## The syntax of French conjunction doubling<sup>\*</sup>

## François Mouret Université Paris 7 & CNRS

### Introduction

(1)

In many languages such as French, Italian or Japanese, there are structures beside simplex coordinations (1a) in which the coordinating conjunction seems to be repeated in front of each conjunct, including the first one (1b). I refer to such structures as 'conjunction doubling coordinations' (CDCs) (Gross 1973).

(1)	)					
a.	Luc	connaît	Max	et	$L\acute{e}a.^1$	
	Luc	knows	Max	and	Léa.	
b.	Luc	connaît	et	Max	et	Léa.
	Luc	knows	and	Max	and	Léa.
	'Luc knows not only	y Max but al	so Léa.'			

While most current approaches to coordination try to accommodate data such as (1b), it is striking that no precise description of CDC has ever been provided.<sup>2</sup> To account for the occurrence of (what looks like) a coordinating conjunction on the left of the first conjunct, two main analyses are conceivable: the initial term can be treated as an homonymous functor (an adjunct adverb or a functional head) taking the simplex coordinate phrase as an argument or it can be considered as a true conjunction, assuming each string [*conj XP*], including the first one, forms a constituent.

In this paper, I present a broad description of French CDCs that undermines the functor-argument analysis and calls for a revision of the second approach in which one and the same conjunction is repeated in front of each conjunct. Given the distributional properties that CDCs exhibit, I propose to analyse them as instances of a specific Construction, making crucial use of inheritance in a partial hierarchy of coordinate constructions. I couch my analysis in a Head-driven Phrase Structure Grammar (Pollard, Sag 1994, Ginzburg, Sag 2001).

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<sup>&</sup>lt;sup>1</sup> For most examples, I provide glosses without translations, relying on the closeness of English and French.

<sup>&</sup>lt;sup>2</sup> A first classification of those structures in French can be found in Piot 2000. I leave aside doubled adverbs and subordinators in this study.

The paper is organized as follows: in the first section, I present some basic distributional properties of French CDCs; in the second section, I discuss two main analyses that have been proposed in the literature, relying respectively on a functor-argument structure and a multi-marked-conjunct structure; and in the third section, I sketch a construction-based analysis within HPSG.

## 1. Basic properties

Doubling concerns four coordinating conjunctions in French: it is optional with et (and) and ou (or) while obligatory with ni (nor) and soit (or): <sup>3 4</sup>

(2)	
(4)	

Luc	commaît	( 1 )	17	,	
200	connaii	(ou / et)	Max	ou / et	Léa.
Luc	knows	or / and	Max	or / and	Léa.
Luc	ne connaît	*(ni)	Max	ni	Léa.
Luc	NE-knows	nor	Max	nor	Léa.
'Luc knows neither l	Max nor Léa	ı.'			
Luc	connaît	*(soit)	Max	soit	Léa.
Luc	knows	soit	Max	soit	Léa.
'Luc knows either M	lax or Léa.'				
	Luc Luc Luc 'Luc knows neither I Luc Luc 'Luc knows either M	Luc knows Luc ne connaît Luc NE-knows 'Luc knows neither Max nor Léa Luc connaît Luc knows 'Luc knows	Lucknowsor / andLucne connaît*(ni)LucNE-knowsnor'Luc knows neither Max nor Léa.'LucconnaîtLucknowssoit'Luc knows either Max or Léa.'	Lucknowsor / andMaxLucne connaît*(ni)MaxLucNE-knowsnorMax'Luc knows neither Max nor Léa.'Lucconnaît*(soit)LucknowssoitMaxLucknowssoitMax	Lucknowsor / andMaxor / andLucne connaît*(ni)MaxniLucNE-knowsnorMaxnor'Luc knows neither Max nor Léa.'Lucconnaît*(soit)MaxsoitLucknowssoitMaxsoitLucknowssoitMaxsoit

As noted by Progovac 1998, CDCs require a specific prosodic pattern. In French, each conjunction must receive a secondary accent and each string [*conj XP*] must form a prosodic group.

Beside those specific properties, CDCs seem to behave exactly as expected of simplex symmetric coordinate constructions:

(i) The number of constituents that can be conjoined is unbounded (contrary to English binary constructions [*Both XP and XP*] and, for some speakers at least, [*(n)either XP (n)or XP*]):

<sup>3</sup> *Ni* raises specific problems related to negative polarity that, due to space limitation, I cannot discuss in this paper (see de Swart 2001). I assume that there are two distinct lexical entries: *ni1* is a strong negative polarity disjunction that must be licensed by a negative expression and that is never doubled, while *ni2* is a negative conjunction that must be doubled giving rise to double negation or negative concord under the scope of a negative expression.

<sup>4</sup> Soit is historically the subjunctive form of the verb *être* (be). In modern French, it clearly behaves as an homonymous coordinating conjunction (see Grévisse, Goosse 1993 §1041). I leave aside [*soit XP ou XP*] structures, which are acceptable for a large number of speakers. To accommodate those data, one could posit a specific lexical entry *soit2*, syntactically an adverb, that adjoins to a disjunctive phrase. Such an analysis would explain why intermediate conjunctions *ou* can be deleted in those structures while intermediate *soit* cannot in CDCs (see section 2).

(3)										
a.	Luc	connaît	ou/et	Max	ou/et	Léa	(ou/et	Paul	ou/et	Jean)
b.	Luc	ne connaît	ni	Max	ni	Léa	(ni	Paul	ni	Jean)
c.	Luc	connaît	soit	Max	soit	Léa	(soit	Paul	soit	Jean)

(ii) Beside NPs, all the major phrasal categories can be conjoined. I only provide examples with the doubled conjunction et since it has received very little attention but the general distributional pattern can be reproduced with ou, ni and *soit* for the categories examplified below.<sup>5</sup>

(4)									
a.	Ι	1	veut	[et d	chanter	et	danser	·].	
VPin	f F	Ie	wants	and t	o-sing	and	to-dan	ce.	
b.	L	e	suspe	ct ser	a [et	in	iterrogé	et	fouillé].
VPpa	<i>irt</i> T	`he	suspe	ct wil	l-be and	l qu	uestioned	and	searched.
c.	?	Ce	prod	luit	[et	protège	les	gencives	
VP <i>fir</i>	n J	This	prod	luct	and	protects	the	gums	
et	r	enforce	e l'	,	émail	].			
and	r	einforc	es tl	ne	enam	el.			
d.	$I_{i}$	l com	ipte [et	sur	Max e	t sur	Léa]		
PP	H	Ie relie	es and	d on	Max a	nd on	Léa.		
e.	C'	est	un voyaş	ge [et	long e	t péni	ble].		
AP	This	s is a	a trip	and	long a	nd tires	ome.		
f.	C	Cela se	mble [et	synta	axiqueme	nt et	sémantiq	uement] n	1alformée.
AdvP	, Т	'his se	ems an	d synta	actically	and	semantic	ally il	llformed.
g.	?De	main,	[et il	fera	beau	et il	fera c.	haud] <sup>6</sup> .	
S	Tom	norrow	and it	will-be	e shiny	and it	will-be w	varm.	
h.	Il	veut	[et d	qu' il	fasse	beau	et qu'	il fasse	chaud].
S'	He	wants	and t	that it	be	shiny	and that	t it be	warm.

While much more restricted, word-level coordinations are not exluded either, as the following data suggest: <sup>7</sup>

He talks and about linguistics to Léa and about philosophy to Jean.

<sup>6</sup> Data with doubled *et* are difficult to judge. Finite verbal conjuncts (V°/VP/S) structures are not accepted by all French speakers (while given grammatical by Gross 1973, Salkoff 1979 and Piot 2000). The same problem arises with doubled *ni* (*ni2*) but speakers who do not accept finite V°/VP/S coordinations in this case are not necessarily those who do not accept V/VP/S coordinations with doubled *et*.

<sup>&</sup>lt;sup>5</sup> Non-constituent strings, not discussed in this paper, are also conjoinable with doubled conjunctions:

<sup>(</sup>i) Il parle et de linguistique à Léa et de philosophie à Jean.

(5)											
a. 1	ll ve	ut [et	noter e	t er	nregisti	rer] c	e d	iscour	S.		
<b>V</b> ]	He wa	ants and	d note a	nd re	ecord	tł	nis ta	alk.			
b.	Ils	d	iscutent	[et	avant	t et	арі	rès]	la c	confér	ence.
Prej	p The	ey ta	alk	and	befor	e and	afte	er	the c	confer	ence
c.	Il	а	des	dos	siers	[et	antéi	rieurs	et	po	stérieurs]
Adj	He	has	som	e file	S	and	prior	•	an	d lat	er
à	cette		date.								
to	that		date.								
d.	Le	match	doi	nne	[et	fair	т	et	soif	] à	Luc.
Ν	The	match	giv	<i>v</i> es	and	huı	nger	and	l thirs	st to	Luc.
e.		? <i>Il</i>	fait		toı	ijours		[et p	olus	et	mieux]
Adv	<i>r</i> ]	He	does		alv	vays		and r	nore	and	better
que	Ì	les	autres	•							
than	ı <b>1</b>	the	others	•							

(iii) CDCs obey the Coordination of Likes and Unlikes Constraint, as formulated by Sag et al. 1985: conjunct properties are intersected and the coordinate phrase, underspecified for the conflicting features (if there are some), is ruled-out if it contradicts some predicate requirements ((6c) vs (6d)). As expected, extraction only applies 'across-the-board' on a subconstituent inside each conjunct (7) (cf. Ross 1967):

(6)

a.	Luc	redoute	(la	hausse	des	prix /	que	les	impôts	augmentent).
	Luc	fears	(the	rising	of-the	prices /	that	the	taxes	rise)
b.	Luc	critique	(la	hausse	des	prix /	*que	les	impôts	augmentent).
	Luc	criticizes	(the	rising	of-the	prices /	that	the	taxes	rise)

c. Luc redoute (et) la hausse des prix et que les impôts augmentent.

d. \*Luc critique (et) la hausse des prix et que les impôts augmentent.

(7)

a. Voici la femme avec qui soit il dîne soit il déjeune\_. Here-is the woman with whom soit he has-dinner soit he has lunch. b. \*Voici la femme avec qui soit il dîne avec Marie soit il déjeune \_.

- c. \*Voici la femme avec qui soit il dîne \_ soit il déjeune avec Marie.

<sup>&</sup>lt;sup>7</sup> Some of those structures can alternatively be analyzed as some instances of Right-Node-Raising

<sup>(</sup>cf. Kayne 1994). See Borsley (Forthcoming) for a general discussion.

## 2. Current syntactic analyses

I distinguish two families of analyses according to whether or not the initial term on the left bracket of the coordinate structure is singled-out. The first family adopts a functor-argument structure for CDCs while the second assumes a multimarked-conjunct structure.

## **Functor-argument structure**

Two main substructures are possible: a head-adjunct structure in which the initial term is an adverb adjoined to the coordinate phrase (8a) or a head-complements structure in which the initial term is a functional head taking the coordinate phrase as a complement (8b):



The first structure has been proposed by Johannessen 1998 for all the initial terms that call for a conjunction in various languages (including English *both*, *(n)either* and French *et*, *ou*, *ni*, *soit*) while the second has been proposed by Kayne 1994 for (French and Japanese) initial coordinating conjunctions and by Skrabalova 2003 for all the initial terms in French, English and Czech NPs conjunctions. I show that both structures, while maybe appropriate for some initial terms in coordinate constructions, are inadequate for French CDCs.

The main motivation for distinguishing the initial term from the subsequent conjunctions is semantic in nature. As noted among others by Kayne 1994, Skrabalova 2003, Zamparelli 1999 and Zoerner 1999, doubling the conjunction *et* with NPs triggers a distributive reading (compare (9a) and (9b)) that is obligatory (9c). It is argued this can be captured by a functor analysis, assuming initial *et* is a distributive operator taking the semantics of the (plural) coordinate NP as an argument.

(9)	)							
a.	Max Max	et and	Léa Láo	font	<i>leurs</i>	devoirs.	-	=ambiguous
	Max	and	Lea	are-doing	uleir	nomework	ξ.	distributive reading)
b.	Et	Ma	x et	Léa f	font	leurs	devoirs.	=distributive

								reading
	And	Max	and	Léa	are-doing	their	homework.	
c.	*Et	Max	et	Léa	forment	un	couple	heureux.
	And	Max	and	Léa	make	а	happy	couple.

However, such an argument looses much of its weight when one takes into account the full range of XPs making up CDCs with *et* (cf. section 1): NPs but also various categories such as VPs, PPs, APs or Ss, for which the notion of distributive reading (Link 1983) has no clear content. Moreover, CDCs with *ou* and *soit* have a disjunctive meaning and once again, the link with distributivity needs clarification. Hence, for the time being, a functor analysis of initial terms does not constitute any simplification of the syntax-semantic interface.

Second, Johannessen 1998 and Skrabalova 2003 have noted distributional differences between initial terms such as English *both* (+plural, dual), *(n)either* (+or) and the subsequent conjunctions. The same distributional pattern can be observed with some French initial adverbials such as à *la fois*, *en même temps* (at the same time) or *respectivement* (respectively)<sup>8</sup> that bear on a plural entity, but crucially not with initial *et*, *ou*, *ni* and *soit* in CDCs. I contrast the properties of *both*, à *la fois* and *et* concerning the occurrence outside the coordinate phrase (10-11-12) and the occurrence between two conjuncts (13-14-15).

(10)

(11)

a. b.	Il He Il He	a has a has	<i>appris</i> learned <i>à la fois</i> at the sa	me time	<i>à</i> at <i>a</i> p le	<i>la fois</i> the same t <i>ppris</i> arned	time	l' l'	espagnol Spanish espagnol Spanish	<i>et</i> and <i>et</i> and	l' l'	<i>italien</i> . Italian. <i>italien</i> . Italian.
(12 a. b.	2) <i>Il</i> He * <i>Il</i> He	a has a has	<i>appris</i> learned <i>et</i> and	<i>et</i> and <i>appris</i> learned	l' l'	<i>espagnol</i> Spanish <i>espagnol</i> Spanish	<i>et</i> and <i>et</i> and	l' l'	<i>italien.</i> Italian. <i>italien.</i> Italian.			

(13)

a. He has learned both Spanish and Italian.

<sup>8</sup> Note that those adverbials are compatible with doubled conjunctions:

(i) Il a appris à la fois et l'espagnol et l'italien.

I leave open the analysis of 'non seulement ... mais' (not only ... but) structures.

a. *He has learned both Spanish and Italian*.b. *He has both learned Spanish and Italian*.

b. \*He has learned Spanish both Italian.

(14)
a. Il a appris à la fois l'espagnol et l'italien.
b. \*Il a appris l'espagnol à la fois l'italien.

(15)a. Il a appris et l'espagnol et l'italien.b. Il a appris l'espagnol et l'italien.

A third problem raised by a functor-argument structure for French CDCs concerns the distribution of intermediate conjunctions. When there are more than two conjuncts, intermediate conjunctions cannot be deleted in CDCs (16a) while this is possible in coordinate structures introduced by an adverbial (16b).

(16)

a. Il a appris et l'espagnol \*(et) l'italien et le grec.b. Il a appris à la fois l'espagnol (et) l'italien et le grec.

This contrast is unexpected given the unified functor analysis of initial terms. It requires the postulation of a specific feature [NULL±] on the coordinate phrase available for selection by initial adverbs / heads (Johannessen 1998). <sup>9</sup> Finally, no functor-argument analysis can account for CDCs with the conjunction *soit*, which has no simplex counterpart: <sup>10</sup>

(17) *Il discutera \*(soit) avec Luc soit avec Léa.*He will-talk either with Luc or with Léa.

Indeed, under the proposals (8a) or (8b), one has to make the distribution of [XP soit XP] dependent of the functor *soit* with which it combines, a stipulation that does not fit the orientation of the head-adjunct or head-complement relation. I conclude that a functor-argument structure is inappropriate for French CDCs and turn to approaches in which the initial term is treated as a coordinating conjunction.

<sup>&</sup>lt;sup>9</sup> A less stipulated solution is given below.

<sup>&</sup>lt;sup>10</sup> A non-doubled *soit* does exist in French but it is clearly an homonymous conjunction meaning *that is to say*. Moreover, the phrase [*soit XP*] is prosodically detached in this case, which makes it a good candidate for an incidental analysis.

### Multi-marked-conjunct structure

The idea that each conjunction projects its own phrase is compatible with different analyses of coordination. Indeed, it has been proposed both in a P&P perspective with a ConjP structure (Progovac 1998) in which the first constituent [*conj XP*] is the specifier of the head conjunction (18) and in a GPSG perspective with a multi-headed structure (Sag et *al.* 1985) (19).<sup>11</sup> I focus on the GPSG analysis.



Since one allows the first conjunct to be marked by a conjunction, one does not have to treat *soit* CDCs separately and all things being equal, a unified account of CDCs must be preferred.

Moreover, the ban on intermediate conjunctions deletion (repeated in (20b/c)) can be captured by a linear precedence constraint that linearizes unmarked conjuncts before marked ones in coordinate constructions (20a). Contrary to the *ad-hoc* feature [NULL±] proposed by Johannessen 1998, this constraint is independently needed to rule out (20e):

#### (20)

a. coord-ph => [CONJ null] < [CONJ ¬null]</li>
b. Et Luc et Max et Paul: [CONJ et] < [CONJ et] < [CONJ et]</li>
c. \*Et Luc Max et Paul: \*[CONJ et] < [CONJ null] < [CONJ et]</li>

<sup>&</sup>lt;sup>11</sup> Those structures are reminiscent of early work in transformational syntax relying on a spreading operation of the conjunction (by c-adjunction to each conjunct) applied on an output of the form [conj X (X)<sup>+</sup>] followed by some appropriate deletions (cf. Ross 1967).

d. Luc Max et Paul: [CONJ null] < [CONJ null] < [CONJ et] e. \*Et Luc Max Paul: \*[CONJ et] < [CONJ null] < [CONJ null]

This analysis however encounters a problem. Since CDC is just another variant of the same coordinate construction, we do not expect distributional differences between simplex coordinations and CDCs. Still, there are some distributional differences:

(i) CDCs have a restricted distribution with prepositions: some prepositions can take a CDC complement (21) (e.g. *avec* (with), *entre* (between), *envers* (towards), *vers* (to/around)) while others cannot (22) (e.g.  $\hat{a}$  (to/about), *de* (of), *en* (in), *sur* (on), *chez* (by), *contre* (against), *pour* (for)).<sup>12,13</sup>

(21)

a.	Il	cherche	ur ur	ne ch	ambre	avec	(ou)	un	lit sim	iple d	ou u	ın
	He	seeks	а	ro	om	with	or	a	single	e-bed o	or a	L
lit	doub	ole.										
do	uble-	bed.										
b.	Il	épro	uve de	ela ha	ine	enver	s (e	et) se	on	frère		
	He	has	so	me ha	te	towar	ds ai	nd h	is	brother		
et	sa	soeu	r.									
an	d hi	s siste	r.									
(22	2)											
à.	Les	livres	sont	posés	sur (	*ou)	le	buff	et	ои	la	table.
	The	books	are	left	on c	or	the	side	board	or	the	table.
b.	Il	pense	à	(*et)	son f	rère	et	sa		soeur.		
	He	thinks	about	and	his t	orother	and	his		sister.		

(ii) Unsaturated nouns (23) (Bègue 1977) as well as prenominal adjectives (but not postnominal ones) (24) (Abeillé, Godard 1999) cannot be conjoined:

(23)

a.	Mes	(*et)	collègues	et	amis	viendront.
	My	and	collegues	and	friends	will-come.
b.	Les	(*ou)	parents	ou	grands-parents	viendront.
	The	or	parents	or	grand-parents	will-come.

<sup>&</sup>lt;sup>12</sup> No preposition admits a CDC complement with *ni*.

<sup>&</sup>lt;sup>13</sup> There is no distinction between prepositions heading an adjunct PP and prepositions heading an argument PP in French, contrary to Zamparelli's 1999 observation concerning [*sia XP sia/che XP*] structures (=*Both ... and ...*) in Italian.

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(24)
a. Il a fait un (??et) long et pénible voyage.
He has done a and long and tiresome trip.
b. Il a fait un voyage (et) long et pénible.
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Those distributional restrictions can be captured by positing a specific Construction (in the theoretical sense of Fillmore, Kay 1999) for CDCs. <sup>14</sup> In the following section, I sketch a construction-based analysis within HPSG that enables one to express both the general and the specific properties of French CDC in a uniform constraint-based fashion.

# 3. A construction-based approach in HPSG

I first present some general assumptions on coordination within Head-driven Phrase Structure Grammar. Then, I provide a partial hierarchy of French coordinate constructions with some appropriate constraints on types and some examples of implicational constraints that can be used to account for the distributional restrictions mentioned above.

# **Coordination in HPSG**

The present treatment of CDC embodies two general assumptions on coordination:

(i) Following Abeillé 2003, I analyze coordinating conjunctions as weak heads that inherit most of their syntactic features from the subsequent sign with which they project a *head-complements-phrase*:

(25)



Note that a CONJ feature (declared appropriate for the type *category*) takes the form of the conjunction as its value. <sup>15</sup> Assuming headed phrases inherit the CONJ specification of their head-daughter, [*conj XP*] phrases can be prevented

<sup>&</sup>lt;sup>14</sup> Would those restrictions follow from some pragmatic or semantic properties of CDC, they

would still be properties of the Construction.

<sup>&</sup>lt;sup>15</sup> I assume that signs are specified [CONJ null] by default.

from occurring in argument positions (\**Peter loves and Mary*), given the additional constraint on the argument structure of words in (26).

(26) word => ARG-ST([CONJ null])

(ii) Symmetric coordinate structures are non-headed constructions (Pollard, Sag 1994) with a sharing constraint of (at least) the HEAD, VALENCE and SLASH features between conjuncts and between conjuncts and mother. <sup>16</sup> Moreover, the mother node is specified [CONJ *null*], so that the coordinate phrase can occur in argument positions (27).

(27)

$$coord-ph \Rightarrow \begin{vmatrix} CONJ & null \\ HEAD & [1] \\ VALENCE & [2] \\ SLASH & [3] \\ NON-HD-DTRS \left\langle \begin{vmatrix} HEAD & [1] \\ VALENCE & [2] \\ SLASH & [3] \end{vmatrix}, \dots, \begin{vmatrix} HEAD & [1] \\ VALENCE & [2] \\ SLASH & [3] \end{vmatrix} \right\rangle$$

An example of simplified coordinate structure is given in (28):



## **Constraining coordinate constructions**

Both derivational and non-derivational approaches of coordination have tried to reduce such constructions to a single dimension of constraints, be it the conjunction with ConjP analyses (cf. Johannessen 1998) or the properties of the conjuncts making up the structure (with various phrase structure rules, as in GPSG). Following Abeillé 2003, I take advantage of HPSG cross-classification work. I propose to cross-classify coordinations according to two different

<sup>&</sup>lt;sup>16</sup> Thus accounting for the coordination of likes Constraint. See Sag 2003 for a treatment of

coordination of unlikes consistent with (27).

dimensions: the distribution of conjunctions, with different subtypes (29) for which appropriate constraints are given in (30) and the properties of the conjuncts ( $X^{\circ} / XP / non-constituent$  coordinations), that I leave aside in this paper.



[Pierre Paul et Marie] [Pierre et Paul et Marie] [Pierre Paul Marie] [et Pierre et Paul et Marie]

(30)

a. basic-coord-ph => [NON-HD-DTRS nelist([CONJ [1]null]) ⊕ <[CONJ et v ou]>]
b. iterative-coord-ph => [NON-HD-DTRS <[CONJ null]> ⊕ nelist([CONJ [1]et v ou v nil])]

c. asyndetic-coord-ph =>  $\begin{vmatrix} \text{CONTENT} & \begin{bmatrix} \text{et-reln} \\ \text{ARGS} \{ i, ..., n \} \end{bmatrix} \\ \text{NON-HD-DTRS} \left\langle \begin{bmatrix} \text{CONJ} & [1]null \\ \text{INDEX} & i \end{bmatrix} , ..., \begin{bmatrix} \text{CONJ} & [1] \\ \text{INDEX} & n \end{bmatrix} \right\rangle$ 

The description of CDC can be stated as follows:

(31)

doubling-coord-ph=>  $\begin{bmatrix} DOUBLING & [1]etv ouv ni2v soit \\ NON-HD-DTRS \langle [CONJ [1]], ..., [CONJ [1]] \rangle \end{bmatrix}$ 

Each daughter's CONJ feature is specified for the same conjunction form, which is restricted to *et, ou, ni2* or *soit* in the construction description. The mother node contains a DOUBLING feature which takes the form of the conjunction as its value so that distributional constraints (such as the ban on conjoining prenominal adjectives (32a), or unsaturated nouns (32b) or the lexical restrictions with prepositions (32cd) can be expressed. <sup>17 18</sup>

<sup>&</sup>lt;sup>17</sup> This feature is declared appropriate for the type *category* and signs are specified [DOUBLING *null*] by default.

<sup>&</sup>lt;sup>18</sup> See Abeillé, Godard 1999 concerning the [WEIGHT *lite/non-lite*] specification. It is only indirectly linked to lexicality (X° vs XP) since some XPs can be lite (e.g. prenominal APs).



A simplified licensed structure is illustrated in (33):



## Conclusion

In this paper, I have shown that a comprehensive description of French CDCs undermines the functor-argument analysis that has been proposed in the recent literature. I have further argued that approaches that allow one and the same conjunction to be repeated in front of each conjunct need to be refined in order to account for the distributional properties of CDCs. I have sketched a constructionbased approach in HPSG that enables one to express both their general properties (inherited from more general coordinate constructions) and their specific properties (introduced by a special subtype) in a constraint-based fashion. Further research on the semantic and pragmatic properties of CDC should bring more support to those proposals.

#### References

Abeillé, A. 2003. A lexicon and construction-based approach to coordinations. in Müller, S. (ed). *HPSG'2003 conference proceedings*. East Lansing, Michigan.

Abeillé, A. Godard, D. 1999. La place de l'adjectif épithète en français: le poids des mots. *Recherches linguistiques de Vincennes*. 28. 9-31.

Bègue, D. 1977. Quelques aspects de la coordination en français. PhD thesis. Université Paris 7.

Borsley, R. D. Forthcoming. Against ConjP. To appear in Lingua.

Fillmore, C. Kay, P. 1999. Grammatical constructions and linguistic generalizations: the what's X doing Y? construction. *Language*. 75.

Ginzburg, J. Sag, I. 2001. *Interrogative investigations: the form, meaning and use of questions*. Stanford : CSLI Publications.

Grévisse, M. Goosse, A. 1993. Le bon usage. Louvain-la-Neuve: DeBoeck-Duculot. 13rd edition.

Gross, M. 1973. Conjonctions doubles: l'exemple de 'ni...ni'. *Rapport de Recherche du LADL*, 1. Université Paris 7.

Johannessen, J.B. 1998. Coordination. New York: Oxford University Press.

Kayne, R. 1994. The Antisymmetry of syntax. Cambridge: MIT Press.

Link, G. 1983. The logical analysis of plural and mass terms: a lattice-theoretic approach. In *Meaning, use and interpretation of language*, R. Bäuerle, C. Schwarze, A. von Stechow (eds). Berlin: de Gruyter.

Piot, M. 2000. Les conjonctions doubles du français. *Lingvisticae Investigationes*. 23: 1. 46-76. Amsterdam: John Benjamins

Pollard, C. Sag, I 1994. *Head-driven phrase structure grammar*. Chicago: The University of Chicago Press.

Progovac, L. 1998. Conjunction doubling and 'avoid conjunction principle'. In M. Dimitrova-Vulchanova, L. Hellan (eds). *Topics in South Slavic Syntax*. Amsterdam: John Benjamins.

Ross, J.R. 1967. *Constraints on variables in syntax*. PhD thesis. MIT. [reprint Infinite Syntax!, Norwood, 1986.]

Sag, I. Gazdar, G. Wasow, T. Weisler, S. 1985. Coordination or how to distinguish categories. *NLLT*. 3. 117-171.

Sag, I. 2003. Coordination and underspecification. In J.-B. Kim, S. Wechsler(eds). *HPSG'2002* conference proceedings.

Salkoff, M. 1979. Analyse syntaxique du français: grammaire en chaîne. *Lingvisticae Investigationes: supplementa*. Amsterdam: John Benjamins.

Skrabalova, H. 2003. La syntaxe de la coordination [conj DP conj DP]. Workshop on coordination. Université Paris 7, mars 2003 (unpublished).

Swart, H. (de) 2001. Négation et coordination: la conjonction 'ni'. In Bok-Bennema et *al.* (eds). *Adverbial Modification*. Rodopi. 109-124.

Zamparelli, R. 2000. Distributive conjunction and sentence reduction. Ms.

Zoerner, E. 1999. One coordinator for all. Linguistic Analysis. 29.3-4. 322-341.