

## Abstract

The paper presents a type of ellipsis similar to stripping and split conjuncts, yet irreducible to either of them. One aim of the analysis is to document the existence of this distinct ellipsis type within the class of constructions where the elided constituent is a verb or a verb phrase. It is argued that the main generative strategies, namely, deletion and null anaphora cannot be applied to this ellipsis type in order to account for it. Instead, the study shows that an approach which takes the asymmetry syntax-semantics of this construction as basic is much more successful in explaining the nature of this type of ellipsis. This alternative approach is the one offered by the HPSG framework<sup>†</sup>.

## 1 Introduction

The present paper documents the existence of a hybrid type of ellipsis that mainly occurs in coordinate structures, as the second conjunct:

- (1) John talked to the principal *and nobody else*.

The structure can be attested cross-linguistically. Here, though, I will examine its properties with respect to only one language, Romanian. In Romanian, this kind of ellipsis obligatorily contains a N(egative)-word followed by a non-identity pronoun or adverb. For this reason, it will be called here a *N-word elliptical construction* (N-wdEC). The equivalent in Romanian of (1) is (2), where the N-word is *nimeni* ('nobody' 'no one') and the non-identity item is *altcineva* ('...else'):

- (2) Ion a vorbit cu directorul *și cu nimeni altcineva*.

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Any undetected errors in this paper are mine.

The paper has two main aims: to show that this construction shares features with two other ellipsis types (namely, stripping and split conjuncts), without being, though, identical to either of them; and to prove that a ‘structural approach’ to N-wdECs (Merchant 2009) copes with numerous and significant problems, which may be avoided, if one chooses a non-structural explanation. By structural approaches I mean here PF deletion (Grinder and Postal 1971, Hankamer and Sag 1976 etc.) and the anaphora-based explanation (Lobeck 1995). By a non-structural explanation I am referring to an HPSG approach.

The structure of the paper is as follows. It is firstly shown that N-wdECs share properties with stripping constructions and split conjuncts. Then, I present features of N-wdECs which raise problems for a structural explanation. Finally, it will be shown that an analysis which does not rely on hidden structure or empty categories (the HPSG one) does not cope with the difficulties of the structural approaches. As a side consequence, it is pointed out that in the recent dispute about the status of the N-words (N-words: a kind of NPIs or negative quantifiers) the HPSG analysis independently supplies an argument that N-words are negative quantifiers.

## 2 N-wdEC: Structure and Typological Membership

Just like other elliptical structures, N-wdECs contain a visible part (the *remnant*, R) and an ‘invisible’ part (the term is metaphorical), the *elided material* (EM). EM is identified through its *antecedent* A (which lies in the first conjunct) – the antecedent being a sequence that allows for the interpretation of what is intuitively ‘missing’ in the second conjunct. R, in turn, is identified as the opposite pair of the *correlate* C, (which also lies in the first conjunct). For example in (2), rewritten below as (3), A is the verb-subject sequence *Ion a vorbit*, (‘John talked’), EM is the silent ‘sequence’ that corresponds to A in the elliptical clause, R is *cu nimeni altcineva* (‘to nobody else’), and C is *cu directorul* (‘to the principal’):

- (3)  $A[ \text{Ion a vorbit} ]_C[ \text{cu directorul} ] \quad \text{și} \quad EM[ ]_R[ \text{cu nimeni altcineva} ]$   
 $A[ \text{John has talked} ]_C[ \text{with principal-the} ] \text{ and } EM[ ]_R[ \text{with nobody} ]$   
 other one]  
 ‘John talked to the principal and nobody else’

From a typological point of view, N-wdECs are ellipsis in which EM is equivalent to the head verb. In this respect, they belong to same family with gapping, sluicing, stripping and split conjuncts. On the other hand, just like sluicing, stripping and split conjuncts, but unlike gapping, N-wdECs currently display only one remnant (but see below, the end of this section).

When compared to sluicing, stripping and split conjuncts, N-wdECs mostly resemble stripping, with which they share a number of general features (for stripping features, see Lobeck 1995: 27-28). Here are two of them:

(i) N-wdECs cannot have a subordinating conjunction in the initial position:

- (4) Am vorbit cu directorul *\*deși cu nimeni altcineva*  
I talked to principal-the *although with nobody else*

(ii) EM cannot precede its antecedent:

- (5) *\*Și cu nimeni altcineva* a vorbit Ion cu directorul  
Intended: ‘*And nobody else* John talked to the principal’

The conclusion that N-wdECs are stripping structures, though, is rather hasty. Recent studies (Abeillé 2005, 2006) have convincingly argued that stripping constructions are in fact a heterogeneous family of structures, very close to split conjuncts but not identical to them. The features that allow for a distinction between the two families are constituency, syntactic function, distribution and prosody. I will enumerate them below and I will show that N-wdECs cannot be identified with either of them.

*Stripping constructions* have a specific constituent pattern, which is *Conj (XP) Propositional Adverb* (for example *Are you coming **or not**?*). This pattern plays the syntactic role of a coordinate member in a coordination structure. The construction does not have multiple distribution, which means that the structure only occupies the final position in the coordination (compare *John will come **but Mary certainly not*** with *\*John **but Mary certainly not** will come*). Finally, the structure displays an intonation boundary before the propositional adverb (*John will come **but Mary # certainly not***).

*Split conjuncts*, on the other hand, have a distinct constituent pattern: *Conj (Adv) XP* (for example, *John will come **but not Mary***). They play the syntactic function of *adjunct* in a conjoined structure and they may have multiple distribution (*John **but not Mary** will come*).

Also, split conjuncts have incidental prosody (that is, an intonation independent of the intonation of the first conjunct, for example *John will come # **but not Mary***).

A *N-wdEC* is distinct from stripping and split conjuncts, because it has properties that neither stripping nor split conjuncts have, and also it shows common properties with stripping and split conjuncts. Its constituency is completely different from stripping or split conjuncts, because it consists of an N-word plus a non-identity adverb/pronoun obligatorily. Nevertheless, N-

wdECs share with split conjuncts the properties of multiple distribution (6) and incidental prosody (7):

- (6) Am adus bomboane copiilor *și nimic altceva*/Am adus bomboane, *și nimic altceva*, copiilor  
 I have brought candies to children-the and nothing other/ I have brought candies and nothing other to children-the  
 ‘I brought candies to the children and nothing else’
- (7) Ion a vorbit cu directorul # *și cu nimeni altcineva*  
 ‘John talked to the principal # and nobody else’

Unlike split conjuncts and similar to stripping, N-wdECs observe the Coordination Structure Constraint (CSC), a diagnostic test for coordinate constructions. Extraction out of a single constituent fails ((8) b, c). The only allowed extraction is out of both conjoined constituents, concomitantly (8) (d):

- (8) (a) Lenin voia puterea *și nimic altceva*  
 ‘Lenin wanted the power and nothing else’
- (b) ?? Ce voia \_ Lenin *și nimic altceva* ? (extraction out of the first conjunct)  
 What wanted \_ Lenin and nothing else?
- (c) \*Ce voia puterea Lenin *și* \_ ? (extraction out of the second conjunct)  
 What wanted power-the Lenin and \_ ?
- (d) Ce voia \_ Lenin ? (parallel extraction)  
 ‘What did Lenin want ?’

In face of this set of data, it is appropriate to conclude that N-wdECs cannot be assimilated either to stripping or split conjuncts. Nor may an N-wdEC be considered a supertype for these ellipsis types, because this would amount to saying that stripping and split conjuncts each inherits the N-word feature of their supertype (which is utterly false). So, it is obvious that N-wdECs rather represent a distinct type of ellipsis which is a mix of stripping or split conjuncts.

The last fact of ellipsis typology discussed here is that N-wdECs may also have variants with *two remnants*, which makes them similar to gapping<sup>1</sup>. In the example below, the second conjunct contains two remnant annotated R<sub>1</sub> and R<sub>2</sub>:

- (9) Am adus <sub>C1</sub>[copiilor] <sub>C2</sub>[bomboane] *și* <sub>R1</sub>[nimănui] <sub>R2</sub>[nimic altceva]

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<sup>1</sup> I owe this type of examples to Ana-Maria Barbu.

I brought <sub>C1</sub>[to children-the] <sub>C2</sub>[candies] and <sub>R1</sub>[to nobody] <sub>R2</sub>[nothing else]

The structure is emphatic, with the emphatic accent on the first N-word *nimănu* ('to nobody'). The constraint observed by the pair C2-R2 is one of linearization: if R1 immediately precedes R2, the existence of the pair C2-R2 is legitimated. On the contrary, if R1 is not adjacent to R2, the structure is bad:

- (10) \*Am adus <sub>C1</sub>[copiilor] și <sub>R1</sub>[nimănu] <sub>C2</sub>[bomboane] și <sub>R2</sub>[nimic altceva]  
 I brought <sub>C1</sub>[to children-the] and <sub>R1</sub>[to nobody] <sub>C2</sub>[candies] and <sub>R2</sub>[nothing else]

Another constraint regards the pair C<sub>1</sub>-R<sub>1</sub> and more precisely, the NP containing R1: unlike the pair C2-R2, in the pair C1-R1 (i. e. < *copiilor, nimănu*>) the non-identity item is not allowed (but it is understood):

- (11) Am adus <sub>C1</sub>[copiilor] <sub>C2</sub>[bomboane] și <sub>R1</sub>\*[nimănu altcuiva] <sub>R2</sub>[nimic altceva]  
 I brought <sub>C1</sub>[to children-the] <sub>C2</sub>[candies] and <sub>R1</sub>[to nobody else] <sub>R2</sub>[nothing else]

N-wdECs with two remnants are closer to gapping, and this strengthens their distinct position on the typological map of verb head ellipsis, if compared with stripping or split conjuncts: indeed, 'canonical' stripping or split conjuncts cannot have 'gapped counter-parts'.

### 3 Analysis

The analysis of N-wdECs concentrates upon two aspects: the phrasal nature of the construction and the elided material.

#### 3.1 N-wdECs: a Non-finite Clause

Despite iteration of case or prepositional marking between C and R (which seems to suggest that we deal with *nonclausal* constituents) N-wdECs are *clauses*. An argument in this respect comes from the semantics of the construction: the content of a N-wdEC is a proposition, and the proposition is also the semantic type of the first conjunct. For example, in the sentence *Ion o iubeste pe Ioana și pe nimeni altcineva* the entailment is that John loves nobody but Joanna. This entailment is in fact the content of the second conjunct (i.e. the elliptical phrase).

N-wdECs are *non-finite clauses*. This is shown by their distribution in coordinate structures. N-wdEC cannot combine with a clausal marker specific to finiteness (*că* ‘that’):

- (12) Ion zice că a cumpărat legume și \* că nimic altceva  
 John says that (he) bought vegetables and that nothing else

### 3.2 EM: how to (syntactically) approach it?

The position defended in this paper is that a structural approach to the syntax of the ‘silent sequence’ fails. To show that, I will put to work the representatives of this type of approach and I will argue that neither of them is satisfactory. The structural approaches under examination are the Phonological Form (PF) deletion strategy and the anaphora-based explanation.

#### 3.2.1 The PF deletion strategy

Three arguments will be used to show that PF deletion is not a satisfactory explanation for N-wdECs: the argument of the missing antecedent, the argument of the differences between C and R and, also, between EM and A; and the argument of the syntactic differences between the elliptical phrase and its non-elliptical counterpart. The force of these arguments is variable. Nevertheless, they all converge towards the conclusion that deletion is not the right explanatory device for the type of ellipsis examined here.

##### 3.2.1.1 The missing antecedent argument

Grinder and Postal (1971) showed that there are ellipses exclusively explained by means of deletion. According to these authors, VP ellipsis is one of them<sup>2</sup>. With Grinder and Postal, deletion ellipsis is characterized by the missing antecedent phenomenon. The missing antecedent is instantiated below in (13)(b) (examples are borrowed from Hankamer and Sag 1976:403-404):

- (13) (a) I’ve never ridden a camel but Ivan’s ridden a camel<sub>i</sub> and he says it<sub>i</sub> stank horribly.  
 (b) I’ve never ridden a camel but Ivan has ~~ridden a camel~~ and he says it<sub>i</sub> stank horribly.

In (13) (b), the clause *it stank horribly* contains the pronoun *it* which has no visible antecedent in the elliptical clause *Ivan has ~~ridden a camel~~*. Despite

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<sup>2</sup> VP ellipses are also subsumed by Hankamer and Sag (1976) to the class of ‘deletion (or surface) anaphora’

that, the pronoun *it* is correctly used, which means that *it*, though, has an antecedent. According to Grinder and Postal, the antecedent is the NP *a camel* in the clause *Ivan's ridden a camel* from the sentence (13) (a). However, as the NP *a camel* does not also occur in the elliptical clause of (13) (b), it follows that the antecedent of the pronoun *it* in (13) (b) is simply missing (or deleted). Grinder and Postal's argument in this sense is that the antecedent of *it* in (13) (b) cannot be the overt NP *a camel* (in the first conjunct of the coordination, *I've never ridden a camel*); this NP cannot be the antecedent of *it*, because, if the first conjunct and the third are put together in a sentence (14, below), the pronoun *it* is left with no antecedent:

(14) \*I've never ridden a camel, and it stank horribly.

So, Grinder and Postal's conclusion is that the anaphoric link is in fact achieved in (13) (a) and inherited by (13) (b). This means that (13) (a) has to be considered an intermediary between the surface structure (13) (b) and the deep structure of (13) (b). The move from (13) (a) to (13) (b) is just deletion. With Grinder and Postal, no other operation or deep structure representation is able to account for this anaphoric link.

From the point of view of this test, N-wdECs *cannot* be considered an ellipsis obtained by deletion, because N-wdECs fail to exhibit the missing antecedent phenomenon. Let the following parallel examples be:

(15) (a) Am pus o carte<sub>i</sub> în raft și nu am pus o carte<sub>i</sub> nicăieri altundeva, dar acum nu o<sub>i</sub> mai gădesc.

'I put a book<sub>i</sub> on the shelf and I put a book nowhere else but now I do not find it any more.'<sup>3</sup>

(b) Am pus o carte<sub>i</sub> în raft și ~~nu am pus o carte~~ nicăieri altundeva, dar acum nu o<sub>i</sub> mai gădesc.

'I put a book<sub>i</sub> on the shelf and ~~I put a book~~ nowhere else but now I do not find it<sub>i</sub> any more.'

Notice that (15) (a)-(b) differ in one semantic respect from (13) (a)-(b). The entailment allowed by (13) (a)-(b) is something like this: *no camel is such that the speaker has ridden but there is (at least) one camel that Ivan has ridden*.

The entailment of (15) (a)-(b), is different: *there is a book that I put on the shelf and I didn't put anywhere else*. This time, the NP *o carte* ("a book") in

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<sup>3</sup> Notice that even if (15) (a) sounds strange this is not ruling it out, because, according to the framework in which Grinder and Postal work, (15) (a) is merely an intermediary structure between the surface structure (15) (b) and the deep structure of (15)(b). And after all, (15) (a) is pragmatically weird but not grammatically ill-formed.

the first conjunct necessarily denotes the book denoted by the same NP in the second conjunct.

These semantic details turn out to be crucial for the anaphoric link between the pronoun *o* (“it-FEMININE”) and its antecedent: for, unlike (13) (b), the antecedent of *o* in (15) (b) is the NP *o carte* (‘a book’) in the first clause (i. e. *am pus o carte în raft* - “I put a book on the shelf”) of the sentence. The proof for it is that if the first and the third clause are put together in a sentence (16, below) the pronoun *o* (“it-FEMININE”) has as antecedent the NP *o carte* (“a book”) in the first clausal conjunct:

- (16) *Am pus o carte<sub>i</sub> în raft dar acum nu o<sub>i</sub> mai găsesc.*  
 ‘I put a book<sub>i</sub> on the shelf but now I do not find it<sub>i</sub> any more.’

This shows that in (15) (b), the situation is the same: the antecedent does not need to be considered as occurring in the deleted sequence but in the first conjunct:

- (15) (b) *Am pus o carte<sub>i</sub> în raft și nicăieri altundeva, dar acum nu o<sub>i</sub> mai găsesc.*  
 ‘I put a book<sub>i</sub> on the shelf and nowhere else but now I do not find it<sub>i</sub> any more.’

Deletion, therefore, does not appear to be the device required to explain the ellipsis in N-wdECs.

### 3.2.1.2 *Connectivity effects and morpho-syntactic reconstruction in the ellipsis site*

A chief hypothesis of the PF deletion is that EM is syntactically structured but unpronounced. In essence, this amounts to say that an elliptical phrase has to have a non-elliptical counter-part. This hypothesis has clearly emerged in the previous discussion on the missing antecedent phenomenon.

Under this hypothesis, the non-elliptical phrase is not directly accessible. Its existence has to be inferred (and hence reconstructed) from other data in the linguistic surroundings of the EM. In the case of N-wdECs, the existence of the non-elliptical phrase is firstly inferred from the identity of case or prepositional marking between C (in the first conjunct) and R in the second conjunct. This is what Merchant (2009) calls a ‘connectivity effect’:

- (17) <sub>A</sub>[*Ion a vorbit*] <sub>C</sub>[*cu directorul*] și <sub>EM</sub>[ ] <sub>R</sub>[\*(*cu*) nimeni altcineva]
- John has talked with principal-the and with nobody else

Connectivity effects are generally used to argue that syntactic reconstruction in the ellipsis site *is* possible. Nevertheless, in our case this



argument is not so relevant. Uniform preposition marking of C and R, that is, another instance of connectivity effect, may not take place, if C is an adjunct or a locative complement (18):

- (18) Ion era în bar și (\* în) nicăieri altundeva.  
John was in pub and in nowhere else.

As Bîlbîie (2011) notices, even if this type of non-identity is explained, the cost of the explanation is expensive and *ad-hoc*, given the identity of preposition marking between correlate and remnant in other cases (see above, (17)).

Valence, lexeme realization and voice of the antecedent and the reconstructed verb in the ellipsis site must also be identical. If these identities are violated, the reconstruction of EM fails; here is a violation of the subject identity and its consequence:

- (19) \*<sub>A</sub>[*Lenin* voia] puterea și <sub>EM</sub>[*Trotsky* nu voia] nimic altceva.  
Intended: ‘*Lenin* wanted the power and *Trotsky* wanted nothing else.’

Nevertheless, even with respect to these parameters there are again problematic exceptions for the reconstruction. Consider the following example:

- (20) În vacanță am dormit și nimic altceva.  
‘In vacation I slept and nothing else.’

(20) contains a N-wdEC in which the reconstruction of the elided material in accordance with the lexeme realization of the antecedent *is not* allowed. The antecedent is the verb *a dormi* (“to sleep”), but this verb cannot be reconstructed in the ellipsis site:

- (21) În vacanță am dormit și \* nu am dormit nimic altceva.  
In vacation (I) slept and (I) slept nothing else.

The only verb allowed to fill the gap in N-wdEC is the ‘lite’ verb *a face* (“to do”):

- (22) În vacanță am dormit și nu am făcut nimic altceva.  
‘In vacation I slept and I did nothing else.’

So, even the strong requirement of the lexeme identity between A and the reconstructed verb in EM may be sometimes violated without consequences, in the case of N-wdECs<sup>4</sup>.

Other differences between A and the reconstruction of EM occur, as well, and deletion must be able to deal with them. These differences regard the person, number, tense, mood and the verb ‘extended morphology’ (that is, affixes and clitics incorporated by the lexical verb<sup>5</sup>). For example, in (23) the verb in A is in the first person, whereas the reconstructed verb is in the third:

- (23) Eu <sub>A</sub>[*am spus asta*] și nimeni altcineva <sub>EM</sub>[\**nu am spus asta/nu a spus asta*]  
 I <sub>A</sub>[have said-1<sup>st</sup>SG that] and nobody else <sub>EM</sub>[not have said-1<sup>st</sup>SG/not has said3<sup>rd</sup>SG that]

Also, in (24), the verb in A incorporates a pronominal affix which is responsible for the direct object clitic doubling (a phenomenon well illustrated in Romanian). Nevertheless, the reconstructed verb is not allowed to incorporate the same affix:

- (24) <sub>A</sub>[Ion *o iubește*] pe Ioana și <sub>EM</sub>[Ion \**nu o iubește*] pe nimeni altcineva  
<sub>A</sub>[John PRON-AFF<sub>i</sub> loves] PE Joanna<sub>i</sub> and <sub>EM</sub>[John not PRON-AFF<sub>i</sub> loves] PE nobody else

Finally, non-identical mood and tense may also appear whenever N-wdEC occur in pseudo-cleft constructions. Here is an example (25) a, along with its annotation (25) b:

- (25) (a) Ceea ce a făcut Ion în vacanță a fost să doarmă și nimic altceva.  
 ‘What John has done in vacation was to sleep and nothing else.’  
 (b) <sub>C</sub>[Ceea ce ] <sub>i</sub> <sub>A</sub>[*a făcut* Ion] în vacanță a fost [să doarmă] <sub>i</sub> și <sub>EM</sub>[*să nu facă*] <sub>R</sub>[nimic altceva].  
 ‘<sub>C</sub>[What] <sub>i</sub> <sub>A</sub>[John has done] in vacation was [to sleep] <sub>i</sub> and <sub>EM</sub>[to do] <sub>R</sub>[nothing else].’

In this type of examples, the antecedent of EM does not lie, as usual, in the previous conjunct (which is *să doarmă* - SUBJUNCTIVE-sleep). It lies higher in the structure, in the subject clause of the pseudo-cleft structure *ceea ce a făcut Ion în vacanță* (‘what John has done in the vacation’). Consequently, A and the reconstruction in the ellipsis site necessarily differ

<sup>4</sup> The relevance of this phenomenon has been pointed out to me by Gabriela Bîlbîie (p.c.).

<sup>5</sup> See Miller and Sag (1997) for French and Barbu (1999) and Monachesi (2000) for Romanian.

with respect to mood and tense: the verb in A is in the perfect indicative (*a făcut* ‘has done’), whereas the reconstructed verb is in the present subjunctive (*să nu facă* ‘SUBJUNCTIVE not done’).

One may debate whether morphological differences between A and the reconstructed verb in the ellipsis site are problematic for PF deletion. For instance, one may accept that the reconstruction can also exploit relevant data coming from the remnants. Two examples: the reconstructed form in (9) above *nu a spus* ‘not said-3<sup>rd</sup>SG’ (which is different in person from the form in A *am spus* ‘said-1<sup>st</sup>SG’) may be explained not only by the verb in A, but also by the remnant *nimeni altul* ‘nobody else’: the remnant may be seen as the subject argument of the reconstructed verb, and, due to subject-verb agreement the reconstructed verb must have the person of the remnant. Likewise, since, in the same sentence, the subject argument *nimeni altul* ‘nobody else’ is a N(egative)-phrase the reconstructed verb has to carry, thanks to Negative Concord, the negation affix *nu*. As a matter of fact, some versions of the PF Deletion hypothesis (for instance, Sag 1976) do accommodate this kind of recalcitrant data.

### 3.2.1.3 *The syntactic relationship between the elliptical phrase and its non-elliptical counter-part*

A consequence of the reconstruction hypothesis is that the non-elliptical (reconstructed) phrase and the elliptical one have to have the same syntactic properties<sup>6</sup>. It turns out, though, that in the case of N-wdECs this does not occur<sup>7</sup>. Syntactic differences between the two phrases may be ascertained with respect to embedding and relativization.

Consider, firstly, embedding. Example (26) contains in its second conjunct a N-wdEC (...*nimic altceva*, ‘nothing else’), whereas the second conjunct of (27) contains the non-elliptical counter-part of the N-wdEC ...*nu voia nimic altceva* (‘(he) wanted nothing else’):

(26) Lenin voia puterea și ~~nu voia~~ nimic altceva.

<sup>6</sup> I owe the form of the argument described below to Cullicover and Jackendoff (2005). The argument has been also used in connection with gapping in Bîlbîie (2011).

<sup>7</sup> This is especially visible in the implementation of the deletion strategy into the G&B framework: the non-elliptical clause which is the basis of the elliptical one has an S-structure and a PF-representation (for the relationship between S-structure, PF and LF, see Chomsky 1986:68). The PF representation undergoes a deletion operation which yields an elliptical clause. Since deletion is purely phonetical it cannot affect the S-representation of the non-elliptical clause. So, the elliptical clause obtained by phonetic deletion inherits the S-representation of its ‘matrix’, the non-elliptical clause. Notice that *phonetic deletion* is distinct from *syntactic deletion*, the latter one being an operation assumed to take place in the passage from D-structure to S-structure, that is to say, before the phonetic realization of the S-structure.

‘Lenin wanted the power and nothing else.’

- (27) Lenin voia puterea și *nu voia* nimic altceva.  
‘Lenin wanted the power and wanted nothing else.’

If one attempts to embed (26) as a *că* (‘that’) clausal complement of a verb, the attempt fails, because the elliptical clause is not compatible with the complementizer *că*:

- (28) Istoricii sunt de acord *că* [Lenin voia puterea] și \* *că* [~~nu voia~~ nimic altceva].  
Historians agree *that* [Lenin wanted the power] and *that* [~~not wanted~~ nothing else].

Nevertheless, the embedding of (27), which is the full counter-part of (26) succeeds, because (27) *is* compatible with this complementizer:

- (29) Istoricii sunt de acord *că* [Lenin voia puterea] și *că* [nu voia nimic altceva].  
Historians agree *that* [Lenin wanted power-the] and *that* [not wanted nothing else].  
‘Historians agree that Lenin wanted the power and that he did not want anything else.’

This difference should not exist under the hypothesis that the elliptical clause is structured and follows from its non-elliptical counter-part by phonetic deletion of some part of it.

A similar asymmetry may be ascertained in the case of the relativization of the subjects in the two conjuncts: the relativization of the unexpressed subject in the non-elliptical conjunct is allowed (30), while the relativization of the same subject in its elliptical variant N-wdEC fails (31):

- (30) Politicianul *care* voia puterea și *care* [nu voia nimic altceva].  
The politician *who* wanted power-the and *who* not wanted nobody else.  
‘The politician who wanted the power and wanted nothing else.’

- (31) Politicianul *care* voia puterea și \* *care* [~~nu voia~~ nimic altceva].  
The politician *who* wanted power-the and *who* [~~not wanted~~ nobody else].

These facts render the PF deletion analysis of the N-wdECs inapplicable, because deletion may only be used if the elliptical phrase has the same

structure and obeys the same rules as its reconstructed non-elliptical counterpart<sup>8</sup>.

### 3.2.2 The anaphora-based strategy

The syntactic analysis of the EM is not improved, if, instead PF deletion, one adopts the hypothesis that EM is an empty pronoun. This is the anaphora-based explanation. It has usually been applied to NP ellipsis<sup>9</sup>.

The null anaphora strategy relies on a parallelism assumed to hold between ordinary pronouns and EMs (Lobeck 1995:28-30). It is thus said that both EM and pronouns observe the Backwards Anaphora Constraint (BAC), they both freely violate the Complex Noun Phrase Constraint (CNC), they may occur both in coordinate and subordinate clauses and, finally, they may have a split or pragmatic antecedent.

As EM in N-wdECs is not an NP ellipsis, it is not surprising that none of these properties characterizes it. More precisely, either the tests give negative results, or they are simply irrelevant to N-wdECs. As already noticed, EM in N-wdECs may not occur in a subordinate clause and this is one difference from pronouns:

- (32) <sub>A</sub>[Lui Ion îi place] tenisul \*chiar dacă <sub>EM</sub>[e] nimic altceva.  
       <sub>A</sub>[To John likes] tennis even though <sub>EM</sub>[e] nothing else.

Because of this, the subordinate clause that contains an N-wdEC is not allowed to precede the antecedent. So, EM does not obey BAC, either. In addition, unlike pronouns, EM in an N-wdEC cannot have a split antecedent:

- (33) <sub>A1</sub>[Am vorbit] <sub>i</sub> cu directorul și <sub>A2</sub>[m-am salutat] <sub>j</sub> cu paznicul și \*<sub>EM</sub>[e]  
       <sub>i+j</sub>/<sub>EM</sub>[e] <sub>j</sub> cu nimeni altcineva.  
       <sub>A1</sub>[I have talked] <sub>i</sub> to principal-the and <sub>A2</sub>[I sent greetings] <sub>j</sub> to guardian-  
       the and <sub>EM</sub>[e] <sub>i+j</sub>/<sub>EM</sub>[e] <sub>j</sub> nobody else.

Finally, the syntactic organization of the N-wdECs does not allow the placement of its EM in a configuration where the EM behaviour could be

<sup>8</sup> There are also technical difficulties in implementing some versions of the deletion strategy (like the version proposed in Sag 1977) into the G&B framework. I will not insist on them ( but see Lobeck 1995: 31-32).

<sup>9</sup> If the (null) anaphora strategy explained EM in N-wdECs this would show that EM was what Hankamer and Sag (1976) call 'deep anaphora'. Nevertheless, one cannot assimilate N-wdECs to deep anaphora: unlike deep anaphora, EM in N-wdECs cannot be pragmatically controlled (for details concerning pragmatic control, see Hankamer and Sag 1976: 391-392).

checked with respect to CNC. An EM (the [e] below) embedded in a NP, like in (16), is therefore impossible in the case of an N-wdEC:

- (34) Mary enjoyed Clinton's **speech** but <sub>NP</sub>[a man who liked Perrot's [e] ] hated it. (Lobeck 1995:25).

So, an account of EM in N-wdECs through empty pronouns fails, too. And the more general moral is that structural assumptions about EM, even if apparently legitimate, lack empirical justification.

### 3.3 EM: how to (semantically) approach it?

No difficulty similar to those previously noticed arise in reconstructing the content of EM. The EM content may be recovered through semantic reconstruction based on  $\lambda$ -notation. The leading idea of the reconstruction is the equational strategy proposed in Dalrymple, Pereira and Shieber (1991). Consider then the sentence *Ion citește ziare și nimic altceva* ('John reads newspapers and nothing else')<sup>10</sup>. The question is how is it that we assign the meaning that John reads nothing else to the second conjunct, as long as no expression of the predicate *read* occurs in the sentence? The answer supplied by the equational strategy is that the access to the meaning of the incomplete clause comes from recovering a property of the remnant in the second conjunct. Let us term this property *P*. As Dalrymple, Pereira and Shieber notice, *P* is not arbitrary. In fact, *P* is the property which, if applied to the correlate in the source clause supplies the interpretation of the clause as a whole (Dalrymple, Pereira and Shieber 1991: 400-402). This means that the following equation holds:

- (35)  $P(\text{ziare}) = A \text{ citi} (\text{ion}, \text{ziare})$   
 $P(\text{newspapers}) = \text{Read} (\text{john}, \text{newspapers})$

The equation (35) may now be solved if the value of *P* is determined, that is, if one finds the expression whose denotation makes the equation true.

The expression in question is a  $\lambda$ -expression: it is  $\lambda x. \text{Read} (\text{john}, x)$  (in words, *the class of those x that John reads*). If *P* is replaced with its value in (35) the result is exactly the true equality (36):

- (36)  $\lambda x. \text{Read} (\text{john}, x) (\text{newspapers}) = \text{Read} (\text{john}, \text{newspapers})$

This last step allows us now to consider the expression  $\lambda x. \text{Read} (\text{john}, x)$  as also being the predicate of the remnant *newspapers* in the second conjunct

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<sup>10</sup> What follows represents just a basic and informal application of the equational approach to the case at hand.

(the remnant being *things different from newspapers*). In this way, the meaning of the second conjunct is also determined:

(37)  $\lambda x$ . Read (john, x) (things different from newspapers) = Read (john, things different from newspapers)

(37) does not represent the full meaning of EC. There is also a meaning in EC, contributed by the N-word. It will be commented in the section below.<sup>11</sup>

### 3.3.1 N-words

N-words are items usually occurring in negative contexts. The contribution of a N-word to the content of the elliptical clause is that of a quantifier. It binds a variable ranging over the set of the alternatives introduced by the non-identity item. The set of alternatives, therefore, is the restrictor of the quantifier. Its nuclear scope is the predication reconstructed in the elliptical clause. So, if the sentence is *Ion citește ziare și nimic altcineva* ('John reads newspapers and nothing else'), the quantifier *nimic* ('nothing') binds a variable with values in the domain of the things that are different from newspapers (and that exist in the universe where John lives), to the effect that the intersection between the set of these alternatives and the set of things read by John are empty.

## 4 Retrospect

There is an obvious asymmetry between the syntactic and the semantic structure of N-wdECs: syntactically, N-wdECs are less than a canonical clause: they lack the verb. From a semantic point of view, though, they *are* canonical clauses, because they express a proposition. As already shown, this asymmetry cannot be solved, through structural assumptions, such as PF Deletion or the anaphora-based account. Therefore, the asymmetry syntax-

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<sup>11</sup> One of the reviewers points out a drawback of this approach:  $\lambda$ -abstraction on C cannot be uniform, as long as it operates on both complements *and* adjuncts. In particular, the access to adjuncts presupposes some non-local mechanism. Assimilating adjuncts to complements in order to avoid this non-uniformity of treatment is debatable, so this strategy is not a real way out, says the reviewer. Unfortunately I do not have for the moment a sound solution to the problem. I was not aware of these consequences of my proposal, because my main aim was to prove that the semantic reconstruction of the fragment does not cope with the kind of the difficulties the syntactic reconstruction does. Probably, an approach expressed in the M(inimal) R(ecursion) S(emantics) framework might be better and avoid the drawback. But of course this guess is not a real answer to the problem.

semantics ought to be approached *as such*. As in the case of other elliptical constructions (sluicing - Ginzburg and Sag 2000, gapping - Bîlbîie 2011), a HPSG analysis is able to deal with asymmetry, thanks to the concept of fragment.

## 5 HPSG Representation<sup>12</sup>

The concept of fragment deals with the main aspects of an N-wdEC, the remnant phrase R and the missing sequence EM.

We saw that an N-wdEC is an incomplete phrase and, also, that it expresses more content than its constituency allows. Both these properties may be captured through the concept of *fragment*. In the HPSG hierarchy of phrases, a fragment phrase (*hd-frag-ph*) is a subtype of phrase with only one daughter (*hd-only-ph*). Its contextual dependencies are expressed by means of two features, MAX(imal)-Q(uestion)U(nder)D(iscussion) and SAL(ient)-UTT(erance) (Ginzburg and Sag 2000:304). The former permits the access to the content of the source clause, that is, in our case, the first conjunct (which is the very value of MAX-QUD). The latter identifies the correlate and thus establishes the link between C and R. One may reformulate MAX-QUD as MAX-Me(ssage)UD, which results in the possibility of having as value the semantic type needed in the case of N-wdEC, a proposition.

The constraint on *hd-frag-ph* looks as follows:

(38)

$$\left[ \begin{array}{l} \textit{hd-frag-ph} \\ \textit{HEAD: } \nu \\ \textit{CTXT: } \left[ \begin{array}{l} \textit{MAX-MeUD: proposition} \\ \textit{SAL-UTT: } \left\{ \textit{synsem} \left[ \textit{CONT|IND: } |2| \right] \right\} \end{array} \right] \end{array} \right] \rightarrow \left[ \begin{array}{l} \textit{HEAD: noun } \vee \textit{adv } \vee \textit{prep} \\ \textit{CONT|IND: } |2| \end{array} \right]$$

(38) says that there must be a nonempty value for the feature MAX-MeUD, as well as a nonempty value for the feature SAL-UTT. The referential index of the value of SAL-UTT (= C) must be identical with the one of the head-daughter. The mother-phrase and the daughter have different

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<sup>12</sup> This section owes much to the comments and suggestions of Ana-Maria Barbu and the anonymous reviewers.



values for the feature *HEAD*<sup>13</sup>. This accounts for the fact that a NP, an AdvP or a PP may have the distribution of a verb, without actually being one.

We saw that N-wdECs have incidental prosody. This is encoded in the Boolean feature *INCID*. (Abeillé 2006). Due to this feature the fragment phrase analysed here becomes a subtype of the type *hd-frag-ph*, called *incid-hd-frag-ph*:

$$(39) \textit{incid-hd-frag-ph} \rightarrow [\textit{HEAD}: v[\textit{INCID}: +]]$$

An N-wdEC expresses a proposition and this is the property of a particular phrase, the clause. A clause that is declarative is represented in HPSG by the type *decl-cl* and it is defined as follows (Ginzburg and Sag 2000:42):

$$(40) \left[ \begin{array}{c} \textit{decl-cl} \\ \textit{CONT}: \left[ \begin{array}{c} \textit{austinian} \\ \textit{SOA}: /|1| \end{array} \right] \end{array} \right] \rightarrow [\textit{CONT}: /|1|]$$

In (40) the type *austinian* refers to *propositions* and *outcomes*. By default, the SOA value of the mother phrase is identical to the CONT value of the daughter.

The feature structure of an *incid-hd-frag-ph* unifies with the feature structure of the *decl-cl*, the result being the maximal type *incid-hd-frag-cl*. Thus, an *incid-hd-frag-cl* gathers all the information of its two supertypes.

One now needs a type that identifies N-wdECs itself. This is *NwdE-cl*, a subtype of *incid-hd-frag-cl*. It specifies two things: that the value of its HEAD feature is the *synsem* of a non-identity item; and that the quantifier stored on the head-daughter must be retrieved (this latter stipulation ensures that the quantifier introduced by the N-word is properly treated):

$$(41) \left[ \begin{array}{c} \textit{NwdE-cl} \\ \textit{CONT}|\textit{QUANTS}: |1| \end{array} \right] \rightarrow \left[ \begin{array}{c} \textit{HEAD}: \textit{nonid} - \textit{pron} / \textit{adv} \\ \textit{STORE}: \{1\} \end{array} \right]$$

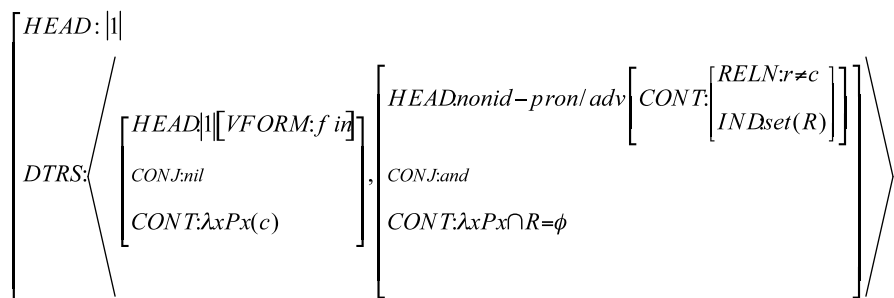
An *NwdE-cl* must also show that it has essential dependencies on the linguistic surroundings. The placement of the *NwdE-cl* in the appropriate linguistic surroundings is given in (42), a constraint on a structure with a conjunct N-wdEC as its second member. (42) establishes the link between N-wdEC and the preceding clause (in the representation below, *c* is the correlate and *r* are the alternatives to *c*; the set of these alternatives is R). The whole

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<sup>13</sup> In Ginzburg and Sag (2000):360,362, *v* is a (part of speech) subtype of *verbal*.

structure is a headed phrase (with the head-daughter the first conjunct, and the *și*-('and')N-wdEC as the non-head daughter):

(42)



## 6 The status of N-words in N-wdECs

N-words in Romanian are generally known as occurring under licensing conditions supplied by sentence negation. In this regard, they are close to NPIs (e.g. *any*) in English. For example, in *Ion \*(nu) citește nimic* ('John reads nothing') the N-word presence is illicit in the absence of the negative marker. Nevertheless, the present analysis obligatorily worked with independent occurrences of N-words.

Being based on this type of evidence, recent studies on Romanian (Iordăchioaia 2010, Bîlbîie 2011) consider that the independent occurrence of N-words in elliptical structures proves that they are negative quantifiers. Negative quantifiers (for example, *nobody*, *no one*, in English) contribute negation to the sentence in which they appear and have to be distinguished from NPIs. The latter ones cannot have independent occurrence.

A different stance, though, is expressed in Giannakidou (2002), where it is argued that, since an elliptical construction is licensed by an antecedent, the occurrence of an N-word in such a construction cannot be really independent. Consequently, it is claimed that even in such environments an N-word is still licensed by negation (the N-word thus being a universal quantifier, obligatorily outscoping negation). The licensing negation, this time, comes from the content of the antecedent and *may not have* syntactic expression. This is the case with question-answer pairs, where the N-word that is the fragment-answer is said to be licensed by the denotation of its antecedent - the interrogation<sup>14</sup>; it is also claimed that this is the case with structures involving alternatives - N-wdECs being just such a structure.

<sup>14</sup> The denotation of the interrogative sentence is defined as the set of its possible answers; for example, in the pair Speaker A: *Who came?* Speaker B: *Nobody*, the denotation of the interrogation is the set of answers  $\{John\ came, ..., Nobody\ came\}$ .

The procedure used here to determine the content of the N-wdECs gives justice to the hypothesis that N-words in N-wdECs are negative quantifiers. Indeed, the denotation of the antecedent does not contain negation. So, a licensing phenomenon, by means of the antecedent cannot be documented. Notice also that one cannot invoke the existence of a licensing negation occurring *on the reconstructed verb*, either. Licensing cannot be invoked, because, under the HPSG analysis, *there is no morpho-syntactic reconstruction of the verb, hence no host of the verbal negation marker*. In sum, then, the way the HPSG analysis is designed independently leads to the conclusion that the negative polarity of the elliptical clause originates in the N-word itself.

## 7 Conclusions

N-wdECs represent a new type of ellipsis which shows that an approach based on the syntactic licensing is not satisfactory. If one takes a look at the set of phenomena which resist this approach (gapping, sluicing, stripping, split conjuncts, sprouting and now N-wdECs) one may see that the theory of ellipsis tends to undergo a significant modification of its explanatory basis, in the direction of the non-structural approach. The HPSG theory of the ellipsis-as-a-fragment is a major illustration of this option.

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