

Projection of Direct Objects

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The existence of two distinct structural positions for the direct object has been argued for in languages such as Hindi, Turkish, Persian and Scottish Gaelic. In all of these approaches, the different structural positions give rise to distinct semantic interpretations. In this paper, I show that Eastern Armenian provides clear evidence for two object positions, displaying a strong correlation between case morphology, specificity, phrasal stress pattern and adjacency to the verb.

1 Case Morphology in Eastern Armenian

Eastern Armenian (EArmenian) is a verb-final Indo-European language. The direct objects can be classified into four distinct categories based on NP type and case morphology as shown in the examples below. Sentence (1) contains a definite object, which consists of a noun carrying an overt accusative morpheme. If the object lacks overt case morphology, such as the one illustrated in (2), it is interpreted as an indefinite (*a book/books*). The presence or absence of accusative case, however, does not correspond to the definiteness of the NP as the examples containing quantified indefinite objects in (3) clearly suggest. Quantified indefinites consist of a numeral, an optional classifier and a noun, and may appear with or without overt case morphology.

- (1) Ara-n girk-ə ayr-ets *definite*
 Ara-Nom book-Acc burnt
 'Ara burnt the book.'
- (2) Ara-n girk ayr-ets *bare indefinite*
 Ara-Nom book burnt
 'Ara burnt a book/books.'
- (3) a. Ara-n mi girk ayr-ets *quantified indefinite (without case)*
 Ara-Nom one book burnt
 'Ara burnt a book.'
- b. Ara-n mi girk-ə ayr-ets *quantified indefinite (with case)*
 Ara-Nom one book-Acc burnt
 'Ara burnt one book/one of the books.'

2 Two Object Positions

2.1 Adverbs

It is generally agreed upon that adverbs occupy a fixed position in the phrase structure and can thus be used to test the relative position of other elements in the clausal structure. Consider the following examples involving sentential adverbs and definite direct objects bearing overt accusative case. As shown in (4b), the sentential adverb is allowed to intervene between the direct object and the main verb of the sentence.

- (4) a. Ara-n *vst'ah* ays girk-ə k'-k'arta
 Ara-Nom certainly this book-Acc Part-read/3sg
 'Ara will certainly read this book.'
- b. Ara-n ays girk-ə *vst'ah* k'-k'arta
 Ara-Nom thisbook-Acc certainly Part-read/3sg
 'Ara will certainly read this book.'

In contrast to the definite object, the bare indefinite may not be separated from the verb. The following sentences involve indefinite objects that do not bear overt case morphology. The example in (5a) shows a sentential adverb preceding the indefinite. But as the example in (5b) indicates, when the adverb appears between the indefinite object and the verb, the sentence becomes ungrammatical.

This sentence is felicitous only with a focus stress on the object, which gives rise to a contrastive reading.

- (5) a. *yexxa-ner-ə havanabar hetzaniv k'-ksh-en*
 child-Plur-Nom probably bicycle Part-ride-3pl
 'The children will probably ride a bicycle/bicycles.'
- b.* *yexxa-ner-ə hetzaniv havanabar k'-ksh-en*
 child-Plur-Nom bicycle probably Part-ride-3pl

The fact that sentential adverbs may separate the case-marked objects from the verb but are disallowed from appearing between the bare indefinites and the verb clearly suggests that the two object types occupy different structural positions. Furthermore, sentential adverbs have been argued to occupy a position that is high in the clausal structure. These adverbs are considered to be outside of the VP domain, generally licensed either by the Complementizer or the Inflectional heads (Potsdam 1999). The fact that these adverbs can appear between the accusative objects and the verb indicates that the overtly case-marked direct objects are also outside of the VP projection. On the other hand, objects without an overt case morpheme are not allowed to separate from the verb by sentential adverbs and remain in the preverbal position, which is good indication that the bare indefinites are VP-internal arguments.

Other constituents may also intervene between the case-marked direct object and the verb but are unable to appear between the bare object and the verb. The sentences below exemplify such cases with intervening instrumentals (6) and full postpositional phrases (7).

- (6) a. *Siran-ə duR-ə banali-ov bats-ets*
 Siran-Nom door-Acc key-Instr open-Aor/3sg
 'Siran opened the door with a key.'
- b. ?**Siran-ə duR banali-ov bats-ets¹*
 Siran-Nom door key-Instr open-Aor/3sg
- (7) a. *Siran-ə t'un-ə ays ashak'ert'-i het' varts-ets*
 Siran-Nom house-Acc this student-Gen with rent-Aor/3sg
 'Siran rented the house with this student.'
- b. ?**Siran-ə t'un ays ashak'ert'-i het' varts-ets*
 Siran-Nom house this student-Gen with rent-Aor/3sg

Similar behavior is attested with quantified indefinites. If the indefinite appears with overt case morphology as in (8), the sentential adverb may separate the direct object from the main verb. But as the sentence in (9) indicates, the adverb is not allowed to intervene between the caseless object and the verb without giving rise to a contrastive reading.

- (8) Ara-n mi k'atv-in *ənthanrap'es* k'erak'r-um er
 Ara-Nom one cat-Acc usually feed-Imp was
 'Ara usually used to feed one of the cats.'
- (9) *Ara-n mi girk *ənthanrap'es* k'art-um e
 Ara-Nom one book usually read-Imp is

These results indicate that objects with overt accusative case pattern together regardless of the definiteness of the noun phrase, and the two indefinite types that lack overt case morphology display a similar pattern. The behavior of the direct objects with respect to the adverbs suggests that the two object types occupy different structural positions. The bare object is inside the VP whereas the case-marked object appears external to the Verb Phrase.

2.2 Stress Pattern

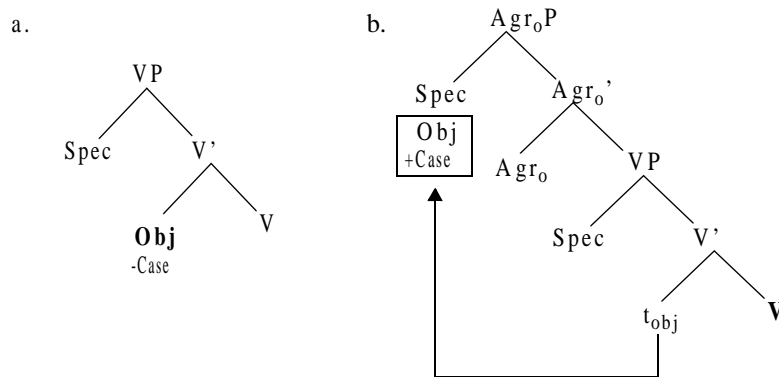
Additional support for the existence of two structural positions for the direct objects is provided by the sentential stress patterns in EArmenian. Transitive sentences containing case-marked objects display a phrasal stress pattern that is distinct from transitive sentences with bare indefinites. When the direct object appears with overt case morphology, the main stress of the sentence is assigned on the verb. This is illustrated in (10) where the arguments receiving the main stress are in uppercase. Note that (10a) represents a definite object, and (10b) contains a case-marked quantified indefinite. In the sentences in (11), on the other hand, the objects do not bear case. In all instances, the indefinite object is stressed.

- (10) a. Ara-n girk-ə AYR-ETS
 Ara-Nom book-Acc burn-Aor/3sg
 'Ara burnt the book.'
- b. menk yerek' yerku shish gini-n VERCHATSr-ETS-INK
 we-Nom yesterday two bottle wine-Acc finish-Aor-3pl
 'We finished two bottles of the wine yesterday.'

- (11) a. Ara-n GIRK gn-ets
 Ara-Nom book buy-Aor/3sg
 ‘Ara bought a book/books.’
 b. k’at’u-ner-ə norits mi MUK’ brn- ets - in
 cat-Plur-Nom again one mouse catch-Aor-3pl
 ‘The cats caught a mouse again.’

Cinque (1993) argues that the assignment of Nuclear Stress is determined by the syntactic structure of the sentence since the main stress appears on the most deeply embedded constituent in the clause. Thus, in the case of head-final languages, such as EArmenian, the main stress of the sentence is expected to fall on the object that appears to the left of the verbal element as illustrated with the bare indefinite in (11). Since Cinque’s analysis predicts that the most deeply embedded constituent within the sentence will receive the nuclear stress, if the object is inside the VP, it will be the recipient of the main stress. On the other hand, if there is no other element within the verb phrase but the verb itself, then the prominent stress will be assigned to the verb as was the case in (10). This is illustrated in the configurations in (12).

(12)



Hence, when the direct object does not carry any case, it stays within the VP as shown in (12a). The caseless object is the most deeply embedded element in the clause and receives the nuclear stress. The case-bearing object, however, appears outside of the VP as illustrated in (12b). I suggest that the object appears in the specifier of the Agreement Projection (Agr_oP) since certain languages, such as

Hindi, display overt agreement on the verb with case-marked objects (Mahajan 1990)². In this configuration, the verb is the most deeply embedded element and thus receives the main stress.

2.3 Case-marking and Interpretation

The correlation between case-marking and the semantic interpretations found in the object NPs has been noted in a number of languages. For instance, Enç (1991) remarked that in Turkish, object NPs with overt accusative case are always specific whereas NPs appearing without the accusative case are obligatorily interpreted as nonspecific. Enç (1991) provides a definition for the semantic interpretation of specificity based on the link of the NP to the previously established domain of discourse. If an element is specific, then the link is usually one of inclusion; the referent of the NP is a *subset* of the already established domain of discourse. An important distinction between specific and nonspecific elements is that specificity presupposes existence, whereas nonspecific NPs assert an existence.

Consider the sentences in (13). The indefinite object in (13a) doesn't carry an accusative case morpheme, and it receives a nonspecific interpretation. This sentence suggests that Ara is trying to catch a horse, any horse will do. The indefinite in (13b), however, bears accusative case, and it refers to a particular horse that Ara is trying to catch. Hence the indefinite in (13b) is interpreted as a specific object.

- (13) a. Ara-n ashxat'-um e mi hat' dzi brni
 Ara-Nom try-Imp is one CL horse catch-Subj/3sg
 'Ara is trying to catch a horse.'
- b. Ara-n ashxat'-um e mi hat' dzi-in brni
 Ara-Nom try-Imp is one CL horse-Acc catch-Subj/3sg
 'Ara is trying to catch a horse.'
 ‡ 'There is a horse such that Ara is trying to catch it.'

Accusative case-marking on the quantified indefinites can also mark a partitive reading as exemplified in the contrast below:

- (14) a. k'at'u-n mi mk'-an brn-el e
 cat-Nom one mouse-Acc catch-Perf is
 'The cat has caught a mouse/one of the mice.'

b. k'at'u-n mi muk' e brn-el
 cat-Nom one mouse is catch-Perf
 'The cat has caught a mouse.'

Suppose a context in which the cat has been chasing some mice for a while. The case-marked direct object in (14a) would then refer to a mouse from this presupposed set of mice, namely that the cat has caught one of the mice that it had been chasing. (14b), on the other hand, does not allow for such a reading; it is about some mouse or other (there is no pre-established set of mice in the discourse).

Since definites always receive a strong interpretation, we naturally expect definite object NPs to always carry the accusative case. This expectation is borne out, as illustrated in the following three examples involving Proper Names, Pronouns, and demonstrative NPs, respectively.

- (15) Ara-n Siran-in hampuyr-um e
 Ara-nom Siran-Acc kiss-Imp be-Present/3sg
 'Ara is kissing Siran.'
- (16) Ara-n iren hampuyr-um e
 Ara-nom her/him(Acc) kiss-Imp be-Present/3sg
 'Ara is kissing her/him.'
- (17) Ara-n ays girk-ə k'artats-el e
 Ara-nom this book-Acc read-Perf be-Present/3sg
 'Ara has read this book.'

Without the accusative case marking, these sentences are ungrammatical:

- (18) *Ara-n Siran hampuyr-um e
 Ara-nom Siran kiss-Imp be-Present/3sg
- (19) *Ara-n ir hampuyr-um e
 Ara-nom her/him(Gen) kiss-Imp be-Present/3sg
- (20) *Ara-n ays girk k'artats-el e
 Ara-nom this book read-Perf be-Present/3sg

Enç points out that the specific/nonspecific categorization parallels the distinction between "strong" and "weak" determiners proposed by Milsark (1977). Namely, if an NP contains a strong determiner, it is specific and if the determiner of the NP is weak, then it can be interpreted as either specific (including partitive) or nonspecific. If EArmenian case-marking does in fact

correspond to the specificity of the object, the object NPs with strong determiners should always bear overt case morphology while those containing weak determiners could appear with or without accusative case. We have already seen that definite descriptions follow this pattern (examples (15) - (17)). The following sentences further confirm this contrast.

Universally quantifying indefinites often behave like specific elements³. In EArmenian, the universal quantifiers *amen* (=all) or *amen mi* (lit: all one = each) need to appear within an object NP that has been marked for case.

- (21) a. Yes *amen* grk- er -ə k'artats-el em
 I all book-Plur-Acc read-Perf be-Present/1sg
 'I have read all the books.'
- b. *Yes *amen* grk-er k'artats-el em
 I all book-Plur read-Perf be-Present/1sg

Consider the following sentences containing object NPs with the weak determiner *mi kani* (=a few/several). The sentence in (22a) shows the nonspecific reading of the direct object NP; note that the object does not bear accusative case. In the corresponding sentence in (22b), however, the direct object appears with overt case and it is interpreted as a partitive, i.e. receives specific reading.

- (22) a. Ara-n mi kani hat' girk e ar-el
 Ara-Nom one few CL book is buy-Perf
 'Ara has bought a few books.'
- b. Ara-n mi kani hat' grk-er -ə arten k'artats-el e
 Ara-Nom one few CL book-Plur-Acc already read-Perf is
 'Ara has already read a few of the books.'

Additional evidence for the relation between overt case morphology and strong interpretation comes from *wh*-elements. Pesetsky (1987) argues that certain *wh*-phrases of the form *which N* are D-linked (or discourse linked). This notion seems to correspond to Enç's specificity reading⁴. As expected, *which N* phrases always carry the accusative case in object positions in EArmenian as illustrated in (23). This is in contrast to other *wh*-phrases which behave like the weak determiner NPs, in that they can appear with or without overt case as shown in (24).

- (23) a. Ara-n vor girk-ə k'art-ats
 Ara-Nom which book-Acc read-Aor/3sg
 'Which book did Ara read?'
 b. *Ara-n vor girk k'art-ats
 Ara-Nom which book read-Aor/3sg
- (24) a. Ara-n inch k'art-ats
 Ara-Nom what read-Perf
 'What is Ara reading?'
 b. Ara-n inch-ə k'ar-tats
 Ara-Nom what-Acc read-Aor/3sg
 'What did Ara read?'
 ‡ 'Which part did Ara read?'

(23a) consists of an object in the form of *which N*, that bears the accusative case. As shown in (23b), the case is obligatory on this DP. The sentences in (24) also contain *wh*-phrase objects. These *wh* DPs have the option of appearing with or without the case morpheme. (24a) simply inquires about what Ara is reading. The interpretation is similar to the English question given in the translation. In (24b), the question can be translated as “which part did Ara read?”. The presupposition is that Ara read something and there is a pre-established domain of referents that the *wh*-DP is linked to. Hence, the accusative case is forcing a partitive reading as in “which one (of the sections/books) did Ara read?”.

The data discussed clearly point to a correlation between case morphology and the specificity reading of the direct objects. The table below illustrates the generalizations obtained about the behavior of the direct objects in EArmenian.

	overt case	verb adjacency requirement	object position	semantic interpretation
definite object	yes	no	VP-external	specific
bare indefinite	no	yes	VP-internal	nonspecific
quantified indefinite	yes	no	VP-external	specific
	no	yes	VP-internal	nonspecific

3 Frameworks for Two Object Positions

The phenomenon of two distinct object positions has been argued before in the literature. Studies on various languages (Enç 1991 and Kural 1992 on Turkish, Mahajan 1990 on Hindi, Karimi 1996 on Persian, to name a few) have pointed to the existence of two object types with distinct case morphology. The data also show that the two object types occupy different positions in the phrase structure. Moreover, the different case-marking on these object NPs correlates with the specificity readings obtained.

Several frameworks have been proposed to account for the crosslinguistic data. The common motivation of these studies has been to link the semantic and syntactic properties of case in a principled way. The EArmenian data discussed in this paper are compatible with these frameworks. Diesing (1990) develops the Mapping Hypothesis, which provides a mapping of the syntactic clause structure into a level of semantic interpretation. This partitioning allows the syntactic structure of the sentence to be mapped into an interface level in which the semantic interpretation of arguments is applied. Hence, according to the Mapping Hypothesis, an argument receiving a specific reading is located outside the VP. Nonspecific arguments, however, remain internal to the Verb Phrase. De Hoop (1996) also argues for two distinct structural positions. In de Hoop's analysis, weak NPs (i.e., existential) receive what she calls *weak case*. This is, in a sense, a default structural case assigned to the object at its D-structure position. The strong NPs, however, receive a *strong case* in their S-structure configuration. Thus, for the data in EArmenian, strong case would be the overt accusative case, whereas weak case would refer to the bare case or the lack of overt case.⁵

4 Against an incorporation analysis

It has been suggested in the literature that the caseless NP incorporates into the verb (Enç 1991, Kornfilt 1997, Borer 1994, de Hoop 1996 among others). In this paper, however, I argue against a syntactic incorporation analysis in EArmenian.

The main argument against the syntactic incorporation of the bare object into the verb comes from the stress patterns observed. In EArmenian, the main stress at the word level is on the last syllable as illustrated in (25). But as the example in (26) shows, the main stress of a sentence carrying a bare object falls on the object itself and not on the verb. If the object had been incorporated into the verb

in syntax, we would expect the main stress to fall on the last syllable of the object-verb construction, which is certainly not the case.

- (25) a. *inknazohutyún* 'self-sacrifice'
b. *grataxták* 'blackboard'

- (26) *Ara-n gír k'artats*
Ara-Nom book read/3sg
'Ara read a book/books.'

In addition, (27) shows that the auxiliary clitic (which appears on the most prominent element in the clause) can intervene between the object and the verb by cliticizing on the bare object.

- (27) *Ara-n gír e k'artum*
Ara-Nom book is reading
'Ara is reading a book/books.'

5 Conclusion

I have argued for two distinct structural positions for the direct objects in EArmenian. The data involving requirements for verb-adjacency in the presence of intervening material in syntax (such as sentential adverbs), phrasal stress pattern and semantic interpretation strongly suggest the existence of two distinct positions for case-marked and caseless objects. These results show a striking parallel with the crosslinguistic data. It was proposed that direct objects appearing with an overt case morpheme at surface structure are in a projection outside of the VP (Agr_oP). These DPs are interpreted as specific elements. Objects that do not bear overt accusative case, however, remain within the VP projection; they receive a weak or nonspecific interpretation. In addition, I have argued against a syntactic incorporation analysis of the caseless objects. Instead I follow de Hoop (1996) in suggesting that the bare object receives a *weak* or default case within the VP.

Notes

1. This sentence is completely grammatical if the indefinite object is interpreted as focused. The same comment holds for (7b).
2. Thanks to Stanley Dubinsky for pointing this out.

3. See Section 4.2, Enç (1991).
4. This is noted by Enç (1991)
5. Borer (1994) and Ramchand (1997) provide an analysis with two different structural positions for the direct object which correlate with the aspectual properties of the predicate. EArmenian case-marking, however, is not related to the aspect of the predicate (Megerdooimian 1999).

References

- Borer, Hagit. 1994. "The Projection of Arguments". In *Occasional Papers in Linguistics* 17, E. Benedicto and J. Runner (eds.). GLSA, University of Massachusetts, Amherst.
- Cinque, Guglielmo. 1993. "Null Theory of Phrase and Compound Stress". *Linguistic Inquiry* 24:239-297.
- Diesing, Molly. 1990. *Indefinites*. Cambridge, Mass.: MIT Press.
- Enç, Murvet. 1991. "The Semantics of Specificity". *Linguistic Inquiry* 22:1-25.
- Hoop, Helen de. 1996. *Case Configuration and Noun Phrase Interpretation*. New York, NY: Garland Publishing.
- Karimi, Simin. 1996. "Case and Specificity: Persian *râ* revisited". *Linguistic Analysis* 3.4:173-194..
- Kornfilt, Jaklin. 1997. *Turkish*. New York: Routledge.
- Kural, Murat. 1992. "Properties of Scrambling in Turkish". Ms., University of California Los Angeles.
- Mahajan, Anoop. 1990. *The A/A-bar Distinction and Movement Theory*. Doctoral dissertation, MIT.
- Megerdooimian, Karine. 1999. "Projection of Direct Objects: Case-Assignment and Semantic Interpretation". Ms., University of Southern California, Los Angeles.
- Milsark, Gary. 1977. "Toward an Explanation of Certain Peculiarities of the Existential Construction in English". *Linguistic Analysis* 3:1-29.
- Pesetsky, David. 1987. "Wh-in-Situ: Movement and Unselective Binding". In *The Representation of (In)definites*. Eric J. Reuland and Alice G.B. ter Meulen (eds.). Cambridge, Mass.: MIT Press.
- Potsdam, Eric. 1999. "A Syntax for Adverbs". In *Proceedings of WECOL 98*, California State Univ, Fresno.
- Ramchand, Gillian C. 1997. *Aspect and Predication: The Semantics of Argument Structure*. Oxford: Oxford University Press.
- Tamrazian, A. (1994). *The Syntax of Armenian: Chains and the Auxiliary*, Doctoral dissertation, University College London.
- Travis, Lisa. 1991. "Derived Objects, Inner Aspect and the Structure of VP". In *Proceedings of the North Eastern Linguistics Society (NELS) 22*. Amherst: University of Massachusetts, GLSA.