Reconstructing ellipsis: the case of Gapping in Romanian

1. Introduction
Non-constituent Coordination phenomena (e.g. Right Node Raising, Argument Cluster Coordination and Gapping) remain a challenge for both derivational and non derivational framework relying on phrase structure, the most widespread view being that apparent ‘non-constituents’ involve some ‘elliptical’ process (conceived either as a full (syntactic) reconstruction, i.e. coordination taking place between two full sentences – cf. Hartmann 2000, Merchant 2004, Chaves 2005 –, or as a ‘semantic’ reconstruction with syntactic parallelism, i.e. coordination of a full sentence with a fragment – cf. Ginzburg & Sag 2000, Culicover and Jackendoff 2005).

The basic issue raised by gapping constructions such as (1) (where a complete sentence is coordinated with some elliptical one missing its head verb and possibly some other dependents) is the one raised by ellipsis in general, namely to determine at which level the missing material is to be reconstructed.

(1) a. [John ate an apple] and [[Mary] [a banana]].
   b. [Jim flew to London on Sunday] and [[[Mary] [to Paris] [on Thursday]]].
   c. [John tried to begin to write a poem] and [[Bill] [a song]].
   d. [John will bring some flowers to Mary] and [either [[Bill] [some wine]] or [[Jane] [some whiskey]]].

Here we provide new data from Romanian against approaches that rely on syntactic reconstruction, with deletion (or some null proform) in the ellipsis site, as schematized in (2a). We then show some problems with accepting parallelism as a strong constraint. Finally we show how a fragment-based analysis such as (2b), with semantic reconstruction can be handled formally within a construction-based HPSG framework.

(2) a. Syntactic Reconstruction
   b. Semantic Reconstruction

2. Problems with the syntactic account
First, the syntactic account encounters problems when the missing verb in the fragment cannot be reconstructed: a range of connectives such as ca şi, la fel ca, precum şi (‘as well as’, ‘in the same way’), as in (3) examples, may combine with a gapped fragment while excluded with finite verbal categories.

(3) a. Poezia pe care eu o am de învăţat şi (*pe care) Maria de comentat, e dificilă.
   b. Vreau ca Ion să vină azi, iar (*ca) Petre mâine.

Romanian requires that subordinate clauses be marked in the structure of the subordinate clause itself. However, in gapping cases, there must be a lack of subordinate marker – (pe) care in relative clauses (4a), or complementizer că (‘that’) in complete clauses (4b).

(4) a. Poezia pe care eu o am de învăţat şi (*pe care) Maria de comentat, e dificilă.
   b. Vreau ca Ion să vină azi, iar (*ca) Petre mâine.

Furthermore, in some negative contexts, we cannot recover a finite verb (fragments in ba1 (5a), constituent negation dar nu ’but not’ (5b)):

(5) a. Lupul îşi schimbă păru, dar năravul ba (*îşi schimbă)! the wolf changes its fur, but not its bad habits
   b. Lupul îşi schimbă păru, dar nu Ioana (*îşi schimbă) năravul.

Another piece of evidence is based on semantic problems related to adverbial scope or to referential (non)identity of nominals: in (6), the adverbs probabil or tocmai only have scope

1 Ba is an adverbial item expressing propositional negation, used in popular / oral speech.
in the first conjunct, whereas, under a deletion account, one normally could recover the adverb in the second conjunct too; also, in (7a), we have referential identity in gapped fragment, while reconstructing the nominal we have two different reference sets (7b).

(6) a. Ion vrea (probabil) o casă (probabil), iar Maria o maşină.
   Ion probably wants a house, and Maria a car
   b. Maria tocmai a sosit acum 5 minute, iar Ion azi-dimineaţă.
   Maria just arrived 5 minutes ago, and Ion this morning

(7) a. Maria le-a dat la doi dintre copii mere, iar Ion pere.
   Maria gave apples to two of the kids, and Ion gave [them] pears
   b. Maria le-a dat la doi dintre copii mere, iar Ion le-a dat la doi dintre copii pere.
   Maria gave apples to two of the kids, and Ion gave pears to (other) two of the kids

Therefore, we analyze the gapped conjunct as a verbless fragment, construction available also for short answers (cf. Culicover and Jackendoff 2005):

(8) Who ate what?
   a. – Mary the cake.
   b. – Paul the bagels.

3. Problems with the parallelism constraint

The parallelism constraint as it was involved for elliptical coordination is too strong for Gapping constructions. We need a ‘semantic’ parallelism (i.e. Kontrast relation between constituents of the full sentence and elements in the cluster, cf. Hartmann 2000), but not necessarily syntactic symmetry. The constituents of the fragment may vary from their antecedents, according to grammatical category (9a-a’), case (9b), number of valents (9c-c’) or word order (10a-f), but every constituent of the cluster must obey subcategorization rules imposed by missing predicate.

(9) a. Marian citeşte [NP ziua], iar Maria [VP pe-nntuneric].
   Marian reads during the day and Maria at night
   a’. Mie îmi place [NP muzica], iar prietenului meu [VP să facă sport].
   I like music and my boyfriend doing exercise
   b. Ion oferă mere la (Acc) 3 dintre copii, iar Maria tuturor copiilor (Dat).
   Ion gives apples to (Acc-case) 3 of the children, and Maria to all the children (Dat-case)
   c. Lunea Ø merge la film, iar sora mea la muzeu.
   on Mondays, [I] go to the movies, and my sister to the museum
   c’. Ion cumpără un ziar, iar Maria o jucărie pentru fetiţa ei.
   Ion is buying a journal, and Mary a toy to his daughter

(10) a. Dimineaţa spăl eu vesela, iar seara Ioana.
   d. Dimineaţa spăl vesela eu, iar Ioana seara.
   b. Dimineaţa spăl vesela eu, iar seara Ioana.
   e. Eu spăl vesela dimineaţă, iar Ioana seara.
   c. Dimineaţa eu spăl vesela, iar seara Ioana.
   f. Eu spăl vesela dimineaţă, iar seara Ioana.

‘In the morning I wash the dishes and in the evening it’s Ioana.’

4. A possible solution within HPSG framework

We adopt the non-ellipsis approach used by Ginzburg and Sag 2000 to account for short answers (with the mention that, in opposition with short answers, we analyse gapped cluster as non-headed fragment). This analysis permits to treat uniformly both Gapping and Stripping structures. For HPSG analysis, we posit a special phrase type to account for Gapping constructions: gapped-cluster-phrase. We use the CONTEXT feature to recover one or more predicative heads, whose value is instantiated in DOM feature, to check its compatibility with the remnants. We model syntactic parallelism and semantic reconstruction, building from Ginzburg and Sag 2000 (for syntactic parallelism) and relying on the equational technique of Dalrymple et al. 1991, and Culicover and Jackendoff 2005 (for semantic reconstruction).

Selected References