Goal

- Identify the distribution of correlative items, concluding with the existence of two kinds of structures: **Conj...Conj et Adv... (Conj) Adv**
- Argue that *şi... şi (and... and)* and *nici... nici (neither... nor)* are adverbs, instead of conjunctions.
- Provide a syntactic analysis suitable for these two structures (symmetric vs. asymmetric)
- Describe Romanian data in HPSG

French seems to share with Italian and Spanish the structure of these coordinations. Consequently, French will be taken as representative and contrasted with Romanian.

1. Introduction

- 2 kinds of coordinate structures:
  (i) Simple coordination (1a-b), where the connector will appear before the last coordinate, and optionally between the precedent terms:

  (1)  
  a. Paul a appris [l’espagnol **et** le français]. (French)  
  b. Paul has learnt [Spanish **and** French]. (English)

  (ii) Doubling coordination (2a-b), where the connector must take place before every coordinate term:

  (2)  
  a. Paul a appris [**et** l’espagnol **et** le français]. (French)  
  b. Paul has learnt [both Spanish **and** French]. (English)

- Proposed terminologies for second type of coordination :
  - **Double conjunctions** (Progovac 1998, Piot 2000 et Mouret 2005): appropriate terminology for languages such as French (where couples *et... et (and... and)*, *ni... ni (neither... nor)*, *ou... ou, soit... soit (either... or)*, are conjunctions instead of adverbs). They are inappropriate for Germanic languages, where the correlative items are lexically and syntactically different: *and, nor* and *or* are considered as simple conjunctions, whereas initial elements *both, neither* and *either* are taken as focus-sensitive adverbs.
  - **Discontinuous conjunctions**, **ConjP adverbs**, **conjunctional adverbs**, **correlative adverbs**, **initial coordination**: to stand for the morphosyntactic status of initial items; these terms are useful for Germanic languages, but not for Romance.
  - **Correlative coordination**, **Doubled coordination** (Mouret 2005 et 2007). These are the terms preferred for the present analysis, for they allow us to describe Romanian data in a uniform way within the frame of Romance.
languages, taking into account the phenomena of correlative coordination of adverbs.

This definition has different dimensions (cf. Deulofeu 2001):

- morphologic: clear cut marking (belonging to morphologically related series)
- syntactic: particular behaviour of items
- phonologic: specific intonation
- semantic: association with focus

2. Inventory of correlative items and their categorical status

2.1. Inventory of correlative items

<table>
<thead>
<tr>
<th>Table 1. Correlative structures of romance languages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disjunctive Type</strong></td>
</tr>
<tr>
<td>sau...sau,</td>
</tr>
<tr>
<td>ori...ori</td>
</tr>
<tr>
<td>fie...fie</td>
</tr>
<tr>
<td><strong>Negative Type</strong></td>
</tr>
<tr>
<td><strong>Conjunctive Type</strong></td>
</tr>
</tbody>
</table>

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

According to the data presented in table 1, the following observations can be made:

- Correlated terms are identical (isomorphic⁴) in the four Romance languages.
- Most items may appear as simple conjunctions in non-correlative coordination: sau, ori (Rom.), ou, nì (Fr.), o, nè (Italian.), o, ni (Spanish.):

(3) a. Nu l-am văzut pe Ion sau pe Paul
b. I have not seen John or Paul

- Some structures are exclusively used in correlative coordination: fie...fie (Rom.), soiť...soiť (Fr.), sia...sia (it.):

(4) a. Predau *(fie) spaniola fie italiana.
b. I teach (either) Spanish or Italian.

- According to the meaning conveyed by the correlative construction, three types can be distinguished: conjunctive (where a collection of items is implied), disjunctive (if a disjunction of items is to be found) and negative (which stands for a polar negative variant of disjunction).
- Initial marking of coordination is only possible in doubled coordination constructions in Romance (5a-b for French); Conversely, Romanian allows the presence of şi...şi and nici...nici in constructions different from coordination (6a-b). This justifies its interpretation as an adverb in a morphosyntactic level, as well as an asymmetric syntactic analysis:

(5) a. Paul a invité et Jean et Marie.

Paul has invited and John and Marie

---

¹ We leave aside the structures like Adv... Conj of type nu numai...ci şi (Rom.), non seulement...mais aussi (Fr.), non solo...ma anche (It.), no sólo...sino (Spa.), (not only...but also), where the terms in correlation are different (heteromorphic).
b. *Paul a invité et {Jean / ses deux amis}.
   ‘Paul has invited and {John / his friends’}

(6) a. Paul i-a invitat şi pe Ion şi pe Maria.
    b. Paul {l-a / i-a} invitat şi {pe Ion / pe cei doi prieteni ai săi}.
   ‘Paul has invited John and Mary’

2.2. Categorical status
- General schema for doubled coordination in Romance languages:
  
  Conjunction (Conj) XP Conjunction (Conj) YP

Romanian - a different case
- This Scheme is only applied for disjunctive meaning in Romanian; for the rest, the structures şi...şi (and... and) and nici...nici (neither... nor), the appropriate scheme is the following:
  
  Adverb (Adv) XP (Conj) Adverb (Adv) YP

Arguments for the interpretation of şi...şi and nici...nici as adverbs:
- A coordinating conjunction can be placed before the second coordinating item: şi (‘and’) or dar (‘but’) (7):

(7) a. Manolescu scrie şi poezie şi şi proză.
    Manolescu écrit ADV poésie CONJ ADV prose
   ‘Manolescu writes poetry and prose.’
  b. La petrecere, va veni şi Daniel, dar şi Mircea.
    To the party, will come ADV Daniel CONJ ADV Mircea
   ‘Daniel and Mircea will come to the party’
  c. Ioana nici nu cântă {şi / dar} nici nu dansează.
    Ioana ADV NEG sing CONJ ADV NEG dance
   ‘Jean neither sings nor dances.’

- Semantically, they are modifiers which may appear in other constructions: şi (also), nici (neither)) (see table 2):

(8) a. A venit şi Traian la petrecere, deşi nu mă aşteptam.
    ‘Also Traian has come to the party, even if I didn’t expect it.’
  b. Din păcate, nici Ion n-a venit la petrecere.
    ‘Unfortunately, John hasn’t come to the party either.’
  c. De cînd te aştept, am şi terminat romanul început ieri.
    ‘While waiting for you, I’ve even finished the novel I started yesterday.’
  d. De rău ce mi-a fost, nici n-am mâncat azi.
    ‘I’ve been so sick that even today I haven’t eaten anything.’

- Even if the first coordinating item is absent, a conjunction may always be placed before the second (9):

(9) a. Va veni Paul, { ??, / dar / şi} şi Mircea.
    ‘Paul will come, and Micea also’
  b. N-am văzut-o pe Maria {, / ş} nici pe Ioana.
‘I haven’t seen Mary and neither Johanna.’

- şi may appear in a complex verbal form (though this position is limited to a restraint category of adverbs); Romanian conjunctions are never placed between auxiliary and verb (10):

(10) a. Cît despre noul roman, Mirela vrea [să-l şî citească, să-l şî traducă].

   [SUBJ le ADV lire, SUBJ le ADV traduire]

   ‘As for the new novel, Mirela wants to read and translate it.’

b. Ea [a şi învăţat, a şi scris] lecţia pentru miine.

   [Aux ADV Vb, Aux ADV Vb]

   ‘She has learnt and written the homework for tomorrow.’

- nici is never a simple conjunction (11):

(11) a. * Dan nici Maria n-au plecat.

   Dan ni Marie NEG sont partis.’

b. Dan n-a plecat {, / şî} nici Maria.

   ‘Dan hasn’t left, and Mary neither’

The different distribution of şi and nici regarding verb coordination must be noted: nici precedes always the verb (auxiliary included) (12a-b). By contrast, şi can appear between the auxiliary and the lexical verb (13a-b).

(12) a. Nici nu am mâncat, nici nu am băut astăzi.

   Adv NEG AUX VB, Adv NEG AUX VB aujourd’hui

   ‘I have neither eaten nor drunk today’

b. * Nu am nici mâncat, nici băut astăzi.

   NEG AUX Adv VB, Adv VB aujourd’hui

   ‘I have neither eaten nor drunk today’

(13) a. Astăzi, am şî băut, am şî mâncat.

   aujourd’hui AUX Adv VB, AUX Adv VB

   ‘Today, I have drunk and eaten’

b. * Astăzi, şî am băut, şî am mâncat.

   aujourd’hui Adv AUX VB, Adv AUX VB

   ‘Today I have drunk and eaten’

Conclusions about the categorical status:

- Even though Romanian’s correlative behaviour resembles the rest of Romance languages’, only disjunctive structures are of type Conj… Conj en Romanian (sau… sau, ori… ori (ou… ou), fie… fie(soit… soit))
- Romanian presents a specificity: there is a type Adv… (Conj) Adv, in structures with şî… şî and nici... nici. Correlation between these adverbs can be achieved through juxtaposition, or conjunctions şî (‘and’), and dar (‘but’)
- Romanian seems to have two homonyms words: a (never doubled) şî₁ conjunction and an adverb şî₂ (which may be doubled in correlative coordination)
- Correlative coordination is achieved in Romanian either by conjunctions (with a disjunctive meaning), or by adverbs (with conjunctive or negative meaning).
Table 2.

<table>
<thead>
<tr>
<th></th>
<th>Romanian</th>
<th>French</th>
<th>Italian</th>
<th>Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>« NI »</td>
<td>simple conjunction</td>
<td>—</td>
<td>ni</td>
<td>nè</td>
</tr>
<tr>
<td></td>
<td>correlative conjunction</td>
<td>—</td>
<td>ni...ni</td>
<td>nè...nè</td>
</tr>
<tr>
<td></td>
<td>simple adverb</td>
<td>nicl</td>
<td>non plus</td>
<td>neppure</td>
</tr>
<tr>
<td></td>
<td>correlative adverb</td>
<td>nicl...nici</td>
<td></td>
<td></td>
</tr>
<tr>
<td>« ET »</td>
<td>simple conjunction</td>
<td>ş1</td>
<td>et</td>
<td>e</td>
</tr>
<tr>
<td></td>
<td>correlative conjunction</td>
<td>—</td>
<td>et...et</td>
<td>sia...sia$_c$</td>
</tr>
<tr>
<td></td>
<td>simple adverb</td>
<td>ş1$_2$</td>
<td>aussi</td>
<td>anche</td>
</tr>
<tr>
<td></td>
<td>correlative adverb</td>
<td>ş1$_2$...ş1$_2$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Syntax of doubled coordinations
3.1. Functions
3.1.1. Conjunction status
- 2 hypothesis concerning the function of conjunction:
  (i) Coordination = exocentric construction (without head) → conjunction is a marker (Sag et al. 1985, Beavers & Sag 2004, Huddleston & Pullum 2002 and generally non-transformational grammar researchers)
  Counterarguments:
  - Abeillé 2005: Marked clauses can be coordinated, and conjunctions must preserve their marking identity:

  (14)  a. Vreau să vin acasă ș i (*să) mănânc repede. (Romanian)
    que_SUBJ  et que_SUBJ
    ‘I want to come to the house and eat quickly’
  b. J’essaie d’arriver à temps et ?? (de) résoudre ton problème. (French)
    ‘I try to arrive in time and solve your problem’
  c. Un garçon que j’ai vu hier et (*qu’) on le cherchait depuis des semaines
    ‘A boy who I’ve seen yesterday and (who) we had been searching for weeks’

  - Conjunctions may block case assignation (Spanish):

    (15)  a. para él y { yo / * mi } (Spanish)
    For him_ACC and {me_NOM / * me_ACC}
    b. * para yo y él
    for me_NOM and him
    c. para {mi / * yo}
    for {me_ACC / me_NOM}

  (ii) Coordination = endocentric construction → conjunction - head (Kayne 1994 et Johannessen 1998)
  - Conjunction is a semantic functor, contributing to the interpretation of coordinate items: conjunction / disjunction /semantic negation
  - Conjunction is responsible for plural verb agreement with two singular subjects:

    (16)  Une pomme et une orange {sont / * est} fortement recommandées quand il fait très chaud.
    ‘An apple and an orange are strongly recommended when it is very hot’

5
- Differently from other items (complements or adjuncts), conjunctions cannot be repeated:

(17) a. souvenet *souvent
    b. * une pomme et une orange et

- The head determines complement order in the sentence (in head-initial (SVO) languages the head precedes the complement, whereas the head follows it in head-final (SOV) languages)
- The conjunction - weak head (Tseng 2001, Abeillé 2003 et 2005) : inherits most of syntactic features of its complement ; therefore, the conjunction will not project a Conj’ phrase, but a clause whose category will be a projection of the complement’s category : a conjunction taking a nominal complement will project a nominal clause, etc.

3.1.2. Status of Romanian adverbs şi and nici
Adverbs şi and nici - are intensifying modifiers (a different subclass among the adverbs: They behave syntactically as clitics, and have particular syntactic and semantic properties: they are partially autonomous, and they can appear only with a phonetic and lexical support with which they form a syntactic and accentual unit.

3.1.3. Status of coordinate clauses
- Two kinds of coordinate clauses (cf. Abeillé 2005) : (i) non-head clause (18a) where coordinates are at the same hierarchical level, and (ii) head-adjunct clauses (18b) for disparate and mobile conjunctions.
- Every clause presents he feature CONJ, which is empty for the first member, and non-empty for the second, which is introduced by a conjunction :

(18)  a. b.

3.2. Syntactic structures
- Asymmetric analysis consider correlative items as modifiers of the entire coordination; In English, every conjunction selects for a specific correlative, (both... and, either... or, neither... nor), which is in free distribution:

(19) a. Jane ate [either rice or beans].
    b. Jane either ate [rice or beans].
    c. Either Jane ate [rice or beans].
    d. [Jane either ate rice, or she ate beans].
3.2.2. Symmetric structure for Romance Languages (Conj... Conj type)
- Each conjunction is at the same level within each conjunct - there is no movement of the correlative element:

(21) a. *Paul a ou acheteré des pommes ou des bananes.
    b. *Paul fie a cumpărăt mere fie banane.
    ‘Paul has either bought apples or bananas’

- Regarding French correlative coordination, Mouret (2005) proposes an asymmetric structure (22a). His arguments: correlatives combine with the first term of the coordination, instead of the whole coordinated clause (every sequence [Correl / Conj X] forms a prosodic group distinguished by an initial accent). Furthermore, they do not present any of the syntactic characteristics of adverbs.
- Regarding Romanian, only structures of the type sau... sau, ori... ori, fie... fie) present a symmetric structure (22b):

(22) a.  

\[ \begin{align*}
\text{SY} & \\
\text{SX} & \text{SX} \\
\text{Conj} & \text{SN} & \text{Conj} & \text{SN} \\
\text{et} & \text{Paul} & \text{et} & \text{Marie} \\
\end{align*} \]

b.  

\[ \begin{align*}
\text{SN} & \text{SN} \\
\text{Non-tête} & \text{Non-tête} \\
\text{SN} & \text{SN} \\
\text{Tête} & \text{ComplT} \\
\text{SN} & \text{SN} \\
\text{Conj} & \text{SN} \\
\{\text{fie} / \text{ori} / \text{sau}\} & \text{Paul} \\
\{\text{fie} / \text{ori} / \text{sau}\} & \text{Maria} \\
\end{align*} \]

3.2.3. Asymmetric structure for Romanian Adv... (Conj) Adv type (for conjunctive meaning şi... şi and for negative nici... nici)
- The first occurrence of the correlative adverb is the highest in the structure regarding the second verb, since a conjunction can be placed before the second conjunct:

(23) Am mâncat şî1 ceapă şî1 şî2 usturoi.2
    ‘I’ve eaten onion and garlic’

---

2 See the first part conclusions about the homonymy of Romanian word şî.
- But this asymmetry is different from the one observed for Germanic languages (where the correlative scopes over the entire coordination).

4. HPSG representation of Romanian data

The conjunct phrase (clauses with the form [ Conj X]) or head-complement-phrase

(25) HFP : Head Feature Principle

Headed phrase \(\Rightarrow\)

\[
\begin{array}{l}
[\text{CLAUSE}[\text{SYNSEM}/[1]]] \\
[\text{HEAD} - \text{DTR} < [\text{SYNSEM}]/[1]] >
\end{array}
\]

(26) Head-complement-phrase representation

Head-complement-phrase \(\Rightarrow\)

\[
\begin{array}{l}
[\text{CLAUSE}[\text{COMPS}[A]]] \\
[\text{HEAD} - \text{DTR} < [\text{COMPS} < [1],..,[n] > +[A]] > \\
[\text{NON} - \text{HEAD} - \text{DTR} < [\text{SYNSEM}[1],..,[\text{SYNSEM}[n]] >]
\end{array}
\]

- Coordinated clause - non-head phrase (Pollard et Sag 2004, Abeillé 2005):

(27) Coordination phrase representation

Coordination-phrase \(\Rightarrow\)

\[
\begin{array}{l}
[\text{PHRASE} [\text{VALENCE}][2]] \\
[\text{SLASH}[3]] \\
\text{NON} - \text{HEAD} - \text{DTR} [\text{HEAD}[1]] + \text{non} - \text{empty} - \text{list} [\text{VALENCE}[2]] \\
[\text{SLASH}[3]]
\end{array}
\]
(28) Lexical entry for the conjunction *sau* (‘or’):

Conj-word ⇒

This analysis is appropriate for asymmetric structures (simple and type Adv... (Conj) Adv) coordination:

(29) simple-coordinated-phrase ⇒

\[ \text{NON} - \text{HEAD} - \text{DTR} \text{liste-ne} ([\text{CONJ nil}]) + \text{list} ([\text{CONJ[1]ori/sau/si/dar}]) \]

Analysis for symmetric structures (Conj... Conj type):

(30) correlative-coordinated-phrase ⇒

\[ \text{NON} - \text{HEAD} - \text{DTR} \text{ liste-ne} ([\text{CONJ[1] fie / ori / sau}]) \]

(31)
(32) a. şi Ion şi şi Maria
Adv Ion et Adv Maria
‘John and Mary’
b. nici Ion şi nici Maria
Adv Ion et Adv Maria
‘Neither John nor Mary’

-Structures in (32) resemble French comparatives of type Plus il court (et) plus il est fatigué (the more he runs, the more tired he is) (Abeillé et Borsley 2006)
- to account for distributiveness we have used a feature CORREL

(33) Lexical entry for the adverb şi

\[
\begin{array}{l}
\text{ADV } şi \\
\text{MOD } [1] \\
\text{GAUCHE CORREL } şi
\end{array}
\]

(34) Lexical entry for the conjunction şi

Conjunction şi ⇒

\[
\begin{array}{l}
\text{CONJ } şi \\
\text{TETE } [1]
\end{array}
\]

(35) COMPS ([TETE [1], GAUCHE [CORREL[2]]])

\[
\begin{array}{l}
\text{GAUCHE } \text{[CORREL[2]]}
\end{array}
\]

(36)

\[
\begin{array}{l}
\text{şi } \\
\text{Ion } (şi) \\
\text{şi } \\
\text{Maria}
\end{array}
\]
Outlooks
- Treatment of elliptic and constructions (for structures with singular agreement when a plural is expected)
- A semantic approach of correlative structures: The notions of focus, as applied to adverbs (focus particles?), and negation for negative meaning (Rom. nici... nici et Fr. ni... ni,(neither... nor)).

Selected bibliography
Sémantique Semantics of doubled coordinations

- Simple coordination - 2 interpretations depending on whether they are interpreted within the propositional domain or not:

()  
  a. Paul [chante et danse].  
  b. Paul est allé [à Paris et à Londres].  
  c. Paul est [riche et intelligent].

Paul sings and dances  
Paul has been to P. and London  
Paul is rich and intelligent

()  
  a. [Paul et Marie] forment un couple heureux.  

‘Paul and Mary for a happy couple’  
‘Many urgency doctors and nurses of the hospital have been appealed’

()  
  a. Paul a et chanté et dansé.
  b. Paul est allé à Paris et à Londres.
  c. Paul est et riche et intelligent.

Paul will arrive in two or three days

-Doubled coordination: only the propositional interpretation is available:

()  
  a. Paul a et chanté et dansé.
  b. Paul est allé à Paris et à Londres.
  c. Paul est et riche et intelligent.

Constraints:
- Doubled conjunctive coordination of NP are incompatible with a collective interpretation

()  
  *Et Paul et Marie forment un couple heureux.

‘Paul and Mary for a happy couple’

- Coordination of nominal sequences under the scope of a determiner are excluded:

()  
  *Plusieurs et médecins urgentistes et infirmiers de cet hôpital ont été convoqués.
‘Many urgency doctors and nurses of the hospital have been appealed’

Conclusion: Doubled coordinations are always interpreted in the propositional domain as a conjunction or a generalised disjunction.

Discursive Proprieties
- Symmetric relation, and asymmetric for simple coordination; only symmetric relation for correlative coordination.

Contextual Proprieties
- « emphatic » variant of simple coordination