

## Notes on Two Types of Fragments\*

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**Ahn, Hee-Don and Cho, Sungeun. 2011. Notes on Two Types of Fragments.** *Linguistic Research* 28(1), 19-35. Korean has two types of fragments: Case-marked and case-less fragments. We suggest that they must be treated differently: Case-marked fragments are derived from TP ellipsis, while caseless fragments are just CPs directly dominating non-sentential NPs. Patterns of fragments containing negative polarity items or temporal adverbs support our claim that caseless fragments do not correlate with any sentential source. One of the issues regarding the architectures of grammar is whether the pragmatic/semantic factors come into play independently from syntax. Culicover & Jackendoff (2005) suggest that the grammar consists of parallel generative components, at least independent components for phonology, syntax, and semantics, each of which creates its own type of combinatorial complexity (this architecture of grammar is often called parallelism). This paper aims to defend the syntactocentrism advocated in Minimalism led by Chomsky (1995) that the grammar permits sound structure and semantic/pragmatic structure to interact only by way of syntax proper by exploring two kinds of fragments in Korean.

**Key Words** case-marked fragments, caseless fragments, syntactocentrism, parallelism, NPI fragment, minimalism

### 1. Introduction

All linguistic theories assume three essential structures such as phonological (sound) structure, syntactic (grammatical) structure, and semantic (meaning) structure. However, the linguistic theories differ widely in how the structures interact. Culicover & Jackendoff (2005) assume that grammar consists of parallel generative components, namely, phonology, syntax and semantics. They suggest that lexical items are inserted simultaneously into the three structures and connection among

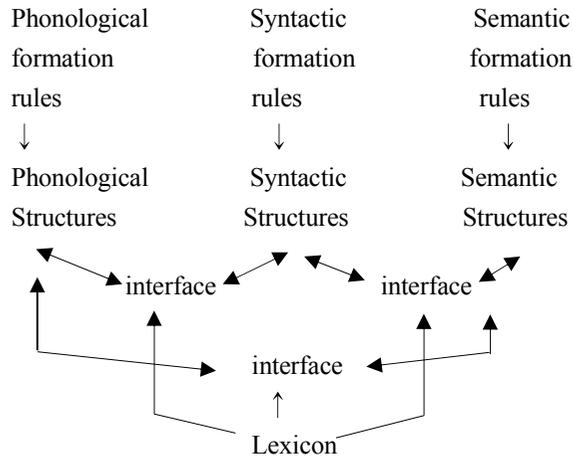
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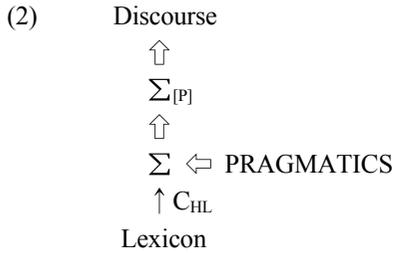
them is established, as shown in (1).

(1) The parallel architecture



As shown in (1), Culicover & Jackendoff (2005:18) suggest that language provides a mapping between sound and meaning by independently characterizing sound, syntax, and meaning and using the interface components to map between them. We call this architecture of grammar “parallelism.”

Architecture of grammar can be pictured in another way, often referred as “syntactocentrism.” Syntactocentrism led by Chomsky advances that combinatorial properties of phonology and semantics are derived from syntactic structure, and that semantic-pragmatic structure should be mediated by syntax proper. López (2009:23-24), for example, suggests that syntax is a computational module ( $C_{HL}$  = computational system of human language) that assembles words into Discourse Representation Structure as shown in (2). Pragmatics assigns features relevant for the insertion of a syntactic object into a discourse structure to constituents in a certain position.



In (2),  $\Sigma_{[P]}$  refers to the information structure of a syntactic object  $\Sigma$ , the same syntactic object augmented with the features assigned by pragmatics and which consequently is ready to be mapped into a discourse structure.

One of the issues regarding the architectures of grammar mentioned so far is closely tied to the following question. Do the pragmatic/semantic factors come into play independently from syntax? The answer to the question, we defend in this paper, is unequivocally ‘no’. This paper aims to argue for the syntactocentrism that the grammar permits sound structure and semantic/pragmatic structure to interact only by way of syntax by exploring two kinds of fragments in Korean. This paper is organized as follows: Section 2 discusses two types of fragments. We propose that case-marked fragments have full sentential sources and undergo ellipsis, whereas caseless fragments are XP fragments and interpreted directly. Section 3 deals with negative polarity fragments and postpositional fragments to support our claim. We will show that these fragments give non-trivial evidence for syntactocentrism. Concluding remarks are provided in Section 4.

## 2. Two Types of Fragments

### 2.1 Fragments in English

Fragmentary utterances such as (3a) refer to short answers smaller than grammatically complete sentences.

- (3) Q: Who did you meet today?  
 a. My teacher.  
 b. I met my teacher today.

The fragment in (3a) conveys the same propositional content that their full sentential counterpart (3b) does and has an assertoric force. How can we explain this?

To capture this form-function mismatch, three types of analyses have been made so far: direct interpretation analyses, ellipsis analyses and hybrid analyses. First, according to the direct interpretation analyses proposed by Barton (1990, 1991, 1998), Lappin (1996), Ginzburg & Sag (2000), Jackendoff (2002), Culicover & Jackendoff (2005), Barton & Progovac (2005), Stainton (1995, 1997, 1998, 2005, 2006), syntax generates non-sentential XPs. The interpretation of the non-sentential XPs involves not a literal copy of the antecedent, but rather a pragmatic discourse relation to the antecedent.

By contrast, according to the ellipsis analyses proposed by Hankamer (1971), Wasow (1972), Morgan (1973), Sag (1976), Williams (1977), Tancredi (1992), Fiengo & May (1994), Stanley (2000), Merchant (2004), Ludlow (2005), fragments have full sentential structure prior to ellipsis and the interpretation follows from the sentential structure that supports a propositional interpretation.

Our analysis in this paper, however, suggests that there are two distinct ways of deriving fragment constructions. We will label this kind of approach as “hybrid analyses” of fragments. There are some antecedents of hybrid analyses such as Morgan (1989), Fortin (2007) and Choi & Yoon (2009), which propose that some fragments are derived/interpreted directly, but the others by syntactic ellipsis.

Take the following examples for illustration of the main points of hybrid analyses.

- (4) A. Who killed John?  
       B. The janitor.
- (5) A. What's wrong with you today?  
       B. headache.

Note that these two types of fragments differ in the presence or absence of a determiner. Further, with respect to the interpretation, (4B) and (5B) show some important differences. (4B) unambiguously has the interpretation like (6).

- (6) The janitor killed John.

By contrast, there are various interpretative possibilities of (5B) as shown in (7).

- (7) a. I have a headache.  
 b. I've got a terrible headache.  
 c. My headache kills me.  
 d. My headache comes again.  
 e. You bring me a headache.

To capture the contrast we propose that (4B) has the full sentential structure, while (5B) may not have a full sentential structure. In other words, the syntactic representations in (4B) and (5B) can be (8) and (9), respectively.

(8) [<sub>CP</sub>[<sub>DP</sub> The janitor][<sub>C'</sub> C [<sub>TP</sub> John killed ~~the janitor~~]]]

(9) [<sub>NP</sub> headache]

Following Fortin (2007), in part, we suggest that the fragments with determiner as shown in (4B) are the result of movement (to Spec-C) followed by elision of TP, as depicted in (8) (see Merchant 2004 for numerous pieces of evidence to support move-delete analysis of fragments). Fragments without determiner like (5B), on the other hand, are argued to be void of full sentential structures, hence (9), and are interpreted directly from context.<sup>1</sup>

## 2.2 Fragments in Korean

Fragments in Korean can either be case-marked or caseless as shown in (10B) and (11B), respectively (cf. Morgan 1989, Ahn & Cho 2006, Choi & Yoon 2009).<sup>2</sup>

<sup>1</sup> Fortin (2007) further suggests that vocative NPs and XPs such as bare unergative VPs, adjunct adverbial phrases, interjection phrases are generable without the derivation of a full sentential structure.

<sup>2</sup> Regarding the parallel between determiners in English and case markers in Japanese, Ahn (1988) cites a piece of evidence offered by Tateishi (1988). In English, common quantificational NPs do not require the occurrence of a determiner.

- (i) a. Everybody is here  
 b. Someone is here.  
 c. Nobody is here.  
 d. \*(The/A) book is here.

- (10) A: Nwu-ka ku chayk-ul sa-ss-ni?  
 Who-Nom the book-Acc buy-Past-Q  
 ‘Who bought the book?’  
 B. Mary-ka.<sup>3</sup>  
 Mary-Nom

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A similar phenomenon is found in Japanese.

- (ii) a. Daremo(-\*ga) ko-na-kat-ta  
 anybody(-\*Nom) come-Neg-Copula-Past  
 ‘There wasn’t anybody who came.’  
 b. Dare-mo-ga ko-na-kat-ta  
 all of the people-Nom come-Neg-Copula-Past  
 ‘Nobody (in them) came.’  
 (iii) a. Dare-ka-ga ki-ta.  
 the-one-Nom come-Past  
 ‘The one came.’  
 b. Dare-ka ki-ta  
 some come-Past  
 ‘Someone came.’

Non-specific reading is required for quantifiers without case markers. The following generalization in English and Japanese is obtained.

- (iv) Indefinite nonspecific quantifiers do not cooccur with D(eterminers).

<sup>3</sup> An anonymous reviewer points out a possibility that the following caseless fragment (iB) is derived from the sentential source, namely, left dislocation.

- (i) A: Nwu-ka ku chayk-ul sa-ss-ni?  
 Who-Nom the book-Acc buy-Past-Q  
 ‘Who bought the book?’  
 B. Mary.

Ahn & Cho (2006:106-107), however, indicates that caseless fragments do not pattern with left-phrases. Left-dislocated *wh*-expressions, for example, yield D-linked reading only (see (ii)), while caseless *wh*-fragments convey either D-linked or non-D-linked reading (see (iiiB)).

- (ii) Nwukwu, Yenghi-ka ecey manna-ss-ni?  
 Who, Yenghi-Nom yesterday meet-Past-Q  
 ‘Who did Yenghi meet yesterday?’ (D-linked reading only)  
 (iii) A: Yenghi-ka ecey (etten salam-ul) manna-ss-ta.  
 Yenghi-Nom yesterday some one-Acc meet-Past-Dec  
 ‘Yenghi met (someone).’  
 B: Nwukwu?  
 ‘Who?’ (non-D-linked reading possible)

- (11) A: Ne way kule-ni?  
 you what happen-Q  
 ‘What happens to you?’  
 B: Twuthong.  
 ‘headache’

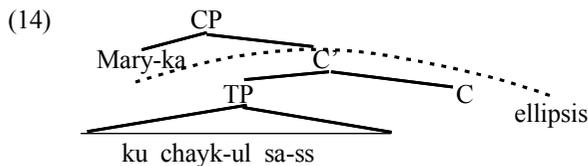
In addition to the presence or absence of a case marker, these two types of fragments show an interpretational difference. Parallel to the DP fragment in English as in (4B), (10B) has the interpretation like (12) that corresponds to the structure of its antecedent clause.

- (12) Mary bought the book.

However, on a par with the bare NP fragment in English as in (5B), there are various interpretative possibilities of (11B) as shown in (13).

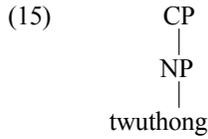
- (13) a. I have a headache.  
 b. I've got a terrible headache.  
 c. My headache kills me.  
 d. My headache comes again.  
 e. You bring me a headache.

We propose that like DP fragments in English, case-marked fragments in Korean such as (10B) are derived from TP ellipsis licensed by CP as depicted in (14).



Caseless fragments such as (11B), by contrast, are just CPs dominating non-sentential NPs.<sup>4</sup>

<sup>4</sup> Ahn & An (2011) propose that CP is always present in fragment answers in Korean and that C refers to the node responsible for marking force/clause-type.



We suggest that like NP complements in English, caseless fragments in Korean are not derived by ellipsis; that is, they are base-generated without the derivation of

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- (i) a. Mwues-ul sikhi-l-kka?  
 what-acc order-fut-Q  
 ‘What should I order?’  
 b. pap(-ul).  
 rice(-Acc)  
 ‘(Order) rice.’ Imperative
- (ii) a. Wuli mwe mek-ul-kka?  
 we what eat-fut-Q  
 ‘What shall we eat?’  
 b. pap(-ul).  
 Rice(-Acc)  
 ‘(Let’s have) rice.’ Propositionive

Further evidence for the existence of (null) C is shown in Ahn (2010). Morphologically, NP fragments can occur with *-yo*, which projects C.

- (ii) Q: Yengswu-ka mwe-lul masi-ess-e?  
 Yengswu-Nom what-Acc drink-Past-Q  
 ‘What did you drink?’  
 B: Coffee-(lul)-yo.  
 Coffee-(Acc)-Dec

Syntactically, sentence-final ending such as *-supnita*, and *-e* cannot occur inside embedded clauses, as shown in (iii). Similarly, NP fragments with null C cannot be embedded as shown in (iv). See Ahn & An (2011) for further discussion.

- (iii) a. \*Chelswu-nun Yenghi-ka achim-ul **meksupnita-ko** malha-yss-ta  
 C.-Top Y.-Nom morning-Acc was eating say-Past-Dec  
 ‘Chelswu said that Yenghi was eating breakfast.’  
 b. \*Chelswu-ka Yeki-nun onul amwuil-to **epse-ko** mwul-ess-ta  
 C.-Nom here-Top today anything-even not-happened ask-Past-Dec  
 ‘Chelswu asked if anything happened here today.’
- (iv) Q: Yenghi-ka nwukwu-lul manna-ss-ni?  
 Yenghi-Nom who-Acc meet-Past-Q  
 ‘Who did Yenghi meet?’  
 A: Chelswu.  
 A’: \*Na-to **Chelswu(-ko)** sayngkakhay.  
 I-also Chelswu-C think  
 ‘Intended: I also think that Yenghi (met Chelswu).’

a full sentential source. We also propose that adjunct adverbial phrases and postpositional phrases in Korean are not derived from ellipsis and are interpreted directly. Crucial evidence for this line of arguments for base-generated (non-case-marked) fragments in Korean can be found in section 3.

### 3. Syntactocentrism Wins Over Parallelism: Polarity and Tense Mismatching

This section discusses polarity and tense mismatching fragments. We explore these phenomena with respect to the two architectures of grammar; namely, parallelism and syntactocentrism.

#### 3.1 Polarity Mismatching

Negative polarity items (NPIs) such as *cenhye* should be in a clause specified as [NEG+]:<sup>5</sup>

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<sup>5</sup> The NPI licensing mechanism in Korean seems to be different from the one in English. As pointed out by Sells (2006:729), the examples below are ungrammatical though their English translations are not:

- (i) a. [[amwu-to]<sub>NPI-uy</sub> phyenci-lul] pat-ci anh-ass-ta  
 [[anyone]<sub>NPI-Gen</sub> letter-Acc] receive-COMP NEG-Past-Dec  
 'I did not receive anyone's letters./I received no one's letters.'  
 b. [[amwu-uy phyenci-to]<sub>NPI</sub> pat-ci anh-ass-ta  
 [[anyone-Gen letter-Foc]<sub>NPI</sub> receive-COMP NEG-Past-Dec  
 'I did not receive anyone's letters./I received no one's letters.'

Sells suggests that Korean NPIs are not licensed by (being in) the scope of negation. Rather, they are licensed by being in a clause specified as [NEG+] (see also Kim 1999 for an extensive discussion). NPIs should be in a clause containing one of the negative elements in (ii) (Sells 2001:4).

- (ii) Negative Items  
 a. Long-Form Negation, e.g., *cap-ci anh-ass-ta* 'did not grasp'  
 b. Short-Form Negation, e.g., *an cap-aa-ta* 'did not grasp'  
 c. Lexically negative verbs: *eps-ta* 'not exist', *molu-ta* 'not know'

- (16) \*Kay ton-ul cenhye pel-ess-e.  
 He money-Acc at all earn-Past-Dec  
 ‘Lit. He earned money at all.’

Patterns of fragments containing NPIs are interesting. Consider (17A).

- (17) Q: Mary-ka ton-ul pel-ess-ni?  
 Mary-Nom money-Acc earn-Past-Q  
 ‘Did Mary earn money?’  
 A: (Ani,) cenhye.  
 No, at all  
 ‘No, (she didn’t earn money) at all.’

Note that antecedent sentential source of the fragment *cenhye* isn’t a clause specified as [NEG+]. Nonetheless, the negative polarity item *cenhye* is licensed as a fragment answer in (17A). We think it is the role of pragmatics that may adjust the positive environment to the negative one and licenses the NPI fragment *cenhye*.<sup>6</sup> Thus, apparent polarity mismatching doesn’t make the fragment deviant thanks to pragmatic strategies available for caseless (base-generated) fragments.

Note, however, that when case-marked and caseless fragments occur together as a fragment answer, polarity mismatching is not allowed, and results in ungrammaticality, as shown in (18B).<sup>7</sup>

<sup>6</sup> It is not at all clear at this stage what would be the exact pragmatic mechanisms that licence the NPI fragment *cenhye*. We leave precise formulation for future research.

<sup>7</sup> Note that multiple case-marked fragments are not themselves impossible in Korean:

- (i) Q: Mary-ka ton-ul pel-ess-ni?  
 Mary-Nom money-Acc earn-Past-Q  
 ‘Did Mary earn money?’  
 A. (Ani,) Sue-ka ton-ul.  
 No Sue-Nom money-Acc  
 ‘No, Sue (earned) money.’

Note further that multiple “caseless” fragments are independently excluded, as indicated by an anonymous reviewer (see Choi & Yoon (2009) for related discussion).

- (ii) Q: Mary-ka ton-ul pel-ess-ni?  
 Mary-Nom money-Acc earn-Past-Q  
 ‘Did Mary earn money?’

- (18) Q: Mary-ka      ton-ul      pel-ess-ni?  
           Mary-Nom    money-Acc    earn-Past-Q  
           ‘Did Mary earn money?’  
 A. (Ani,) \*cenhye ton-ul.  
           No,      at all      money-Acc  
           ‘No, (she didn’t earn) money at all.’

Multiple fragments construction (18A) contains a case-marked fragment DP *ton-ul* ‘money-Acc’ and a caseless fragment *cenhye* ‘at all’. The case-marked fragment *ton-ul* ‘money-Acc’ should be derived from its sentential source like (19).

- (19) \*Mary-ka cenhye ton-ul pel-ess-ta.  
           ‘Lit. Mary earned money at all.’

In this environment, the NPI *cenhye* ‘at all’ isn’t licensed since the underlying structure prior to ellipsis contains no affected elements such as negation that can license the NPI *cenhye* ‘at all’.

Suppose, however, that syntax and pragmatics interact bidirectionally or independently, as put forward by Culicover & Jackendoff (2005), for example. The case-marked fragment *ton-ul* is licensed in syntax and discourse-pragmatics licenses the NPI *cenhye*, respectively, which makes (18A) well-formed, contrary to fact. Thus, it is not possible to establish two parallel structures for (18A); namely, one full-fledged complex sentential structure for the case-marked object, and one simplex NP structure for the caseless NPI.

The structure of (18A) should start out with one and only one coherent sentential structure that meets syntactic/semantic licensing of Case and NPI. Accordingly, the ill-formedness of (18A) supports the thesis that syntax and semantics/pragmatics modules are not parallel and independently organized (and interact with each other bidirectionally) but syntax and semantics/pragmatics modules are unidirectional; that

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- A. (Ani,)      \*cenhye      ton.  
           No,      at all      money  
           ‘No, (she didn’t earn) money at all.’

We speculate that caseless fragment can occur one per clause due to inherent licensing mechanism in pragmatics/discourse. The formulation of exact mechanism is beyond the scope of this paper.

is, syntax flows to semantics/pragmatics. In other words, syntactic computation is basis for interpretation modules, hence syntactocentrism.

Polarity mismatching is also observed with a postpositional fragment. First consider (20).<sup>8</sup>

- (20) Q: Ne        ku yenghwa        acik anpoa-ss-ni?  
           You     the movie            yet not see-Past-Q  
           ‘Have you seen the movie yet?’  
 A: (Ung.) cinan    cwu-ey.  
           yes        last        week-at  
           ‘Yes, (I saw it) last week.’

Suppose (20A) is derived from its sentential source. Then, (20A) should have the structure like (21) in connection to the antecedent clause.

- (21) Na ku yenghwa cinan cwu-ey an    poa-ss-ta.  
       I    the movie    last    week-at not    see-Past-Dec  
       ‘I didn’t see the movie last week.’

This is contrary to fact since (20A) has the interpretation ‘I saw the movie last week’. The postpositional fragment *cinan cwu-ey* ‘last week’ is caseless fragment that can be licensed in pragmatics. Due to pragmatic strategy available for adjusting negative context to positive context, the PP fragment *cinan cwu-ey* ‘last week’ can be interpreted as ‘I saw it last week’.

Now let us consider a fragmental utterance involving both case-marked and caseless fragments together.

- (22) Q: Ne        ku yenghwa    acik an    poa-ss-ni?  
           You     the movie        yet not    see-Past-Q  
           ‘Have you seen the movie yet?’  
 A: (Ung.) \*cinan cwu-ey    ku yenghwa-lul.

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<sup>8</sup> This sentence is not acceptable for some speakers (including an anonymous reviewer). We believe, however, that (20) is far better than (22), the contrasting judgment for our purposes. Thus, our discussion only holds for those who do not rule out (20) completely.

yes last week-at the movie-Acc  
 ‘Intended: Yes, (I saw) the movie last week.’

Again, presence of case-marked fragments in (22A) needs the sentential source like (23).

(23) [Na cinan cwu-ey ku yenghwa-lul acik an poa-ss-ta]  
 ‘I haven’t seen the movie last week yet.’

(23), however, cannot be construed as the intended reading in (22A). Here too pragmatics cannot be mixed with syntax, and the underlying structure of (22A) should be ill-formed sentential source that correlates with the antecedent clause, hence confirming syntactocentrism.

### 3.2 Tense Mismatching

A temporal adverb should be harmonized with tense in its clause. Nonetheless, apparent tense mismatching is observed with a case-less fragment.<sup>9</sup>

(24) Q: Ne ecey ku yenghwa-lul poa-ss-ni?  
 You yesterday the movie-Acc see-Past-Q  
 ‘Did you see the movie yesterday.’  
 A: ani, nayil.  
 No, tomorrow  
 ‘Intended: No, (I will see it) tomorrow.’

Although the question clause has the past tense verb *po-ass-ni*, ‘see-Past-Q’, the fragment answer can have a future time adverb *nayil* ‘tomorrow’, as shown in (24A). Again, notice that the fragment isn’t case-marked. Thus, the fragment doesn’t have to correlate with sentential source and can be interpreted directly. Thanks to pragmatic adjustment from past tense to future tense, the fragment *nayil* ‘tomorrow’ can have the interpretation like ‘I saw it tomorrow’.

<sup>9</sup> For some speakers, this sentence is not acceptable. Thus, our discussion only holds for those who do not rule out (20) completely, and have a sharp contrast between (24) and (25).

Now let us consider a fragment utterance involving both case-marked and caseless fragments together.

- (25) Q: Ne ecey ku yenghwa-lul poa-ss-ni?  
 You yesterday the movie-Acc see-Past-Q  
 ‘Did you see the movie yesterday.’  
 A: \*ani, nayil ku yenghwa-lul.  
 No, tomorrow the movie-Acc  
 ‘Intended: No, I will see it tomorrow.’

Again, presence of case-marked fragments in (24A) requires the following underlying sentential structure involving past tense event of the antecedent clause.

- (26) [Na nay-il ku yenghwa-lul poa-ss-ta]  
 ‘I saw the movie tomorrow.’

(26), however, can be construed as the intended reading (25A). Here too pragmatic interpretation cannot be independently processed from syntax, and hence (25A) turns out to be degraded, as expected under syntactocentrism.

#### 4. Concluding Remarks

We have proposed that two types of fragments in Korean have different structures and their interpretative mechanisms are systematically different. Case-marked fragments have full sentential structures prior to ellipsis and the interpretation follows from the sentential structures that are the sources of propositional interpretations. Caseless fragments, on the other hand, are non-sentential XPs whose interpretations come directly from pragmatics-discourse. We have shown that the various phenomena related to polarity and tense mismatches attested in NPI and temporal adverb fragments support the hypothesis that syntactic structure is the sole outcome of computation in the grammar which further interfaces with semantic/pragmatics (and phonological) components for interpretation. Hence, syntactocentrism (Chomsky 1995) but not parallelism (Jackendoff 2002) seems to be

more appropriate architecture of grammar.

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Depending on the type of fragment, either models or templates are also used: **Caution:** Content fragment models are now recommended for creating all your fragments. **Resource types** A list of `slings:resourceTypes` can be provided to define components that are used for rendering content fragments and where the background processing should be applied to. **Reference Properties** A list of properties can be configured to specify where the reference to the fragment is stored for the respective component. **Note:** There is no direct mapping between property and component type. AEM simply takes the first property that can be found on a paragraph. **If a content fragment is edited by two users concurrently, they should not overwrite each other's changes.** **Processes.** The processes involved are **Usually,** fragments are pieces of sentences that have become disconnected from the main clause. One of the easiest ways to correct them is to remove the period between the fragment and the main clause. Other kinds of punctuation may be needed for the newly combined sentence. Below are some examples with the fragments shown in red. **Fragment:** Coach Dietz exemplified this behavior by walking off the field in the middle of a game. Leaving her team at a time when we needed her. **Possible Revision:** Coach Dietz exemplified this behavior by walking off the field in the middle of a game, leaving her team at a time when we needed her.