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SECOND-POSITION CLITICS IN THE vP PHASE: THE CASE OF THE ARMENIAN AUXILIARY
Arsalan Kahnemuyipour
University of Toronto
Karine Megerdoomian
MITRE

1 Introduction

Special clitics appear in a position that is different from the one favored by their associated full forms (Zwicky 1977). Linguistic analyses have identified two main categories of special clitics: (a) second-position or Wackernagel clitics that must appear as the second element in a clause (as in Bosnian-Croatian-Serbian (henceforth, BCS), Czech,

Cypriot, Pashto, and Tagalog); and (b) verb-adjacent clitics that take the verb as their host (as in Romance languages such as French, Spanish, and Catalan). The auxiliary verb in Eastern Armenian[1] (henceforth, EA) is a clitic that carries tense and agreement features and appears on seemingly unrelated elements within the clause in focus-neutral sentences, as exemplified in (1), where italics indicate main clausal stress. The auxiliary is a special clitic by virtue of the fact that it can appear in varying positions that a full-form verb cannot occupy. However, it appears to defy classification in the major known categories of special clitics: The auxiliary remains low in the main clause in neutral contexts and does not occupy the second position in the sentence, as shown in (1c). In addition, it does not have to be adjacent to the main verb, as illustrated in (1d).

(1) a. *On the verb*
        šun-ə   *vaz-um*   **a**
        dog-NOM run-PROG be.3SG.PRES
        'The dog is running.'

    b. *On nonspecific object*
        ara-n   *girk^h* **a**   kart^h-um
        Ara-NOM book be.3SG.PRES read-PROG
        'Ara is reading a book / Ara reads books.'

    c. *On manner adverb*
        es   šun-ə   *arag* **a**   vaz-um
        this dog-NOM fast be.3SG.PRES run-PROG
        'This dog runs fast.'

    d. *On measure adverb*
        ara-n   *šat* **a**   girk^h kart^h-um
        Ara-NOM very be.3SG.PRES book read-PROG
        'Ara reads (books) a lot.'

The goal of this squib is to account for the puzzling positional distribution of the Armenian auxiliary clitic in the focus-neutral context.[2] We propose that the auxiliary is a case of a second-position clitic in the vP domain, akin to the second-position phenomena observed across languages in the CP domain. In doing so, we draw heavily on the parallel between CP and vP in recent syntactic literature—in particular, their status as phases in the minimalist framework (e.g., Chomsky 2001).

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[1] Armenian is an Indo-European language; the Eastern dialect is spoken in Armenia and Iran. Examples here represent the colloquial Iranian-Armenian dialect. In particular, it should be noted that the 3rd person singular form of the auxiliary in the literary register is *e* rather than *a*.

[2] We leave a closer examination and analysis of the interaction between information structure and the position of the auxiliary to future research. For a preliminary analysis, see Kahnemuyipour and Megerdoomian 2010.

2 The Auxiliary Clitic

The verbal auxiliary 'be' in EA is an enclitic that carries tense and agreement features. The auxiliary occurs in all the tenses of the indicative with the exception of the aorist, as shown in (2a–b) for the progressive, (2c–d) for the perfective, and (2e–f) for the future. (3) shows the absence of the auxiliary in the aorist.

(2) a. yes kart^h-um   **em**
    I   read-PROG be.1SG.PRES
    'I am reading / I read.'

  b. yes kart^h-um   **ei**
    I   read-PROG be.1SG.PAST
    'I was reading.'

  c. yes kart^{h}ac^h-el   **em**
    I   read(AOR)-PERF be.1SG.PRES
    'I have read.'

  d. yes kart^{h}ac^h-el   **ei**
    I   read(AOR)-PERF be.1SG.PAST
    'I had read.'

  e. yes kart^h.al-u   **em**
    I   read.INF-FUT be.1SG.PRES
    'I am going to read.'

  f. yes kart^h.al-u   **ei**
    I   read.INF-FUT be.1SG.PAST
    'I was going to read.'

(3) yes kart^{h}ac^h-i
    I   read(AOR)-1SG
    'I read.'

Tamrazian (1994) argues that the EA auxiliary is an enclitic since it does not carry stress and requires a host to precede it. This can be seen in the contrast between the behavior of the auxiliary and that of an attached agreement suffix. Word-level stress, which falls on the final syllable in EA, appears on the agreement suffix in (4a), whereas it falls on the last syllable of the word preceding the auxiliary in (4b). Moreover, the auxiliary does not undergo morphophonological alternations, whereas the agreement suffix for the 3rd singular form changes from *a* to *i* when stressed.

(4) a. yete yerk^h-**í**
    if   sing-3SG.PRES
    'if he/she sings'

  b. yerk^h-úm **a**
    sing-PROG be.3SG.PRES
    'He/She is singing / He/She sings.'

The auxiliary's relative phonological independence underlines its clitic behavior, in clear contrast to the agreement suffix, which becomes part of the phonological word it attaches to. It is worth noting

that this distinction is marked in the EA orthographic practice, where the auxiliary is written separately from the host while agreement suffixes are represented as attached to the word.

3 Positional Distribution

In focus-neutral intransitive contexts, the EA auxiliary appears on the verb in an unergative construction (5), whereas if the verb is unaccusative, the auxiliary follows the subject (6).

(5) me hat šun *vaz-vəz-um* **a**
one CL dog run-REDUP-PROG be.3SG.PRES
'A dog is running around.'

(6) *me hat tup^h* **a** has-el
one CL box be.3SG.PRES arrive-PERF
'A box has arrived.'

If the sentence contains a compound verb formed from the combination of a preverbal element (generally, a noun or adjective) and a light verb, the auxiliary has to attach to the preverb, as illustrated in (7a). Placing the auxiliary after the verb results in ungrammaticality, as shown in (7b).

(7) a. ara-n ir nkar-ner-ə mez *c^{h}uyc^h*
Ara-NOM his picture-PL-SPEC us demonstration
a tal-u
be.3SG.PRES give-FUT
'Ara will show us his pictures.'

b. *ara-n ir nkar-ner-ə mez c^{h}uyc^h
Ara-NOM his picture-PL-SPEC us demonstration
tal-u **a**
give-FUT be.3SG.PRES

If a nonspecific object is present in a clause, the auxiliary cliticizes to the object whether the object is bare as in (8) or quantified as in (9).

(8) a. ara-n *girk^h* **a** aŕ-el
Ara-NOM book be.3SG.PRES buy-PERF
'Ara has bought a book/books.'

b. *ara-n *girk^h* aŕ-el **a**
Ara-NOM book buy-PERF be.3SG.PRES

(9) yerex-erk-ə *me hat muk* **en** č^{h}ar-el
child-PL-NOM one CL mouse be.3PL.PRES find-PERF
'The children have found a mouse.'

If both a compound verb and a nonspecific object are present, the auxiliary follows the nonspecific object, as illustrated in (10a). In this sentence, the auxiliary cannot remain on the preverbal element *kul* of the compound verb *kul tal* 'swallow', as in (10b), without giving rise to a contrastive focused reading.

(10) a.　višapoc^h-ə mi　gišatič　*gazan* **er**　　　kul
　　　　boa-NOM　one predatory beast　be.3SG.PAST (throat)
　　　　talis
　　　　giving
　　　　'The boa constrictor was swallowing a wild beast.'

　　b.　*višapoc^h-ə mi　gišatič　*gazan* kul　　**er**
　　　　boa-NOM　one predatory beast　(throat) be.3SG.PAST
　　　　talis
　　　　giving
　　　　'*The boa constrictor was swallowing a wild beast.'

　　There is a clear contrast, however, in the behavior of nonspecific and specific objects with respect to the placement of the auxiliary. In an SOV sentence, the auxiliary appears on the object if it is nonspecific, but it appears on the verb if the object is specific. In (11b), the direct object carries the overt -ə morpheme that gives rise to a specific interpretation. In this instance, the auxiliary appears on the verb.[3]

(11) a.　ara-n　　*girk^h* **a**　　　　ar-el
　　　　Ara-NOM book be.3SG.PRES buy-PERF
　　　　'Ara has bought a book/books.'

　　b.　ara-n　　girk^h-ə　　*ar-el*　　**a**
　　　　Ara-NOM book-SPEC buy-PERF be.3SG.PRES
　　　　'Ara has bought the book.'

　　The auxiliary verb obligatorily follows the manner or measure adverb if the latter is present, as shown in (12). It cannot remain attached to any other element within the clause in a focus-neutral sentence.

(12) a.　es　šun-ə　　*arag* **a**　　　　vaz-um
　　　　this dog-NOM fast　be.3SG.PRES run-PROG
　　　　'This dog runs fast.'

　　b.　nairi-n　　*lav*　**er**　　　　gndak xaq-um
　　　　Nairi-NOM good be.3SG.PAST ball　　play-PROG
　　　　'Nairi was playing ball well.'

　　c.　yerex-erk-ə esor　*šat* **en**　　　　das　sovor-el
　　　　child-PL-NOM today very be.3PL.PRES lesson learn-PERF
　　　　'The children have studied a lot today.'

　　In EA, the same lexical item can be used as an adverb with a manner reading or with a sentential interpretation. This is exemplified with the adverb *vstah* in (13), which can mean either 'confidently' or the sentential adverb 'certainly'. Interestingly, the auxiliary appears on the adverb if it has the manner reading (13a), but on some lower element if it has the sentential reading (13b).

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[3] If the auxiliary attaches to the specific direct object in this example, it gives rise to a focused reading.

(13) a. anuš-ə   *vstah*   **a**   votanavor
       Anoush-NOM confident be.3SG.PRES poem
       artasan-el
       recite-PERF
       'Anoush recited a poem/poems with confidence.'

     b. anuš-ə   vstah   *votanavor* **a**
       Anoush-NOM confident poem   be.3SG.PRES
       artasan-el
       recite-PERF
       'Anoush has certainly recited a poem/poems.'

The examples in this section show that the auxiliary does not have to remain adjacent to the verbal element and sometimes attaches to elements far removed from the verb. Furthermore, examples such as (12c) and (13b) clearly indicate that the auxiliary is not a second-position clitic in the whole clause, given its distance from the edge of the clause. In fact, the auxiliary cannot be placed on the subject or the sentential adverb unless they are focused. In what follows, we present an analysis for the distribution of the auxiliary where we argue that it should, in fact, be treated as a second-position clitic.

4 The Auxiliary as a Second-Position Clitic

The study of the positional distribution of the auxiliary in the last section indicates a clear hierarchy of the elements that trigger auxiliary attachment in nonfocused contexts. The auxiliary follows the manner/measure adverb if there is one. In the absence of a manner/measure adverb, it follows the nonspecific object. In the absence of the object, the auxiliary appears on the preverbal element of a compound verbal construction. Finally, in the absence of all these elements, the auxiliary appears on the main verb. We translate the above empirical generalization into the following structural account: the auxiliary follows the highest constituent in a well-defined domain, to be elaborated below. This generalization is illustrated schematically in (14) (DO = direct object; NSP = nonspecific).

(14) Subject   [*Manner adverb*   AUX   DO-NSP   Preverb   Verb]
           Subject   [*DO-NSP*   AUX   Preverb   Verb]
                Subject   [*Preverb*   AUX   Verb]
                      Subject   [*Verb*   AUX]

The schema in (14) clearly shows the second-position status of the EA auxiliary clitic. Meanwhile, the domain in which the notion of second-position clitic is applied is different from the one traditionally assumed in the literature, namely, the clause or CP. To account for the distribution of the EA auxiliary clitic, we propose that the notion of second position needs to be extended to the vP domain. This extension follows naturally given the parallel between CP and vP in recent syntactic literature—in particular, their status as phases in the minimalist framework (e.g., Chomsky 2001). In other words, as opposed to other cases of second position clitics discussed in the literature that occupy

second position within the CP phase, the EA auxiliary emerges as a case of the second-position effect within the Spell-Out domain of the lower vP phase. This analysis, coupled with a number of previously established claims, paves the way for a straightforward account of the distributional facts above.

Megerdoomian (2002) shows that specific and nonspecific objects occupy distinct structural positions in EA. While the former are vP-external and can be separated from the verb by intervening material such as adverbs, instrumentals, and PPs, the latter are vP-internal.[4] This difference leads to a contrast in the placement of the auxiliary: while the auxiliary follows the nonspecific direct object in the absence of any higher vP-internal element such as a manner adverb, it never follows the specific object in a focus-neutral context (see (11)). In addition, Kahnemuyipour (2004, 2009) argues that manner/measure adverbs mark the left edge of the vP in EA and Persian (see also, e.g., Holmberg 1986, Webelhuth 1992). As a result, when a manner/ measure adverb is present in the sentence, the auxiliary follows it, as it is the highest element in the Spell-Out domain of the lower vP phase. In contrast, the auxiliary does not follow the higher, vP-external adverbs in focus-neutral contexts (see (12) and (13)). Furthermore, it has been argued that there is a difference between unaccusative and unergative verbs with respect to their phasal status, with only the latter inducing phasal boundaries (e.g., Chomsky 2001; contra Legate 2003). As a result, in the case involving an unaccusative verb, the auxiliary appears after the subject, that is, in the second position of the only phase available, while with an unergative verb, there are two phasal domains and the auxiliary appears after the highest element in the lower Spell-Out domain, namely, the verb (see (5) and (6)). This sensitivity to the unaccusative/unergative status of the verb highlights the relevance of phases in computing the domain for second-position clitics.

We have established that the EA auxiliary clitic appears in the second position of the lower Spell-Out domain. A question remains about the mechanics of how the auxiliary ends up in this second position. This is really part of a larger debate on the correct analysis of second-position phenomena in general (for purely syntactic accounts, see, e.g., Wilder and Ćavar 1994, Franks and Progovac 1994, Progovac 1996; for a purely phonological account, see Radanović-Kocić 1996; for mixed syntax-phonology accounts, see, e.g., Halpern 1992, 1995, Bošković 2001). While a detailed account of second-position clisis in general, and the case of the EA auxiliary in particular, is beyond the scope of this squib, the EA facts seem to rule out several possibilities and point to a dynamic view of the definition of linguistic domains.

At first glance, the position of the auxiliary may appear to be determined in a purely phonological manner on the basis of primary

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[4] Similar arguments have been made for Turkish (Enç 1991), Persian (Karimi 1996), Hindi (Mahajan 1990), and Urdu (Butt 1995), among others.

stress, as the auxiliary often follows the element carrying primary stress in the sentence. Meanwhile, a closer look at EA facts reveals that the auxiliary is sensitive to syntactic structure and does not simply attach to the element with main stress. Thus, for example, the auxiliary appears on the syntactic phrase at the edge of the lower Spell-Out domain as in (15), and not on the X^0 element that carries the main stress (16a) or even the XP contained in this constituent when it carries main stress (e.g., the AP in (16b)). There is generally no splitting of the syntactic constituent, as shown in (16), unlike in some other second-position languages (see, e.g., Radanović-Kocić 1996, Franks 2000, Bošković 2001).[5]

(15) a. es šun-ə   [*šat* arag] **a**   vaz-um
        this dog-NOM very fast   be.3SG.PRES run-PROG
        'This dog runs very fast.'

     b. yerex-erk-ə [me hat *metz* muk] **en**
        child-PL-NOM one CL big   mouse be.3PL.PRES
        čʰar-el
        find-PERF
        'The children have found a big mouse.'

(16) a. *es šun-ə   *šat* **a**   arag vaz-um
         this dog-NOM very be.3SG.PRES fast run-PROG
         '*This dog runs very fast.'

     b. *yerex-erk-ə   me hat *metz* **en**   muk
        child-PL-NOM one CL big   be.3PL.PRES mouse
        čʰar-el
        find-PERF
        '*The children have found a big mouse.'

The facts in (15) and (16) indicate that a purely prosodic account of the EA auxiliary is on the wrong track. If the auxiliary simply attached to the element with primary stress, it would be difficult to justify why it does not appear on the lexical item or even the phrase containing main stress. The apparent correspondence between the placement of the auxiliary and the placement of primary stress, on the other hand, follows from the mechanics of how each is computed with reference to phasal domains. Under this view, the highest constituent in the Spell-Out domain of the lower-phase vP is also the position of main sentential stress (Kahnemuyipour 2004, 2009). The auxiliary is in the second position within this Spell-Out domain. As a consequence, the auxiliary follows the syntactic constituent containing the prosodi-

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[5] In the literature on BCS second-position clitics, splitting has been taken by some scholars as an argument against a purely syntactic account and in favor of the need for some phonological operation such as Prosodic Inversion (see Halpern 1995). Others have argued that splitting occurs only with elements that can undergo syntactic movement in independent contexts, thus taking the evidence as additional support for a syntactic analysis (see Bošković 2001 and references therein). The crucial point for us is that the unavailability of splitting in EA provides strong evidence against a purely prosodic account.

cally most prominent element in the sentence. This leads to a straightforward mapping between syntactic and prosodic constituents, taking advantage of the notion of phase or cyclic Spell-Out. Hence, the structural height of the constituent prior to Spell-Out determines both prosody (stress assignment) and clitic placement in this approach.

In addition, the relevant domain for computing second position in EA does not seem to coincide with any prosodic domain, as defined traditionally in the Phrasal Phonology framework (e.g., Selkirk 1984, Nespor and Vogel 1986). In these frameworks, prosodic phrases are defined in a static manner with reference to (edges of) syntactic constituents. The relevant domain for computing second-position clisis cannot be equated with the intonational phrase, for example, which has been traditionally taken to correspond to the whole clause. Nor can it be equated with a static definition of the phonological phrase given that it is the CP in some contexts (with unaccusative verbs, discussed above) and the vP in others. The EA facts, on the other hand, are more amenable to a dynamic view of prosodic domains, and could in particular be equated to Ishihara's (2007) phonological phrase defined as the lower phase in a multiple Spell-Out system (see also Kratzer and Selkirk 2007). In fact, in this more dynamic conception, there may be no need for reference to intonational or phonological phrases at all, at least with respect to the second-position phenomenon, as these notions follow directly from the dynamics of the multiple Spell-Out system.[6] This view may also pave the way for a unified analysis of second-position clisis across languages. The difference between second-position clisis in EA and second-position clisis in a language like BCS, which exhibits the second-position effect within the whole clause, can be attributed to how high the clitic merges (or moves) in the two languages. Therefore, while in both languages the clitics occupy second position in a Spell-Out domain, in EA they remain within the vP phase whereas in BCS they appear in the higher Spell-Out domain.[7]

[6] In this approach, second-position clisis may fall within phenomena known under the general rubric of "edge-sensitivity." Thus, for instance, "second position" may be a PF solution to a ban on the emptiness of the edge of a Spell-Out domain (see An's (2007) Intonational Phrase Edge Generalization; also Kandybowicz 2009).

[7] A question remains about crosslinguistic variation with respect to the host of the clitic, as in the ban on splitting found in EA, but not in BCS, for example. One possibility is to attribute this difference to the availability of left-branch extraction in BCS (see Bošković 2005) and its unavailability in EA, an independent syntactic difference between the two languages. We thank an anonymous reviewer for an insightful discussion unifying the accounts of EA and BCS.

In the context of the parallelism between CP and vP and our findings about EA, we expect to come across more languages with second-position clitics within vP. In fact, the Turkish yes/no question marker appears to have a distribution very similar to that of the EA auxiliary discussed here (for relevant data, see Kamali and Samuels 2008).

5 Conclusion

In this squib, we have proposed a novel analysis of the Eastern Armenian auxiliary in focus-neutral clauses. This auxiliary has emerged as an interesting example of a second-position phenomenon, where second position is defined with respect to the vP or the lower Spell-Out domain rather than the more traditionally postulated clausal domain. The analysis has implications for the growing literature on the syntax-phonology interface and the parallel between the vP and CP domains.

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