Maria lo nasconda. suggest.1sg.IND both that John come and that Mary hide him
- (16) S a. Pablo se imaginaba **o** [que Juan no estaba allì] **o** [que Marìa lo escondìa].

Pablo thought either that John was not there or that Mary hid him b. Cuéntame \mathbf{o} lo que has leido en casa \mathbf{o} lo que has aprendido en el colegio.

Tell-me either what read.2sg.PAST at home or what learnt.2sg.PAST at school

(17) R a. Paula își imaginează **fie** [că Ion nu e aici], **fie** [că Maria îl ascunde].

Paul thinks either that John is not here or that Mary hides him b. Povesteşte-mi **fie** ce ai citit acasă, **fie** ce ai învățat la școală. Tell-me either what read.2sg.PAST at-home, or what learnt.2sg.PAST at school

c. Propun **și** [ca Ion să vină] **și** [ca Maria să-l ascundă]. suggest.1sg.IND both that John come and that Mary hide him

However, these coordinators are more constrained with root clauses. On the one hand, the disjunction type seems less constrained than the conjunctive one (in French or Italian), as examples in (18^6-19) show; on the other hand, declarative sentences are less constrained than imperative or interrogative clauses, as we observe in (22-23-24-25).

(18) F a. **Soit** il fera beau **soit** il fera mauvais. Either it be.FUT fine or it be.FUT bad

⁶ % notes speakers' variation.

'Either the weather will be fine or the weather will be bad.'

b. %En ce moment, et ses élèves le fatiguent et ses collègues l'agacent.

At the moment, both his students are-wearing him out, and his colleagues are-annoying him

'At the moment, it is both the case that his students are-wearing him out, and that his colleagues are annoying him.'

(19) I a. **O** il presidente guarisce entro domani, **o** la riunione verrà annullata.

Either the president gets better until tomorrow, or the meeting will-be cancelled

b. *In questo momento, **sia** i suoi studenti lo stancano **sia\che** i suoi colleghi lo innervosiscono.

At the moment, both his students are-wearing him out, and his colleagues are-annoying him

(20) S **O** el presidente se pone bueno antes de mañana, **o** la reunión tendrá que ser suspendida.

Either the president gets better until tomorrow, or the meeting will-be cancelled

(21) R a. Fie președintele se va însănătoși până mâine, fie reuniunea va fi anulată.

Either the president will get better until tomorrow, or the meeting will be cancelled

b. Şi gazul se scumpeşte, şi vremea se răcește.

Both the gas is-getting-expensive, and the weather is-getting-bad 'It is both the case that the gas is getting expensive, and that the

'It is both the case that the gas is getting expensive, and that the weather is getting bad.'

(22) F a. **Soit** tu manges, **soit** tu prépares tes devoirs.

Either you eat.IND, or you do.IND your homework.pl

b. *Soit mange, soit prépare tes devoirs!

Either eat.2sg.IMPERAT, or do.2sg.IMPERAT your homework.pl

c. *Soit qui viendra soit où on ira?

Either who come.3sg.FUT or where we go.1pl.FUT

(23) I a. O mangi, o fai i compiti.

Either eat.2sg.IND, or do.2sg.IND the homework.pl

b. *O mangia, o fa i compiti!

Either eat.2sg.IMPERAT, or do.2sg.IMPERAT the homework.pl

c. *O chi verrà o dove andremo?

Either who come.3sg.FUT or where go.1pl.FUT

(24) S a. O comes, o haces los deberes.

Either eat.2sg.IND, or do.2sg.IND the homework.pl

b. *O come, o haz los deberes, ¡decídete!

Either eat.2sg.IMPERAT, or do.2sg.IMPERAT the homework.pl

c. *O quien vendrá o dónde iremos?

Either who come.3sg.FUT or where go.1pl.FUT

(25) R a. Fie mănânci, fie citești.

Either eat.2sg.IND, or read.2sg.IND

b. *Fie mănâncă, fie citește, decide-te!

Either eat.2sg.IMPERAT, or read.2sg.IMPERAT, decide yourself

c. *Fie cine a venit fie unde mergem?

Either who come.3sg.FUT or where go.1pl.FUT

This restriction on main (declarative) clauses can be explained by the Boolean interpretation of omnisyndetic coordination (interpreted as conjoining propositions), assuming Ginzburg and Sag 2000's hypothesis that only declarative clauses have a propositional content. If interrogatives and imperatives do not have a propositional content, when embedded clauses are coordinated, one can interpret the coordination as scoping over the matrix clauses as well.

3 More on Romanian data

We give arguments for assigning structure B (given in (6b)) to Romanian disjunctive *sau / ori / fie...sau / ori / fie* ('either...or') and for assigning structures C (given in (8a-b)) to Romanian *şi...şi* ('both...and').

3.1 Correlative disjunction

Unlike English focus particles (e.g. *either*, cf. (26a)), 'initial' elements such as *sau / ori / fie* cannot float outside the cordination (26b-c).

(26) a. John **either** ate [rice **or** beans].

b. Ion a mâncat [**fie**⁷ orez **fie** fasole].

'John ate [either rice or beans].'

c. *Ion fie a mâncat [orez fie fasole].

'John either ate [rice or beans].'

⁷ For the sake of simplicity, we give examples only with *fie...fie* (only correlative use in coordination).

Unlike English *either* or *both* occurring only before the first term, Romanian correlative items can be iterated:

(27) a. Maria ar vrea să învețe **fie** engleza, **fie** franceza, **fie** german, **fie** japoneza.

Mary would wish to learn either English, or French, or German, or Japanese

b. Ion vrea **şi** o casă mare, **şi** o nevastă bună, **şi** copii deştepţi. John wants both a big house, and a good wife, and smart kids

Therefore, we consider that the symmetric structure B (proposed for French doubled conjunctions, cf. Mouret 2005 and 2007) is appropriate for Romanian disjunctive structure sau/ori/fie...sau/ori/fie ('either...or').

3.2 Arguments against the conjunctional status of $\sin \sin^8 3$

Romanian grammars (e.g. GALR 2005) distinguish between the conjunction ξi ('and') and the homonymous form behaving like an adverb:

a. Ion şi₁ Maria vorbesc franceza.
'John and Mary speak French.'
b. Şi₂ Ion vorbeşte franceza.
also John speaks French
c. Ion vorbeşte şi₂ franceza.
John speaks also French
'John speaks French, too.'

As for the correlative occurrences of the element si (e.g. si...si 'both...and'), the widespread view is that this distribution is restricted to adverbial items, which by 'repetition' lose their meaning, inheriting conjunctional properties (GALR I: 644). Furthermore, the si occurrences in correlative pairs (si...si) are analysed as conjunctions, without any empirical evidence.

In this sub-section, we give some arguments against the conjunctional status of si...si, arguing for an adverbial interpretation of si in correlative environments.

First, $\hat{s}i$ can be preceded by a coordinating conjunction which exclusively realizes the coordination relation: it can combine with conjunctions like $\hat{s}i$ 'and' or dar 'but' (29a). Even if the first correlative item is absent⁹, a conjunction can occur before the second conjunct (29b).

 $^{^{8}}$ The same observations hold for the pair nici...nici 'neither...nor' (cf. Bîlbîie 2006).

⁹In these cases, we interpret the 'end-attachment' coordination as a 'split' conjunct (cf. Abeillé 2005), functioning as an adjunct.

a. Manolescu scrie şi poezie {şi / dar} şi proză. Manolescu writes şi poetry {and / but} şi prose 'Manolescu writes both poetry and prose.'
b. La petrecere va veni Paul, {şi / dar} şi Mircea. to the party will come Paul, {and / but} also Mircea 'Paul will come to the party, and Mircea too'.

As we have already mentioned, this item can occur outside coordinated phrases, in independent sentences, having a commonly accepted adverbial status: *şi* ('too' / 'also') (see table 5):

a. La petrecere, vor veni şi prietenii, şi colegii lui Ion. to the party, will come şi friends, şi colleagues of John 'Both John's friends and his colleagues will come to the party.'
b. La petrecere, vor veni şi {prietenii / colegii} lui Ion. to the party, will come also {friends / colleagues} of Ion 'Ion's friends / colleagues will come to the party, too.'

Generally, the phrase composed by modifiers like cam 'rather', chiar 'even', doar, numai 'only', si 'also', nici 'neither', etc. (called semiadverbs on traditional grammars) and their host always bears 'emphatic' or contrastive stress, and that is exactly what we observe with the modifier si: prosodically, the constituent modified by si becomes stressed (receiving a special intonation).

An additional argument concerns the fact that the correlative conjunction (fie...fie 'either...or') always precedes each conjunct, whereas the adverbial si can occur inside the conjunct, following the subjunctive marker $s\ddot{a}$ 'that' (32a) or modifying a NP inside a coordinated VP (33a).

¹⁰Semiadverbs (cf. Ciompec 1985) behave differently from circumstantial adverbs, since they have modal or aspectual meaning (=intensifiers, so that they always need a head to modify), they can modify almost everything, they have relatively rigid order, in the immediate neighbourhood of the selected element. Barbu 2004 makes a distinction inside this class between lexical adverbs and affixal adverbs (the latter mentioned only occurring inside the verbal complex, next to the lexical verb).

- a. Paul adoră [să și cânte la pian], [să și danseze].
 Paul adores [Subj și play piano], [Subj și dance]
 'Paul adores both playing piano and dancing.'
 b. *Paul adoră [să fie cânte la pian], [să fie danseze].
 Paul adores [Subj fie play piano], [Subj fie dance]
 'Paul adores either playing piano, or dancing.'
- a. Maria [şi-a făcut şi patul], [a scris şi tema la matematică].
 Maria [made şi her bed], [wrote şi the-homework for maths]
 'Maria both made her bed, and wrote the homework for the maths class.'
 b. *Maria [şi-a făcut fie patul], [a scris fie tema la matematică].
 Maria [made fie her bed], [wrote fie the-homework for maths]
 'Maria either made her bed, or wrote the homework for the maths class.'

Another piece of evidence distinguishing between correlative conjunctions and the correlative ςi is related to the insertion of an incidental phrase. A significant difference between correlative conjunctions and adverbs is that one can insert an incidental element (like *poate* 'perhaps', *pare-se* 'it seems') after the conjunction fie, but not after the correlative ςi :

a. Ion vine fie azi fie {poate / pare-se}mâine.
'John comes either today or {perhaps / it-seems} tomorrow.'
b. *Ion vine şi azi, şi poate mâine.
John comes şi today, şi perhaps tomorrow
'John comes both today and perhaps tomorrow.'
b'. Ion vine şi azi, (dar) {poate / pare-se} şi mâine.
John comes şi today, (but) {perhaps / it-seems} şi tomorrow
'John comes both today and perhaps tomorrow.'

Additionally, there are some adverbs (like *chiar* 'even') that can modify the adverbial si:

a. La petrecere, va veni (chiar)¹¹ şi primarul satului. to party, will come even şi the-major of-the-village 'Even the major of the village will come to the party.'
b. La petrecere, va veni Băsescu şi chiar şi fostul preşedinte. to party, will-come John and even şi the ex-president 'Băsescu and even the ex-president will come to the party.'

¹¹This element marks the idea of surprise, an unexpected event ("Ioana was the one least likely or least expected to resign").

The distributional behaviour of the adverbial *şi* is not singular in Romanian. There is a class of adverbs (the so-called 'intensifiers') that has the same distribution as *şi* (and *nici*, cf. Ciompec 1985). Inside this special adverbial class, Barbu 1999 and 2004 distinguishes between lexical intensifiers (= adverbs₁) and affixes (= adverbs₂). Elements of the first sub-set (adverbs₁) would be items like: *nici* ('neither', 'nor'), *abia* ('hardly'), *aproape* ('almost'), *chiar* ('even'), *doar*, *măcar*, *numai* ('only'), *încă* ('still'), *şi* ('also', 'already'), while the second sub-class (adverbs₂) contain: *şi* ('also', 'already'), *cam* ('rather'), *mai* ('nearly', 'still', 'again'), *prea* ('too'), *tot* ('still', 'repeatedly'). In table 2, one may see the general precedence order rule for both adverbial classes.

Table 2. General precedence order rule

```
(PO) adv_1 s \bar{a} nu pron aux adv_2 vb
s \bar{a} = \text{subjunctive marker (see } que \text{ in French)}
nu = \text{negation}
pron = \text{weak pronouns}
aux = \text{auxiliaries}
adv = \text{monosyllabic adverbs } (cam, prea, mai, şi, tot)
vb = \text{lexical verb}
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Table 3. Precedence order rule for the adverbial si

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(PO) (\mathbf{s}\mathbf{i}) să nu pron aux (\mathbf{s}\mathbf{i}) vb
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As the table 3 shows, the adverbial gi can have both distributions¹², either at the edge of the verb cluster (= adverb₁), or inside, between the auxiliary and the lexical verb (= adverb₂). We observe some variations related to the verbal mood or tense: with the subjunctive, both distributions are available (36); with the past tense, for example, it can occur only between the auxiliary and the past participle (37).

(36) a. Maria vrea [şi să citească], [şi să deseneze]. Maria wants [şi Subj read], [şi Subj draw] b. Maria vrea [să și citească], [să și deseneze]. Maria wants [Subj și read], [Subj și draw] 'Maria wants both to read and to draw.'

 $^{^{12}}$ The different distributions of the element $\mathfrak{s}i$ correspond to a different syntactic (and semantic) status, i.e. the occurrence of $\mathfrak{s}i$ as adverb₂ could be interpreted as an affix.

(37) a. Astăzi, [am şi băut], [am şi mîncat]. today [Aux şi Vb] [Aux şi Vb] b. *Astăzi, [şi am băut], [şi am mîncat]. today [şi Aux Vb] [şi Aux Vb] 'Today I have both drunk and eaten.'

To sum up this section, we can say that the Conj...Conj... structure is available only for the disjunction type in Romanian (like in Spanish). With correlative adverbs (si...si), what we have is in fact simple coordination, or asyndetic coordination¹³: $Adv...\{Conj/\emptyset\}Adv$.

As for the Romance perspective, the four Romance languages have one common correlative structure, i.e. the Conj...Conj... structure, as the new analysis of Romance shows in table 4.

Table 4. Analysis of Correlative coordination of 4 Romance languages

	French	Italian	Spanish	Romanian
Disjunction Type	ConjConj	ConjConj	ConjConj	ConjConj
Conjunctive Type	ConjConj AdvConj	ConjConj	AdvConj	AdvAdv).

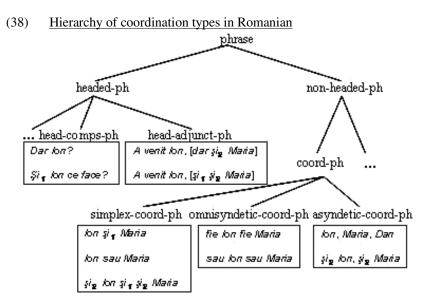
Table 5. Categorial status of the different correlative items

Tuble 2. Cutegorius status of the unferent correlative tems						
		French	Italian	Spanish	Romanian	
	simple conjunction	et	e	у	si_1	
Conj /	correlative conjunction	etet	siasia _c		1	
Adv	simple adverb	'aussi'	'anche'	'tambien'	si_2	
	correlative	à la fois		a la vez	$ \bar{s}i_2\bar{s}i_2 $	
	adverb					

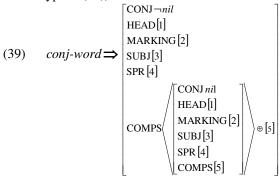
4 An HPSG analysis

Let us first sketch the hierarchy of coordination types in Romanian:

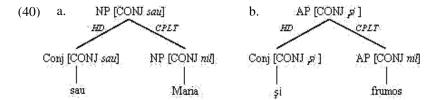
¹³Represented here by the empty set symbol.



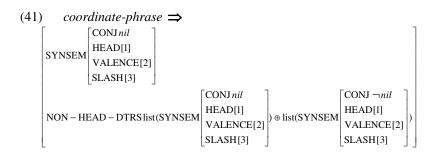
Turning to the syntax of coordination, we follow Abeillé 2003 and 2005 by treating them as 'weak' syntactic heads (rather than markers) making a subconstituent with the following phrase and inheriting from it most of their syntactic features, except the CONJ feature they introduce; consequently, they inherit the variable [1] and valence requirements (SUBJ, MARKING, SPR and COMPS features), represented by the sharing of variables like [2], [3], [4] and [5] respectively, which can correspond to empty lists (cf. the lexical type in (39)).



Assuming a lexical type such as (39), one can allow head-complements structures, such as a NP structure (*sau Maria* 'or Maria') in (40a), or an AP structure (*şi frumos* 'and beautiful') in (40b):



As for the analysis of coordinate structures as a whole, we follow Pollard and Sag 1994, Abeillé 2005 and 2006, by treating coordination as a subtype of non-headed phrase, rather than a binary conjunction phrase or some multiheaded construction.



In order to give an unitary account for the Romance data, we further posit three subtypes of coordinated phrases (see Mouret 2005 and 2007), differing on whether all the conjuncts (42), some conjuncts (43) or none of them (44) is headed by a conjunction. The first subtype is the omnisyndetic-coordinated-phrase, accounting for symmetric structures in Romance and, particularly, for the disjunction type in Romanian. Furthermore, the simplex-coordinated-phrase accounts for the simple coordination in general (mono- or polysyndetic), including also Romanian structures with correlative adverbs. And, finally, the asyndetic-coordinated phrase allows us to have Romanian coordinations with correlative adverbs (e.g. $\varsigma i_2...\varsigma i_2$), where there is no conjunction as coordinator at all.

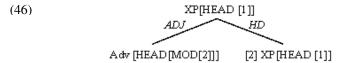
(43)
$$simplex-coordinated-phrase \Rightarrow [NON-HEAD-DTRS ne-list([CONJ nil]) \oplus ne-list([CONJ[1] ori \lor sau \lor dar \lor şi_I)]]$$

(44) asyndetic-coordinated-phrase ⇒

$$\begin{bmatrix}
\text{NON} - \text{HEAD} - \text{DTRS ne} - \text{list}(\begin{bmatrix} \text{CONJ } nil \\ \text{LEFT CORREL} [1] \end{bmatrix})
\end{bmatrix}$$

(45) **şi**₂ Ion **şi**₁ **şi**₂ Maria ADV Ion CONJ ADV Maria 'both Ion and Maria'

The adverbial ξi_2 (as in (45)) selects the expression it modifies on a purely semantic basis; like other adverbs of the same type (see the two adverbial classes mentioned in Barbu 1999, 2004), it occurs to the left of the head it modifies. Following previous work (Noord and Bouma 1994, Abeillé and Godard 2003), we interpret it as an adjunct.



As for the representation of correlative adverbs, we follow Miller 1992 and Tseng 2003 in assuming an EDGE Feature Principle which allows feature propagation along the right and left edges of phrases. We then build from Abeillé and Borsley 2006, using a LEFT feature [CORREL] to identify the adverbial correlative forms in the lexicon and to percolate the information on the left edge of the phrase.

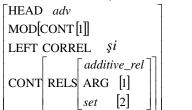
(47) EDGE feature Principle

phrase ⇒

A linear precedence rule requires that there be no intervening material between the adverb and the modified constituent (*immediate precedence*):

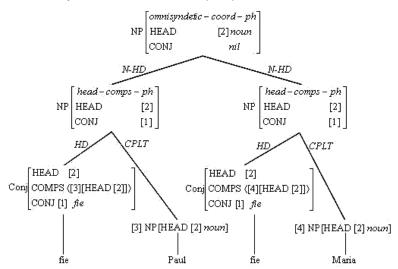
- (48) head-adjunct-phrase ⇒
 ADJ DTR [adv] << HEAD DTR
- (49) Lexical entry for the conjunction si_1

(50) Lexical entry for the adverb si_2

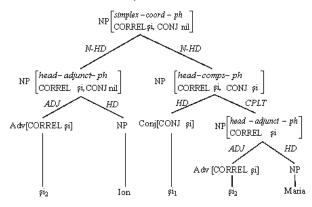


Some simplified licensed structures:

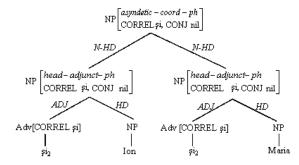
(51) Omnisyndetic coordination with fie...fie ('either...or')



(52) Correlative adverbs in simplex coordination



(53) Correlative adverbs in asyndetic coordination



5 Conclusion

Assuming three main types of coordinate structures (simplex, omnisyndetic and asyndetic), in this paper we have focussed on omnisyndetic constructions, the disjunctive either...or and the conjunctive both...and in four Romance languages (French, Italian, Spanish and Romanian). First, we have mentioned some of their common distributional properties in Romance and, then, we showed the hybrid case of Romanian, by a detailed analysis of the correlative şi...şi. We have provided some empirical evidence for analysing the $\xi i...\xi i$ ('both...and') structure as asyndetic with the element ξi as an adverbial, by showing the double status of the element si (conjunction or adverbial). A more precise analysis of the distribution of correlative coordinations (e.g. Why is the omnisyndetic structure allowed for disjunction and not for conjunction in French and Italian? Why are declarative sentences less constrained than imperative or interrogative clauses), as well as an extension to other omnisyndetic coordinations (e.g. the negative type nici...nici 'neither...nor', which a priori has the same syntactic analysis as si...si 'both...and') still need to be provided.

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