CLITICIZING LFG

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Abstract

Why aren't *you* working on clitics?

1 Introduction

This paper represents the introduction to the workshop on LFG approaches to clitics held at LFG05. The workshop comprised: this introduction, three twenty-minute papers, and a discussion period. The first paper was by Michael Wescoat on "English nonsyllabic auxiliary contractions: An analysis in LFG with lexical sharing". Further details can be found in Wescoat 2002 and in other works of his. The second paper was by Ana Luis and Ryo Otoguro on "Morphological and syntactic well-formedness: The case of European Portuguese proclitics". Futher details can be found in Luis 2004 and Luis and Otoguro 2004 and 2005. The third paper was by Rob O'Connor on "Clitics in LFG: Prosodic Structure and Phrasal Affixation". Further details can be found in O'Connor 2002 and 2004.

Clitics have long been a fascinating topic for linguists because they involve intricate interactions between different grammar components, including syntax, prosody, and information structure. The two main goals of this workshop were: to present some issues and analyses of clitics in LFG so that they are accessible to the general LFG audience and to spark interest in clitics leading to further work on clitic phenomena from an LFG perspective.

LFG is an ideal theory in which to investigate clitic phenomena because its projection architecture provides a clear division between grammar components and a concrete notation with which to frame analyses within each component. However, there has been relatively little work on clitics in LFG compared to other theories. A quick look at some recent book-length publications shows a surge in the formal linguistic analysis of clitics, relatively little of which is in LFG. These works include Anderson 2005 (A-morphous morphology with Optimality Theory), Monachesi 2005 and 1999 (Head-driven Phrase Structure Grammar), Bošković 2001 (Minimalism), Gerlach and Grijzenhout (eds.) 2001, Franks and King 2000 (typology and Minimalism), and Halpern 1995 (Prosodic Inversion).

This is not to say that there is no LFG work on clitics or that the work done in other frameworks is incompatible with LFG. Instead, as the three papers presented at this workshop showed, LFG is an excellent theory in which to work on clitics: the reason for this workshop was to encourage more work in this area. In addition to the work presented at the workshop by Ana Luis, Ryo Otoguro, Rob O'Connor, and Michael Wescoat, there is LFG work on clitics that was not presented there. This includes detailed analyses of Tagalog second-position clitics by Paul Kroeger (Kroeger 1993) and of Hindi discourse clitics by Devyani Sharma (Sharma 2003). All of these works draw upon the insights of previous analyses of clitics. In some cases, LFG provides a way to account for a broader range of data than other frameworks. In other cases, the formal analysis of clitic constructions results in a clarification of how the different projections work together or in proposals for extensions of the theory.

Why should LFG focus more on the analysis of clitics? LFG's basic design involves a modularity of the grammar such that different types of information (syntactic, semantic, prosodic, etc.) are represented differently but can make reference to each other in well-defined ways. This interaction is best understood in the ϕ-mapping between c-structure and f-structure, although significant work has been done in the connection between argument-structure and f-structure and between information and discourse-structure and c- and f-structure. Despite this work, there are still gaps in our understanding of how the different components of the grammar interact with each other and the exact nature of each component and its mappings to other components.

This is where the study of clitics can provide vital clues to the structure of the formal system. The

analysis of clitics crucially involves more than one type of linguistic information. Among the most important are prosody, syntax, morphology, and information structure. Not all clitics make crucial reference to each component, but many languages contain clitics which require many or all of these and whose analysis will be complete only when all the components can be connected properly. It is these clitics that are of particular interest to most linguists working on clitics, including those who presented at this workshop. They show how LFG's projection architecture provides the necessary tools to analyze clitic constructions, and where the necessary formal devices are not yet in place, they provide proposals for this. In particular, LFG is a theory that allows access to each of these types of information, access from each type to the others, and a formal way to analyze these interactions. All of these are crucial to the analysis of clitics which is why work on clitics within LFG is vital both to the linguistic understanding of clitics and to LFG theory.

2   What is a Clitic?

Clitics are notoriously difficult to define, with linguists often resorting to the "I know one when I see one" approach to clitics. Some of the clearest discussion of the issue of defining clitics can be found in Klavans 1982 and Zwicky 1977; Anderson's 2005 work is also useful in this regard. In this section, I outline a few of the defining characteristics of clitics that are most relevant for the types of clitics that are likely to be of interest to linguists working in LFG.

The first part of the definition of a clitic is prosodic. Clitics are prosodically deficient elements in that they cannot appear on their own. For example, a clitic pronoun cannot be used as an answer to a question. Instead, a full pronoun must be used. This prosodic dependency means that clitics are often restricted to having an accented element to their left (for enclitics) or to their right (for proclitics).[1] This dependency is often represented by having the clitic be an element that prosodically subcategorizes for a prosodic word (Inkelas 1989). This is shown in (1).

(1) a. Enclitic: $[[\quad]_\omega \ \_\_\ ]_\omega$

   b. Proclitic: $[\ \_\_\ [\quad]_\omega \ ]_\omega$

This prosodic requirement means that the clitic will form a prosodic unit with its host. This prosodic unit may or may not correspond to a syntactic unit. This frequent mismatch is particularly conducive to analysis in a theory like LFG which does not too tightly bind prosodic structure to syntactic structure.

A second characteristic of clitics is that they are (morpho)syntactically independent. This is what differentiates them from affixes which are morphologically part of the word to which they attach. An interesting theoretical proposal is that clitics are in fact a special subtype of affix: they are affixes that attach to syntactic or prosodic phrases which are larger than the prosodic word.

These two characteristics can give rise to very unusual behaviour from the viewpoint of the syntax. Zwicky 1977 captures this diffence in his description of simple and special clitics. Simple clitics have a syntactic distribution similar to their non-clitic counterparts. This is seen in many languages which have proclitic prepositions. The prepositions themselves are clitics and form a prosodic word with the first prosodic word of the NP that is the object of the preposition. Syntactically, these clitics are usually considered uninteresting because their distribution is predictable: their prosodic dependency does not result in an unusual placement in the string. This can be seen with most Russian prepositions which are proclitics, as in (2).

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[1]Some clitics are less discriminating and can have a prosodic host either to their left or right.

(2) a. Ona *na* zavode.
    she in factory
    'She is in the factory.'

   b. Prosody: [na [__]$_\omega$]$_\omega$ $\Longrightarrow$ [na zavode]$_\omega$

   c. C-structure:
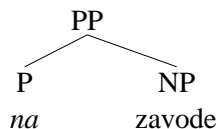
In contrast to simple clitics whose syntactic distribution is similar to that of their non-clitic counterparts, special clitics have a syntactic distribution which is different from their non-clitic counterparts. Second position and verb adjacent clitics are almost always special clitics. Their position in the string is more restricted than that of their non-clitic counterparts and sometimes their non-clitic counterparts cannot appear in the position that the clitics do. The next section will discuss an example of Serbian/Croatian/Bosnian (SCB) second position clitics in detail. Languages often have both special and simple clitics. Here I focus on special clitics because they are more interesting from a syntactic perspective and hence to the majority of the LFG community.

One interesting phenomenon surrounding special clitics is that these clitics often form clusters. That is the privileged clitic position can contain a number of clitics, usually in a fixed order. These clitics can be of diverse types. For example, they can contain auxiliaries, pronominal arguments, and certain sentential adverbs, as in the examples in (3) which contain argument and auxiliary clitics together in the cluster. (Clitics are italicized in the examples.)

(3) a. Kupila *mi*   *ga*   *je*   jučer   Vesna.
    bought me-DAT it-ACC AUX-3SG yesterday Vesna
    'Vesna bought it for me yesterday.'

   b. Ja *sam*   *ga*   *se*   bojao.
    I AUX-1SG him/it-GEN refl-ACC feared
    'I was afraid of him/it.'

There are raging arguments in the literature as to how these clusters are formed and whether the ordering is synchronically morphologically templatic or a reflection of deeper syntactic factors. As we will see below, SCB has very complex clitic clusters in second-position.

2.1 Serbian/Croatian/Bosnian Second Position Clitics

SCB pronominal argument and auxiliary clitics occur in second position within their clause (Halpern 1995, Franks and King 2000 and references therein, and O'Connor 2002). Examples with both auxiliary and pronominal clitics were shown in (3). In (3a) the clitics follow the participial main verb *kupila*. The clitics comprise the indirect object *mi*, the direct object *ga*, and the auxiliary verb *je*. A sentential adverb and the subject follow the clitics. In (3b) the clitics follow the subject *ja* which is a full, non-clitic pronoun, and precede the participial verb *bojao*. The clitics comprise the auxiliary *sam*, the direct object *ga*, and an inherent reflexive *se*.

The clitics are in a fixed order. This order can be shown templatically as in (4). (All the auxiliaries except the third singular *je* appear initially; *je* appears finally; there are involved discussions as to why this occurs, e.g., Mišeska-Tomić 1996.)

(4) Q AUX DAT ACC GEN REFL AUX-JE

If they occur in any other order, the resulting string is ungrammatical, as in (5). This ungrammatical-ity does not appear to be prosodic in orgin in that each of the clitics is an enclitic requiring a prosodic host to its left; this host is provided by the sentence initial constituent.

(5) a. *Kupila *mi je ga* jučer Vesna.

   b. *Kupila *ga mi je* jučer Vesna.

   c. ...

   SCB is largely discourse configurational: different constituents may appear in first position de-pending on the information structure. In each case, it is this initial constituent which hosts the clitic cluster. As seen in (6), the host can be a subject NP (6a), the main verb (6b), or an object NP (6c); other constituents such as PPs and adverbs can also act as hosts for the clitics.

(6) a. Čovek   *je*   voleo Mariju.
         man-NOM AUX-3SG loved Maria-ACC
         'The man loved Maria.'

   b. Voleo *je* Mariju čovek.

   c. Mariju *je* čovek voleo.

   In all the above examples, the clitics are in second position. In SCB, it is not only possible for the clitics to appear in second position, it is necessary that they do so. The clitics cannot appear in initial position, nor can they appear in third or further position in their clause.

   First consider the situation in which the clitics are in initial position. Sentence word orders in which the clitic(s) are initial are ungrammatical, as in (7). The initial clitic(s) are ruled out for prosodic reasons. Since SCB clitics are enclitic, they require a prosodic host to their left. If they are in initial position, there will be no host to their left and hence the string is prosodically ill-formed. It may also be the case that there is a syntactic requirement that something appear before them, although this is difficult to detect given the prosodic requirements.

(7) a. *Je   čovek   voleo Mariju.
         AUX-3SG man-NOM loved Maria-ACC
         'The man loved Maria.'

   b. *Je voleo čovek Mariju.

   The next situation to consider is when the clitics are in third position or even further from the beginning of the clause. Having clitics further to the right in the clause than second position is un-grammatical, as seen in (8).

(8) a. *Čovek   voleo *je*   Mariju.
         man-NOM loved AUX-3SG Maria-ACC
         'The man loved Maria.'

   b. *Čovek voleo Mariju *je*.

There are two situations in which clitics can occur further to the right. The first is the relatively uninteresting case in which the clitics are second in their clause, but the clause is subordinate, as in (9) where the clitic *ga* encliticizes to the complementizer *da*.

(9) Marko ne zna   da *ga*   voli   Vesna.
     Marko neg know-3SG C   him-ACC loves Vesna
     'Marko doesn't know that Vesna loves him.'

In this situation, the clitics always follow the complementizer which is the first element in their clause. Thus, within the relevant CP, the clitics are still in second position. The only potential difficulty is to make sure that the clitics are associated with the correct clausal domain. The second situation in which clitics occur further to the right is when there is additional material, such as left-dislocated constituents, which form a different prosodic phrase from the main clause. These are discussed more in section 3.

In the above discussion of SCB second position clitics, we have avoided an important question: What does second position mean? There are two possibilities: after the first syntactic constituent or after the first prosodic word. In most of the above examples, the first syntactic constituent (generally assumed to be the first maximal projection) also coincided with the first prosodic word because the constituents were prosodically simple. However, more complex syntactic constituents, such as complex NPs and PPs can shed light on this question since they can comprise multiple prosodic words. It turns out that both possibilities appear to occur. In (10), the first syntactic constituent is *taj čovek* which can comprise two prosodic words. The clitics can appear after the entire NP, as in (10a) or after the first prosodic word, as in (10b). Thus, upon initial inspection, second position clitic placement in SCB appears to be driven by either prosodic or syntactic considerations.

(10) a. [$_{NP}$ Taj čovek]   *je*   svirao klavir.
         that man   AUX-3SG played piano
     'That man played the piano.'

     b. [$_{\omega}$ Taj] *je* čovek svirao klavir.

3   Syntax, Prosody, or Both?

In analyses of clitic placement, there are three main schools of thought: the placement is driven entirely by the prosody and other phonological factors; the placement is driven entirely by the syntax; the placement is driven by a combination of prosodic and syntactic factors. All three proposals have been made in the analysis of SCB second position clitics. The basic idea behind these is discussed here to provide an example of the types of issues that arise in the placement of special clitics. To make the discussion more concrete, I will focus on the example in (10) above in which the clitic appears either after a complex nominal subject or between a demonstrative and the head noun it is associated with.

3.1   Pure Prosodic Analyses

Purely prosodic accounts of SCB clitic placement are relatively rare. The most complete purely prosodic account of clitic placement in SCB is that of Radanović-Kocić (1988, 1996). Under these accounts, the clitic cluster is associated with a given clause, or verb heading a clause, via the syntax but the placement within the clause is derived entirely on prosodic grounds. In particular, the clitics will appear after the first phonological phrase in the prosodic domain (usually the intonational

phrase) that they belong to. The difference in placement in examples like (10) reflects a difference in the way in which the phonological phrases are composed in the clause.

(11) syntax: *je* [$_{NP}$ taj čovek] svirao klavir
     prosody 1: [$_\omega$ taj] *je* čovek svirao klavir
     prosody 2: [$_\omega$ taj čovek] *je* svirao klavir

Arguments in favor of the prosodic analysis include the straightforward explanation for why complex nominal and prepositional phrases can be split by clitic clusters and for why clitic third can be found in sentences which have heavy fronted material or "comma" intonation, as in (12). With comma intonation, the material before the pause (indicated by the # in (12a)) does not count when determining second position for the clitics.

(12)   a.   [Ove godine] # [taj pesnik] *mi*   *je*   napisao knijigu.
               this   year   that poet   me-DAT AUX-3SG wrote   book
               'That poet wrote me a book this year.'

       b.   [ove godine] [[[taj pesnik]$_\omega$ *mi ga*]$_\omega$ napisao knijigu]

Under the prosodic accounts, the first constituent *ove godine* forms a distinct prosodic phrase from that of the prosodic phrase that comprises the clitic domain. Hence, there is no difficulty with accounting for clitic-third placement because the clitics still form a prosodic word with the first prosodic word in their domain.
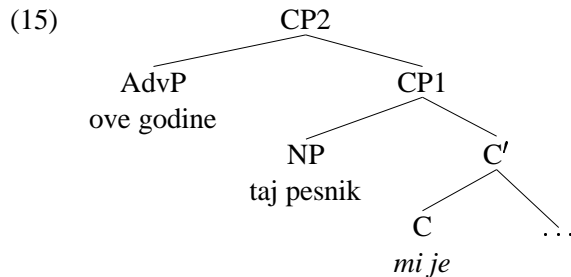
3.2   Pure Syntax Analyses

There are also purely syntactic approaches to clitic placement. Under these analyses, the syntax places the clitic cluster in the appropriate location and the prosody just determines whether the clitics are enclitic or proclitic. For the example in (10), this means that the demonstrative *taj* appears independently in initial position in the syntax, as shown in (13).

(13) syntax/prosody: [$_{NP/\omega}$ taj] *je* [$_{NP}$ ∅ čovek] svirao klavir

It turns out that in the majority of cases, the pre-clitic material can move independently of the post-clitic material in SCB since separable constituents are more common in SBC than in, for example, English. (14a) shows an example where a possessive adjective *Anina* is discontinuous from its head noun *sestra*. The demonstratives shown in the examples in this paper can similarly be split from thier head nouns, as in (14b). As there are no clitics, these examples show independent evidence of split consituents in SCB.

(14)   a.   Anina dolazi   sestra.
            Ana's come-3SG sister
            'Ana's sister is coming.'

       b.   Tog Milena voli   čovjeka.
            that Milena loves man
            'Milena loves that man.'

However, the pure syntax approaches run into difficulties with some of the clitic third examples, where a fronted constituent appears to be in the same clause, but in a different prosodic phrase. This can occur when the clause contains left-extraposed material, such as certain dislocated topics. This material often forms its own prosodic phrase, separate from that of the core of the clause. When it does, then the clitics follow the next constituent, as in (12). Radanović-Kocić (1988, 1996) discusses examples of this type in detail. This data is often used as evidence against syntactic accounts of second position clitic placement in SCB because the prosodic phrasing of the dislocated element is crucial for determining second position. However, the proponents of pure syntax approaches argue that material such as *ove godine* in (12) is syntactically, as well as prosodically, outside the relevant clausal domain, suggesting syntactic structures such as (15) where CP1 represents the relevant domain for clitic placement.

(15)

```
                    CP2
           _____/    _____
        AdvP                    CP1
      ove godine          ____/    \____
                        NP              C′
                     taj pesnik       /    \
                                    C       ...
                                   mi je
```

In addition, some syntax-only accounts have trouble with verb-initial clauses in which the verb hosts the clitics, as in (16).

(16) Kupila *mi   ga   je*   jučer   Vesna.
       bought me-DAT it-ACC AUX-3SG yesterday Vesna
       'Vesna bought it for me yesterday.'

The issue here is how to motivate the movement of the verb before the clitics. One approach is to claim that when the structure would be prosodically ill-formed because the clitics would be in initial position, then the verb can move to a position before the clitics. This involves an interesting interaction between the prosody and the syntax; another manifestation of this interaction is discussed below for the hybrid approaches. However, many proponents of the pure syntax approach believe that this foreknowledge of a prosodic failure by the syntax cannot govern syntactic movement or the realization of an alternative c-structure. If the prosodic needs of the clitics cannot motivate the verb's preceding the clitics, which are generally assumed to be in C^0 or somewhere else high in the clause structure, then it is difficult to find other motivation for this as participles are normally quite low in the SCB phrase structure. Although "movement" of the verb is not an issue for LFG accounts, the same basic issue would arise with an LFG syntax-only account of SCB clitics: why is the verb sometimes generated high in the clause and sometimes lower?

3.3   Hybrid Analyses

Under hybrid approaches, some orders are derived syntactically and others prosodically. Halpern's (1995) Prosodic Inversion analysis is a canonical example of a hybrid approach. The clitics occur in a particular syntactic environment, such as C^0.[2] If there is non-clitic material in SpecCP or C^0 which can act as a host to the enclitics, then the structure is well-formed and no special prosodic processes are invoked. For the example in (10a), the syntactic tree would be as in (17). Since there is a full NP in SpecCP, the prosodic requirements of the enclitic are satisfied.

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[2]Halpern (1995) in fact argues that they are slightly lower in the tree. Here I show the C^0 analysis for simplicity.

(17)

```
            CP
          /    \
        NP      C′
      taj čovek /  \
              C     . . .
              je
```
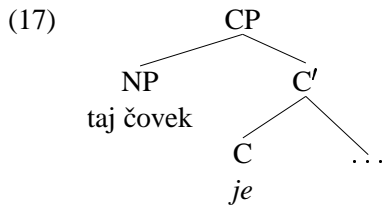
Note that the appearance of the NP *taj čovek* in SpecCP is independent of the prosodic requirements of the clitics. Instead, it appears in SpecCP for information structure reasons, such as topic interpretation. A similar situation arises in subordinate clauses where the complementizer in C^0 hosts the clitics, as in (18) repeated from (9).

(18) Marko ne   zna   da *ga*   voli Vesna.
     Marko neg know-3SG C him-ACC loves Vesna
     'Marko doesn't know that Vesna loves him.'

However, if there is no complementizer in C^0 and no fronted phrase in SpecCP, then the syntactic structure of the clause leaves the clitics in initial position, as in (19).

(19)

```
          CP
          |
          C′
        /    \
      C        IP
      je      /  \
           NP      . . .
        taj čovek
```
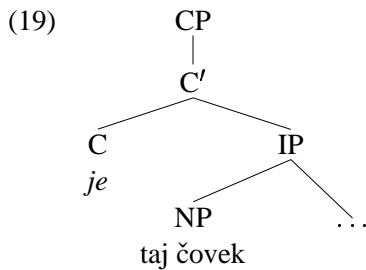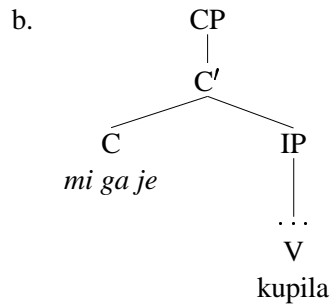
Under pure syntax accounts, such a configuration would result in an ungrammatical structure. Under Halpern's Prosodic Inversion account, there is a prosodic process whereby the enclitics appear after the first prosodic word to their right; in (19) this is the demonstrative *taj*. This results in the surface word order seen in (10b). The prosodic aspect of this process is shown in (20).

(20) *je* [taj]$_\omega$ čovek . . .

Prosodic Inversion is sometimes referred to as a last resort strategy because it only applies when there is no other way for the prosodic requirement of the clitics to be satisfied. This situation also arises in what would otherwise be verb initial constructions; these occur relatively frequently in SCB due to pro-drop of subjects, although the discourse configurationality of the language does result in initial objects and other constituents. In general, finite verbs in SCB are assumed to be in I^0 or a related exploded Infl position while participles are in V^0 (see Bošković 2001 for detailed discussion as to verbal and clitic c-structure position in SCB; his argument is that the phrase structure of SCB clauses is much more complicated, especially as regards the position of the clitics). If the clitics are high in the c-structure in C^0 while the verb is lower in the clause in I^0 or V^0, then clauses composed of just a verb and its clitic arguments (and possibly clitic auxiliary) will look roughly like (21b) for the sentence in (21a).

(21) a. Kupila *mi*   *ga*   *je*.
        bought me-DAT it-ACC AUX-3SG
        'She bought it for me.'

b.

```
            CP
            |
            C′
          /     \
        C         IP
      mi ga je     |
                   ⋮
                   V
                 kupila
```

Under the Prosodic Inversion analysis, the syntactic structure stays as in (21b) and the clitics are provided with a host in the prosody by occurring after the first prosodic word to their right, in this case the verb participle *kupila*, as in (22).

(22) *mi ga je* [kupila]$_\omega$ ...

Under analyses in which prosodically ill-formed structures, such as enclitic initial structures like that in (22b), can be repaired by changes to the syntactic structure, the canonical structure in (22b) is replaced by a c-structure as in (23) in which the head of the clause appears in C^0 and provides a host for the clitics, similar to the situation in subordinate clauses with an overt complementizer, as in (18).

(23)

```
            CP
            |
            C′
            |
            C
          /     \
        V         C
      kupila    mi ga je
```
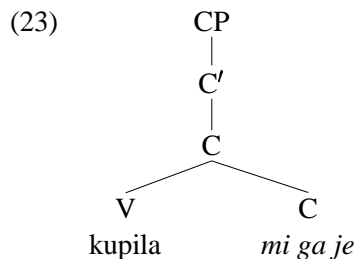
Hybrid accounts thus depend on a complex interaction of syntactic and prosodic factors to determine clitic placement. Most hybrid accounts assume that there is a canonical syntactic placement for the clitics in the c-structure and that when their prosodic requirements are met in that position, then there is no change to that structure. That is, the surface word order is identical to that of the leaves of the tree. However, if the clitics' prosodic requirements are not met, in the case of SCB not having a host to their left, then either the prosody must alter the order of the string, as in the Prosodic Inversion accounts, or some other syntactic structure must be found that does provide an adequate prosodic host.

Thus, we have seen that clitic placement in SCB has been analyzed as being purely prosodic, purely syntactic, or a combination of syntactic and prosodic factors. In each approach, it is necessary that the clitics have a proper prosodic host within the domain of their clause.[3]

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[3]Clitic climbing provides an interesting challenge to the idea of clitic domain. In clitic climbing, the clitics that are associated with a subordinate clause verb appear on the matrix verb (see Monachesi 2005 for extensive Romance data). This often occurs cross-linguistically in causative and light verb constructions, and generally constructions involving clause union (Aissen and Perlmutter 1983). Clitic climbing is often obligatory, although some languages have optional clitic climbing in certain constructions. A SCB example of clitic climbing is shown in (i).

(i) Marija *ju*   *je*   pustila da pliva.
     Maria it/her-ACC AUX-3SG let   C swims
     'Marija let it/her swim.'

4 LFG's Projection Architecture

I hope that the brief discussion of SCB clausal clitics in the preceding sections provides an answer for the question why clitic phenomena are of interest to LFG. The analysis of clitics crucially involves more than one type of linguistic information, a strength of LFG theory. As seen in the discussion, the types of information needed for the analysis of clitics most obviously include syntax, especially c-structure, and prosody (see Butt and King 1998 on a prosodic projection for LFG).

Although it was not discussed here in detail, information structure is also important in the analysis of clitics. Information structure can influence the syntax of the clause and hence the relative placement of the clitics, and many discourse markers are themselves clitics (Sharma 2003). In addition, information and discourse structure can influence whether a clitic pronoun is chosen as opposed to a full form pronoun or even a noun phrase. Finally, information structure is crucial in determining when clitic doubling occurs. A Bulgarian example of clitic doubling is shown in (24) from Jaeger and Gerassimova (2002), who propose an LFG analysis of Bulgarian clitic doubling crucially involving information and discourse structure.

(24) Decata   *ja*   običat   Marija/neja.
     children-DEF her-3SG love-3PL Maria/her
     'The children love her.'

Also not discussed in detail in this paper, morphology is also needed for the analysis of clitics. Morphology is often assumed to be relatively unimportant for clitic placement within the clause (but see Anderson 2005 and Luis 2004 for analyses that make crucial use of morphology for clitic placement). Morphology and phonology play a more prominent role in the ordering of clitics within the cluster, and analyses differ as to whether these are entirely responsible for cluster ordering or if the order is all or partially derived from the syntax. Morphophonology is also crucial in accounting for unexpected surface forms of clitics. These pecularities occur in the clitic systems of many languages. For example, in SCB when the cluster contains the accusative third singular clitic *je* directly adjacent to the third singular auxiliary clitic *je*, they surface as *ju je*; the *ju* form is not seen elsewhere. As another example, the SCB third singular auxiliary *je* can be dropped after the reflexive *se* and sometimes after the first and second person clitics *me* and *te*. These facts are generally assumed to follow from the morphophonological analysis of the clitic cluster.

LFG's projection architecture provides access to each of these types of information, including access from each type to the others. These interactions are formally well defined, allowing the theory to make concrete predictions about clitics in a given language. In addition, all of the components that are needed for the analysis of clitics have been independently proposed for LFG. Thus, the analysis of clitics does not require a radical reformulation of the theory or architecture of LFG. Instead, their analysis should shed light on the nature of the interactions between the different projections. The bottom line is that LFG theory is not complete without an analysis of clitics and analysis of clitics will make the overall architecture of the LFG theory and formalism clearer.

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