

WACKERNAGEL'S LAW IN CLASSICAL ARMENIAN

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Classical Armenian displays a curious type of subordinate clause formation characterized by the addition of a cliticized anaphoric pronoun to the end of the first constituent within the subordinate clause. Meillet (1897-1898) first proposed that this process was an instance of Wackernagel's Law, which encompasses a range of syntactic second-position phenomena in the world's languages. In this paper I survey the distribution of Wackernagel clauses in Armenian, and provide an account for their behavior within the framework of current syntactic theory. More specifically, I show that the constraints on what elements may serve as host for the clitic and where the finite verb and adverbs in the subordinate clause may surface follow naturally from independently motivated principles of recent generative syntactic theory.

INTRODUCTION: WACKERNAGEL'S LAW PHENOMENA

The term "Wackernagel's Law" (WL) describes a set of cliticization processes observed in various Indo-European languages, most notably Sanskrit, Greek, and Hittite, wherein cliticized elements regularly appear in the second position of a clause or sentence (for detailed accounts of WL in Indo-European, one may consult Wackernagel (1892), Hale (1987), Garrett (1990), and Watkins (1992)). Recent work such as Halpern (1992) has shown that second-position clitics are not confined to Indo-European, however, but are quite commonplace among the languages of the world. WL, then, is not an idiosyncrasy of the Indo-European proto-language preserved by historical chance in some of its daughter languages, but rather a result of the workings of universal syntactic principles. In this paper we consider what appears to be a mani-

festation of WL in Armenian, namely the cliticized subordinate (normally relative) clauses I will call “Wackernagel clauses” (WC) that we observe in classical Armenian.

1. Classical Armenian Wackernagel Clauses

The classical Armenian WC has long been a source of interest to Armenian philologists, who to date have been unable to provide a satisfactory description of the conditions in which it occurs, or the factors determining its curious behavior. Meillet (1897-1898:24-25) states that “the [definite] article is placed immediately after the first independent accented word or group of words, whatever they may be, following the relative pronoun”; Adjarian (Ačaryan 1954:439) adds that “sometimes the antecedent adjacent to the relative pronoun *or* is emphasized, in which case the definite articles $\{s, d, n\}$ are placed on the word immediately following *or*”. Minassian, in his admirably comprehensive survey of the situations in which WC’s occur, states that “the first accented word or independent term in a subordinate relative clause often takes one of the three articles, on the condition that the word immediately following the relative pronoun is not a preposition, conjunction, or interjection” (1981:100); furthermore, when the main clause is postposed or the antecedent in the main clause is absent, the subordinate clause normally takes the WC clitic (144, 149), and WC’s do not occur with resumptive pronouns (135-6). In this paper I argue that the clitic is a reduced form of the demonstrative pronoun which right-adjoins to a topicalized constituent that has raised into AgrSP within a subordinate clause. Independently motivated principles of X-bar theory governing the movement of syntactic constituents (q.v. Cowper (1992:139)) constrain the set of elements that may move into AgrSP and the behavior of adverbs and the finite verb, thereby producing the surface distribution of the WC.

1.1. *Basic Syntactic Properties of Classical Armenian*

Before considering the WC itself, I would like to establish some basic properties of classical Armenian syntax. According to Adjarian (1909), classical Armenian had basic SVO word order, exemplified in (1):

- (1) *isk na ainoyr z-nšan tērunakan xač'-i-n*
 so he took acc-sign divine cross-gen-the
 ‘so he took the sign of the divine cross’ [Agat’angelos, ed. Tēr Mkrtč’ean-Kanayeanč, p. 813.1]

Others, such as Meillet (1913) and Campbell (1991), assert that classical Armenian had free word order. Meillet (1913:120) states, for example, that “the order of words in the sentence is free. The subject can come before or after the finite verb, as can the object and the other elements”. Evidence for this viewpoint comes from examples such as the following (note that Armenian is a pro-drop language, i.e. subject pronouns may be omitted):

(2) V O S

Ew tanġec'in z-na tasn ayr
and tortured acc-him ten man
'And ten men tortured him' [Agat'angelos 74.2]

(3) V S O

Yaynžam mecac'oyc' yoyž t'agawor-n z-Trdatios
then honored greatly king-the acc-Tiridates
'Then the emperor greatly honored Tiridates' [Agat'angelos 46.1]

(4) V_{intransitive} S

Xatac' gnac' t'agawor-n i kotman-s Hay-oc'
ran went king-the to region-accpl Armenian-genpl
'The king hastened to the land of the Armenians' [Agat'angelos 47.2]

(5) O V

mecamec pargew-s k'rm-ac'-n šnorhēr
splendid gift-accpl priest-datpl-the gave
'he gave splendid gifts to the priests' [Agat'angelos 22.2]

Subordinate clauses may also have various surface word orders:

(6) relative clauses

(ai) V O

or arar z-erkin-s ew z-erkir
who made acc-heaven -accpl and acc-earth
'who made heaven and earth' [Agat'angelos 813.4]

(aii) V S

z-or egit Satanay iwr gorcaki c'
acc-who found Satan his accomplice
'who Satan made his accomplice' [Elišē, ed. Tēr Minasean, p. 6]

(bi) O V

or erewel-eō-k'-n z-anerewoyt'-n gušakē
who visible-instr-pl-the acc-invisible-the presages
'who presages the invisible by visible means' [Elišē 4]

(bii) S V

z-or paštōneayk'-n ambarštut'-ean nora xratec'in
 acc-which ministers-the impiety-gen his advised
 'which the ministers of his impiety had advised' [Elišē 11]

(7) adverbial clauses

(a) S V_{intrans}

ur oč' anjrew-k' iĵan-en
 where no rain-pl fall-3pl
 'where no rains fall' [Elišē 103]

(b) V_{intrans} S

ur bazmac'aw yanc'aworut'iwn
 where increased transgression
 'where transgression increased' [Elišē 38]

(c) V O

ur ayrec'-in z-Antoninos
 where burned-3pl acc-Antoninos
 'where they had burned Antoninos' [Sebēos, ed. Abgaryan, p. 143]

O V

k'anzi z-amenayn t'snaman-s yačaxec'er
 because acc-all insult-accpl you multiplied
 'because you have multiplied all these insults' [Agat'angelos 68.1]

As we shall see later, however, the permutations of word order in WC's are more constrained.

One might be led by the data in (1-7) to accept Meillet's theory that classical Armenian had free word order. I assume, however, that all languages have a single underlying word order, which may have diverse and complex surface manifestations resulting from various movement processes, such as the ones we are considering in this paper. The reasons behind this assumption are too complex to enter into here; nevertheless, I will attempt to show that assuming basic SVO word order for classical Armenian allows us to account for certain aspects of the behavior of WC's.

1.2. *Deictic Clitics*

The primary morphological characteristic that differentiates the WC from a normal subordinate clause is the presence of one of three clitics suffixed to the first major constituent within the relative clause. These clitics have an independent existence as deictic demonstrative pronouns, illustrated in (8):

- (8) *mard* 'man'
 level 1 *mard-s* 'this man (by me)' (> modern Armenian 'my man')
 level 2 *mard-d* 'this man (by you)' (> 'your man')
 level 3 *mard-n* 'that man (over there)' (> 'the/his man')

As mentioned in (8), these deictic clitics develop possessive semantics in modern Armenian, and the level 3 clitic is also used as the definite article. In this sense the classical Armenian state of affairs represents an intermediate stage in a process well-attested in other languages, such as Greek, German, English, and various Romance and Scandinavian languages, wherein a demonstrative pronoun develops into a definite article.

Syntactically speaking, the clitic must agree in deixis with its antecedent in the main clause:

- (9) *ays* *uraxut'iwn*, *or* *im-s* *ē*
 this¹ happiness which mine-cl¹ is
 'this happiness which is mine' [John 3:29]
- (10) *z-ayr-d* *bžišk*, *or* *z-nšan-s-d* *airnē*
 acc-man-this² doctor who acc-miracle-accpl-cl² does
 'this medicine man, who works miracles' [Movsēs, ed. Abelean-Yarut'iwnēan, p. 156.1]
- (11) *or inj* *lsē*, *lsē* *aynmik`* *or* *z-is-n* *aṛak'eac`*
 who me.dat listens listens that³ which acc-me-cl³ sent
 'he who listens to me listens to him who sent me' [Luke 10:16]

Given these anaphoric properties, this clitic must by definition be pronominal. Based on these considerations, I assume that the clitic element in WC's is a reduced pronoun which shares the deictic properties of its antecedent.

1.3. *Resumptive pronouns*

Interestingly, resumptive pronouns cannot occur in WC's (Minassian (1981:135)). According to Hewitt (1978:119), classical Armenian [optionally] employs resumptive pronouns when "the item raised [out of the relative clause] originally functioned as anything other than subject or direct object of its clause", in order to "recapitulate its role within that clause". Consider the sentences in (12-15), where the resumptive pronouns have been underlined:

- (12) *kin mi, oroy dustr iwr neteal ēr y-aysoy p̄tcoy*
 woman a whose daughter her plagued was by-demon unclean
 ‘a woman, whose daughter was plagued by an unclean spirit’ [Mark 7:25]
- (13) *ēr t’agaworazn mi, oroy ordi nora hiwand kayr*
 was prince a whose son his ill was
 ‘there was a prince whose son was ill’ [John 4:46]
- (14) *ayr mi, y-or-um ays p̄t̄c goyr i nma*
 man a in-who-loc demon unclean was in him
 ‘a man, in whom there was an unclean spirit’ [Mark 1:23]
- (15) *mi utic’ēk’ yaydm caṛoy z-or*
 prohib eat from-that tree acc-which
patuirec’i č’-utel i dmanē
 ordered-1sg neg-eat from that
 ‘do not eat from that tree from which I have ordered you not to eat’
 [Agat’angelos 75]

Though Hewitt’s analysis of the conditions in which classical Armenian employs resumptive pronouns appears to be basically correct, there are some exceptions, as in (16), where the resumptive pronoun functions as a direct object:

- (16) *z-or hamarec’an kaxardel z-sa kananc’*
 acc-who thought-3pl bewitch acc-him wife.-genpl
zarmic’n Aždahakay
 descendant.-gen.-the Aždahak.gen
 ‘whom it was thought the wives of the descendants of Aždahak had bewitched’ [Movsēs 192.14]

In addition, resumptive pronouns may occur in WC’s, contrary to Minassian’s generalization:

- (17) *or-oc’ nmay-n z-ayn šnorheal ēr getec’kut’iwn*
 who-genpl him-cl³ acc-that³ given was beauty
 ‘who had given her that beauty’ [Agat’angelos 111.3]

Unlike the standard resumptive usage, the WC can also occur with subjects and direct objects:

- (18) subject
or inj lsē, lsē aynmik` or z-is-n aṛak’ēac’
 who me.dat listens listens that³ who acc-me-cl³ sent
 ‘he who listens to me listens to him who sent me’ [Luke 10:16]

(19) object

i miji jerum kay z-or duk'-n oč' gitēk'
 in middle your stands acc-who you-cl³ not know
 'among you stands one whom you do not know' [John 1:26]

Though the general lack of resumptive pronouns in WC's might lead us to suspect that WC clitics are actually reduced resumptive pronouns, the existence of sentences such as (17), the occurrence of WC's with raised subjects and direct objects, and the existence of WC clitics in adverbial subordinate clauses (which do not raise arguments) strongly indicate that WC clitics must have some other origin.

1.4. *Clitic Hosts*

Now that we have discussed the nature of the WC clitic, let us examine the constituents to which it can attach. The seminal work of Minassian (1981) and my own research on the classical corpus suggest that the WC clitic normally attaches to maximal projections (or XP's, in current syntactic terms), such as a noun phrases (NP's) or prepositional phrases (PP's), but it may also attach to the negative *oč'* and to finite verbs, both of which are heads:

(20) Noun Phrase¹

(a) [Adj-full N]

or čšmarit astuac-n ē
 who true god-cl³ is
 'who is the true god' [Eznik 2.10]

(b) pronoun

oč' ok' karē z-ayd nšan-s aṛnel z-or du-d aṛnes
 no one can acc-this² sign-accpl do acc-which you-cl² do
 'no one can do these signs that you do' [John 3:2]

(c) topicalized subject

i miji jerum kay z-or duk'-n oč' gitēk'
 among you-gen stands acc-who you-cl³ not know
 'among you stands one whom you do not know' [John 1:26]

¹ It is difficult to determine whether the WC clitic actually adjoins to full NP's, or simply to N's, because lexical nouns often take the definite article for independent reasons. Consequently, the only situation where we could clearly establish that an NP was serving as the clitic host within a WC would involve pronouns, which do not otherwise take the definite article. Unfortunately, pronouns do not occur with adjectives or any other components of NP's, so we cannot prove that NP's can serve as host for WC clitics. In fact, the only case where the clitic clearly adjoins to an XP involves PP's.

(d) topicalized object

or inj lsē, lsē aynmik` or z-is-n arak'eac`
 who me listens listens that³ who acc-I-cl³ sent
 'he who listens to me listens to him who sent me' [Luke 10:16]

(21) Prepositional Phrase

Petros ew or and nmay-n ēin
 Peter and who with him-cl³ were
 'Peter and those who were with him' [Luke 9:32]

(22) Adjective (Phrase)

noc'a, or artak'in-k'-n en
 those dat who outside-pl-cl³ are
 'for those who are outside' [Mark 4:11]

or aynč'ap` hzōr ew imastun-n ēr
 who so strong and wise-cl³ was
 'who was so strong and wise' [Eznik 2.6]

(23) Adverb

z-or ayžm-n un-is
 acc-who now-cl³ have-2sg
 'he whom you now have' [John 4:18]

(24) Negation

- (a) *du-k` erkir pagan-ēk` or-um oč'-n git-ēk`*
 you-pl earth bow-2pl who-dat not-cl³ know-2pl
 'you worship what you do not know' [John 4:22]²

minč` oč'-n gitēin z-yanc'an-s iwreanc`
 while not-cl³ knew-3pl acc-fault-accpl own
 'while they did not know their faults'

(b) proclitic to verb

i miži jer-um kay... or-um č'-em-n aržani
 in middle you-gen stands who-dat neg-am-cl³ worthy

et'ē lucic` z-xrac'-s kawš kac` nora
 that untie acc-thong-accpl shoe gen.pl his
 'among you stands one...the thongs of whose sandals I am not
 worthy to untie' [John 1:26]

² N.B. Sentence (24a) shows a type of ECM (Exceptional Case Marking) construction, wherein the relative pronoun, which is properly part of the subordinate clause, receives its case from the main clause verb: *erkir paganēl* 'worship' assigns dative case, whereas *gitel* 'know' assigns accusative case (cf. sentence (19)).

(25) Verb

es em, or xaws-im-s and k'ez
 I am who speak-1sg-cl¹ with you
 'I who speak to you am he' [John 4:26]

The clitic often attaches to finite verbs, including forms of *linel* 'be', but when *linel* serves as an auxiliary in periphrastic tenses, the clitic normally attaches to the non-finite verb, and the auxiliary follows the clitic (Minassian (1981: 133)):

- (26) *ekn i Nazarēt', ur sneal-n ēr*
 came to Nazareth where grown up-cl³ was
 'he came to Nazareth, where he had been grown up' [Luke 4:16]

Minassian lists one counterexample:

- (27) *orpēs ew ēr-n cneal*
 as indeed was-cl³ born
 'as he had been born' [Cyril 51]

I have found no other counterexamples to Minassian's generalization; I consider why it holds in section 2.

When the host XP contains two coordinated elements, the clitic normally attaches to the first member (28), but it may attach to both (29), and very rarely to only the second member (30):

- (28) *du hastatun kac' y-or usa-r-d ew hawatarim eter*
 you firm stay in-what learn-2sg-cl² and believed were
 'continue in what you have learned and have firmly believed' [2 Timothy 3:14]
- (29) *or xawsi-mk'-s ew lse-mk'-s*
 who speak-1pl-cl¹ and listen-1pl-cl¹
 'we who are speaking and listening' [T^ornean 2 480]
- (30) *z-or yawdeal ew useal-d es*
 acc-who pieced and learned-cl² are
 'which you pieced together and learned' [Agat'angelos 38.3]

According to Minassian (1981:140) the third type is "abnormal" and postclassical.

Another important aspect of the behavior of WC's is that the finite verb always occurs immediately before or after the clitic, as observed by Weitenberg (1992:2); that is to say, it either serves as host for the clitic,

or directly follows it when some other constituent is the host. This distribution may be observed in the following examples:

(31) V2: verb serves as host

(a) *es em, or xaws-im-s and k'ez*
 I am who speak-1sg-cl¹ with you
 'I who speak to you am he' [John 4:26]

(b) *i paterazm-i-s, or neṭē-s z-mez*
 in war-loc-this which afflict-cl¹ acc-us
 'in this war which afflicts us' [Agat'angelos 81]

(32) V3: verb immediately follows clitic

mi pṭcesc'en z-banak-n, y-or es-d iḡanem
 prohib. defile. 3pl acc-camp-cl³ in-which I-cl³ dwell
 'that they may not defile their camp, in which I dwell' [Numbers 5:3]

When a periphrastic verb does not host the clitic, the non-finite verbal element normally appears after the finite element, as in (33):

(33) *or i veray-n ēr hasanel-oc'*
 which in top-cl³ was arrive-futppl
 'which was to happen' [Agat'angelos 281]

This is not always the case, however:

(34) *amenek'ean, or nmay-n hawaneal ēin*
 all who him-cl³ agreed were
 'all who agreed with him' [Agat'angelos 5.57]

(35) *or i nmay-n cneal ē*
 who in her-cl³ born is
 'that which is conceived in her' [Matthew 1:20]

Cases like (34) and (35) are not problematic for Weitenberg, who states simply that the "verb" occurs immediately before or after the clitic. I would make the stronger claim, though, that it is the *finite* verb which shows this behavior, which makes (34-35) problematic. I attempt to account for this difficulty in section 2.

Though Weitenberg's observation concerning the V2 behavior of verbs in WC's is overwhelmingly born out in the classical corpus, there are nevertheless some exceptions, such as in (36-37):

(36) *i miḡi jerum kay z-or duk'-n oč' gitēk'*
 in middle your stands acc-who you-cl³ not know
 'among you stands one whom you do not know' [John 1:26]

- (37) *aylazg imn ir-k' linin,*
 other certain thing-pl are
orpēs i noc'an-ē-n isk eleal ē ban-n
 as in them-abl-cl³ indeed risen is word-the
 'certain other things may be, as the word arose from them' [Eznik 41.16-17]
- (38) *or en ibrew z-k'ez-d*
 who are like acc-you-cl²
 'who are like you' [Agat'angelos 33]
- (39) *orpēs ew aṛ jez-d isk tesanēi*
 as and to you-cl² indeed saw. 1sg
 'as I saw chez vous' [Agat'angelos 149]
- (40) *or z-is-n oč' xndrēin*
 who acc-me-cl³ not sought. 3pl
 'who were not seeking me' [Isaiah 65.1]
- (41) *z-or du-k'-n c'noreal paštēk'*
 acc-which you-pl-cl³ crazily honor
 'which you honor' [Agat'angelos 34]
- (42) *z-or du-k'-n and is ararēk'*
 acc-which you-pl-cl³ with me did
 'which you did with me' [Agat'angelos 126]
- (43) *orpēs nay-n lin ēr hot-ov srbut' eamb*
 as he-cl³ full was smell-instr holiness. instr
 'as he was full of the smell of holiness' [Agat'angelos 214]

Sentence (36) differs in placing the negative *oč'* between the clitic and the verb, whereas by Weitenberg's principle we might expect the negative to occur after the verb. In Armenian, however, negation must *always* precede the verb; a sentence such as (44) would be ungrammatical:

- (44) **duk' gitēk' oč'*
 you know not
 'You do not know'

It appears that negation in classical Armenian was already well on its way to its current form in modern literary Armenian, where it is always proclitic to the verb in the reduced form *č'*, which in fact is already fairly

common in the classical period. We will consider the behavior of negation with respect to WC's further in section 2.

Sentence (37) differs in placing the adverb *isk* between the clitic and the verb. This may not actually be a WC, if the clitic is serving to resolve the vowel hiatus that would otherwise exist between *noc'anē* and *isk*; the definite article *-n* is often used for this purpose in modern Armenian. The exceptional behavior of (37) may also be related to the fact that adverbs sometimes do not "count" in the computation of syntactic position within the WC. Consider the cases in (45-46):

- (45) *ac-in ai P'arisec'i-s-n z-na, or erbemn koyr-n ēr*
 brought-3pl to P's-acc-the acc-he who formerly blind-cl was
 'they brought to the Pharisees he who had formerly been blind'
 [John 9:13]

- (46) *or miangam merjecan-n*
 who ever touched-cl³
 'and who ever touched [it]' [Mark 6:56]

In other words, it appears that adverbs may be freely inserted before or after the topic-clitic complex within a WC, without affecting the established sequence of constituents. We will consider why this might be so in section 2.

Despite the apparent exceptions described above, Weitenberg's generalization nevertheless appears to be valid. It is important to note, however, that this generalization holds only for WC's; normal relative clauses apparently do not show the same restrictions on the placement of the verb. In the following section, I propose an analysis of Armenian WC's, based on current syntactic principles, which hopefully will also allow us to understand the exceptional behavior of negation, periphrastic verbs, and adverbs.

2. Analysis

In the preceding section, I established the following characteristics of Armenian WC's:

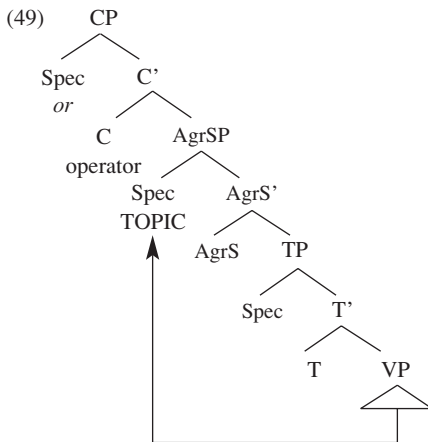
- (47)
- (a) the clitic is a anaphoric pronoun, that agrees in deixis with its antecedent in the main clause.
 - (b) the clitic attaches to the first constituent within the relative clause, which may be a noun, verb, adjective, adverb, negative, or prepositional phrase.

- (c) the finite verb normally occurs immediately before or after the clitic.
- (d) adverbs may be inserted before or after the cliticized host without affecting the placement of the verb.

In this section, I develop an analysis of the syntactic behavior of WC's based on independently motivated principles of current syntactic theory. Throughout this section I assume the following fundamental principles:

- (48)
- (i) subjects, objects, and verbs originate inside the VP (the VP-internal subject hypothesis; cf. Koopman (1984))
 - (ii) syntactic constituents do not move out of their base positions unless they have features that must be checked (Chomsky (1992))
 - (iii) heads can not raise over heads (the head movement constraint; cf. Baker (1988))
 - (iv) heads can only move into head positions, and maximal projections can only move into specifier positions (the structure preservation constraint; cf. Emonds (1976), Cowper (1992:139))
 - (v) sentences contain the maximal projections CP-AgrSP-TP-NegP-VP, in that order (Pollock (1989), Chomsky (1992); in section 2.3. I provide independent justification for this structure based on the behavior of adverbs in Armenian).

I assume that the clitic is base-generated as the head of an XP adjoined to AgrSP, for reasons to be discussed in section 2.4. In order to account for (47b), I propose that WC's raise a topicalized constituent from within the VP into Spec AgrS, as schematized in (49):



In the following sections, I examine the various components of this analysis: 2.1 deals with the nature of the topic position and what constituents can raise into and adjoin to it; 2.2 explores the behavior of verbs and negation; 2.3 employs the distribution of adverbs to determine the structural position of the topic and the verb; and 2.4 investigates the syntactic origins of the clitic and constraints on its movement.

2.1. *The topic position*

I have suggested that in classical Armenian the specifier position of AgrSP is not strictly a subject position, but rather a topic or focus position, into which an XP serving as topic in a clause raises in order to check off some topicalization feature³. We must assume this in order to account for the fact that object NP's and PP's as well as subjects can occupy Spec AgrSP. If this were an argument (A) position that assigned a thematic role to subjects, then objects raising into this position would end up with two thematic roles, because they would already have received an object theta role in Spec AgrOP⁴. Since arguments cannot have more than one thematic role in a clause, we must assume that Spec AgrSP is a non-argument (A') position, which does not assign any thematic roles. Following Jonas (1992), I assume that Spec TP is actually the position which assigns thematic roles to subjects, and where subjects check off their agreement features. When the subject is also the topic of a WC, it raises from Spec TP into Spec AgrSP; otherwise it remains in Spec TP and whatever XP is the topic of the clause raises into Spec AgrSP⁵.

Since Spec AgrSP is a specifier position, only maximal projections (NP's, PP's, VP's⁶, etc.) can move into it; thus, WC's where the clitic attaches to the first word of an XP, as in (50), are ruled out:

³ I assume that Spec AgrSP contains a topicalization feature, because otherwise movement into this position would be unmotivated within the minimalist framework. This also predicts that Spec AgrSP will always be occupied, though, which appears to be true in Icelandic, where the subject is always the topic unless some other constituent is being focused (Thráinsson (1992)), but not in WC's where the verb hosts the clitic, if my analysis is correct. At the moment I have no solution to this problem.

⁴ Chomsky (1989) proposes that objects receive their thematic roles and check their features in Spec AgrOP, which is situated immediately below TP. I have not included AgrOP in my diagrams because it is not directly relevant for the discussion in this paper.

⁵ I would expect clauses with a non-subject topicalized XP and an overt or WH-moved subject to violate the head movement constraint.

⁶ The fact that the VP may also serve as host for the clitic is paralleled in Old French; see Roberts (1992).

- (50) **Petros ew or and-ə nma ein*
 Peter and who with-cl³ him were
 'Peter and those who were with him' (cf. (21))

I have come across one counterexample, however:

- (51) *bayc' or zkni-n im gay*
 but who after-cl³ my comes
 'but he who comes after me' [Matthew 3:11]

This clitic may actually be the *-n* that serves to prevent hiatus configurations, however; a case of *-s* or *-d* attaching directly to a preposition would provide more solid evidence, since these are never used for liaison.

Note that this analysis of Spec AgrSP as a topic position implies that heads such as verbs cannot be topicalized in this way. In order to address the fact that verbs apparently can be topicalized in WC's, I propose that the whole AgrSP is a topicalization position; that is, AgrSP also contains some topicalization feature. This analysis implies that all verbs which overtly raise to AgrS are topics, whereas verbs which remain inside the VP or in T are relatively unstressed.

2.2. *Verb movement and negation*

As we have seen, the behavior of PP's (e.g. (21), (50)) suggests that the WC clitic is adjoining to a maximal projection in a specifier position, though it is not possible to corroborate this assumption with other XP's (see footnote 1). Verbs and negation pose a problem for this analysis, because both behave like heads in classical Armenian. In this section I examine the general behavior of these constituents in Armenian, and attempt to account for their behavior in WC's.

We have reason to suspect that the verbs (both finite and non-finite) that host the WC clitic are heads and not XP's. Current theory dictates that finite verbs must raise to the head positions T and then AgrS in order to check their tense and agreement features respectively, and therefore must be heads themselves, because only heads can move into head positions. This theory of verb movement directly accounts for the fact that the finite element of periphrastic verbs normally occurs immediately after the clitic, and the non-finite element follows (cf. 33): in this analysis, the finite component raises to AgrS and receives tense and agreement features, while the non-finite element remains within the VP, and therefore does not receive inflection. This analysis also entails that finite verbs cannot move into Spec AgrSP to host the clitic, because finite

verbs are heads. Given the behavior of PP's and finite verbs in WC's, then, we are forced to assume that the WC clitic is able to adjoin to both specifier and head positions. This makes our theory much less constrained, because it is not clear why and when the clitic should attach to AgrS instead of Spec AgrS. In 2.4. I propose that the clitic attaches to the verb when no XP has raised into topic position.

We might still suppose that in cases such as (26), where the non-finite member of a periphrastic verb hosts the clitic, the whole VP is raising, because the non-finite verb does not need to check tense or agreement features⁷. The following sentences disprove this idea, however:

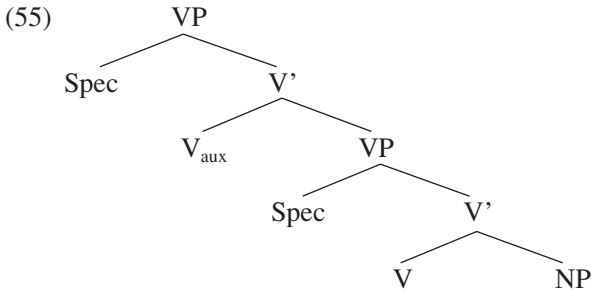
- (52) *ur žoʔovel-oc'-d es z-amenayn ardar-s*
 where gather-futppl-cl² are. 2sg acc-all right-accpl
 'where you will gather all the righteous' [Agat'angelos 106]

- (53) *or matnel-oc'-n ē z-is*
 who betray-futppl-cl³ is acc-me
 'who will betray me' [Matthew 26.46]

- (54) *or p'rkēl-oc'-n ēr z-Israyēl*
 who save-futppl-cl³ was acc-Israel
 'who would redeem Israel' [Luke 24.21]

In each case, we have the order [relative pronoun]-[non-finite verb]-[clitic]-[finite verb]-[direct object]. If the whole VP were raising into Spec AgrSP to host the clitic, we would expect the object to come before the clitic, because it is part of the VP. Since it occurs after the clitic, we must assume that only the non-finite verbal head is actually hosting the clitic, and the rest of the VP remains in situ. This analysis raises another problem, though: if the clitic can only adjoin to constituents within AgrSP (i.e. Spec AgrSP or AgrS), as I propose below, then the non-finite verb in (52-54) must be in AgrS, which at first glance would seem to entail that the finite verb is in T or V. If this were the case, however, the finite verb would not be able to raise to AgrS in order to check its agreement features, whereas we can see in (52) that the finite verb clearly has 2d singular agreement. I propose that in classical Armenian periphrastic verbal constructions such as the perfect and pluperfect, the auxiliary verb is base generated in a VP immediately above the VP containing the lexical verb, as in (55):

⁷ The fact that the non-finite member of periphrastic verbs has two distinct forms, past and future, might make us think that these must raise to T in order to check off tense features, but it is not clear to me how this would work, because the finite verb will have already raised through T to check off its own tense features, which would satisfy the features in T and therefore prevent further constituents from raising into T.



In order to check its tense and agreement features, the V raises and left-adjoins to V_{aux} , and this adjunction structure then raises into T and AgrS. In WC's where no XP raises to Spec AgrSP and a periphrastic verb complex has raised into AgrS, the clitic attaches to the first member of the adjoined structure, the non-finite verb. This appears to be the normal way that the clitic attaches to adjoined structures, as we have seen in (27) and will support with evidence from negated verbs below. Though my adjunction analysis for periphrastic verbs accounts for most of the data, it also raises several problems. First of all, it is not clear why the V should left-adjoin to V_{aux} , but right-adjoin to Neg (see the discussion of negation below). Secondly, although it can account for the fact that the unmarked order for periphrastic verbs is V- V_{aux} in normal clauses but V_{aux} -V in WC's with a topicalized XP, it also predicts that in the former cases no elements except clitics will ever intervene between V and V_{aux} , because they form an adjunction structure, whereas in the latter cases other constituents may come between V_{aux} and V, because they are not adjoined. This is an empirical question which I have not yet been able to pursue. Finally, I do not understand how we prevent the non-finite verb from surfacing with inflection if it moves into AgrS as part of an adjunction structure with the auxiliary verb.

It is also interesting that the clitic never attaches to the finite member of periphrastic verbs, though it freely attaches to simple finite verbs, including forms of *linel* 'be', which also serve as auxiliaries in compound verbs. I have no explanation for this fact.

As we have already indicated, the behavior of verbs in WC's indicates that the clitic can adjoin to heads as well as XP's; I will assume for reasons to be discussed in 2.4 that the clitic can only attach to heads which are in AgrS, the normal position of the finite verb. If this is the case, we should expect that overt subjects will normally follow the verb-clitic

complex directly, because the standard subject position, Spec TP, is located directly below AgrS. Though this prediction is hard to test because Armenian is a pro-drop language, I have found the following counterexample:

- (56) *yorum koč'eac'-n z-na Abgar*
 when called-cl³ acc-him Abgar
 'when Abgar called him' [Movsēs 150.5]

In this case we must assume that the subject *Abgar* has remained in the VP, and the object *z-na* has raised to Spec AgrOP. It is not clear to me why the subject would remain in the VP in this sentence, however; VP-internal subjects are normally indefinite, whereas individuals must be definite (cf. in some dialects of modern Armenian personal names always take the definite article).

The negative *oč'* also functions as a head in Armenian, and can host the clitic. One might argue that in the cases where the negative hosts the clitic (e.g. (24a)), the whole NegP has raised into Spec AgrSP, but this is contradicted by a number of other facts. For example, as a general rule only heads can cliticize, and maximal projections cannot; the fact that *oč'* often cliticizes to *č'*- would seem to indicate, then, that the negative is a head rather than a maximal projection. The cliticization of the negative also raises problems in sentences like (24b) and (36): in the former, it seems to raise together with the verb into the subject position, and in the latter, it appears between the clitic and the finite verb. I propose that these facts reflect the normal interaction between Neg and V in classical Armenian, in which the verb (when negated) raises and adjoins to Neg, the head of NegP. This adjunction structure then raises to T and AgrS like any other finite verb. In cases like (24b), there is no topicalized XP in Spec AgrSP, so the clitic adjoins to AgrS; in (36), the Neg-V complex is still in AgrS, but an XP has raised to Spec AgrSP, and serves as host for the clitic. Our adjunction analysis also accounts for the fact that the negative always immediately precedes the finite verb; if Neg were free to raise independently of V, we would expect to find cases where material intervened between the negative and the verb.

I suggest that cases like (24a), where the clitic intervenes between the negative and the verb, result from the behavior of the clitic when it attaches to adjunction structures. As we have already seen in cases like (27), the clitic normally attaches to the first member of conjoined V's; when an adjunction structure consisting of Neg + V raises into AgrS the

same process applies, and the clitic attaches to the first element, which is the negative. Without this analysis, we would also have to say that in (24a) the negative has raised to AgrS and the verb is in T or V, which in addition to predicting that the subject would be able to intervene between the clitic and the verb would also prevent the finite verb from raising into AgrS to check its agreement features.

2.3. *Adverbs*

The placement of adverbs in WC's is intriguing: they appear to freely intervene between the complementizer and the topicalized XP, and between the clitic and the verb, without affecting Weitenberg's generalization that the verb immediately follows the clitic (cf. (37) and Minassian (1981:143)). This distribution has interesting implications for our analysis, if we assume following Chomsky (1986) that adverbs can only adjoin to maximal projections. My analysis states that the topicalized XP is in Spec AgrSP, and the verb is in AgrS; pre-topic adverbs are not problematic, because we can simply say that they adjoin to Agr SP, but adverbs that appear between these two positions force us to assume that another maximal projection can intervene between the topic and the verb, because adverbs cannot adjoin to AgrS'. Before Pollock (1989) proposed dividing IP into AgrP and TP, this would have required assuming that the verb stayed in the VP, which would not allow for post-verbal subjects, as we get in (56). Given the articulated Infl structure I am assuming in this paper, we have to say that the verb raises overtly to T, and then raises covertly at LF to AgrS, in order to check its agreement features. We should expect, then, that the subject should be able to raise to Spec TP, producing the order [topic]-[clitic]-[adverb]-[subject]-[verb]. Since this order apparently does not occur, we might predict that in these sentences the subject is always either the topic, the element raised into the main clause, or indefinite (i.e. inside the VP). The following case does not fit any of these criteria:

- (57) *orpēs i noc'an-ē-n isk eleal ē ban-n*
 as in them-abl-cl³ indeed risen is word-the
 'certain other things may be, as the word arose from them' [Eznik 41.16-17]

In this case, the adverb *isk* occurs between the clitic and the verb, and the subject occurs after the verb, and is definite. I have no explanation

for this example, though again it is possible that the clitic here is actually serving to resolve the hiatus between the two surrounding vowels.

My analysis of the adverb facts raise several questions which at the moment I am unable to answer. First of all, Armenian has rich agreement, so I would expect that the verb would always raise overtly to AgrS, whereas it does not appear to in these clauses with adverbs. Secondly, I do not understand why we apparently do not get WC's of the type topic-clitic-adverb-subject-verb; perhaps this is due to the limited size of my data set. Perhaps it is due to some special characteristic of VP-internal subjects that I am not aware of.

2.4. *The clitic*

Now we turn to the question of the clitic, specifically where it originates in the syntax and what constrains the set of positions to which it adjoins. Given the diverse set of constituents that can host the clitic, I assume that it is base-generated as an adjunct to AgrSP and then attaches to the first constituent within AgrSP, rather than being base-generated already attached to its host and then raising into AgrSP. If the clitic attached to topicalized elements in their base position, we might expect to find cases where heads such as prepositions and the finite element of periphrastic and negated verbs would surface with the clitic, which is not correct. Such a theory is completely unrestrained in predicting what constituents can host the clitic. By assuming that the clitic is base-generated as an adjunct to AgrSP, we directly represent the fact that the clitic represents some kind of focus, whether it ends up attaching to an XP or a head; the inventory of hosts is constrained by principles governing topicalization, movement, and clitic attachment. The placement of the clitic follows naturally from the principle of attachment to adjunction structures that we established in 2.2, though it presents a bit of a problem in dealing with PP's. Perhaps we can say that the clitic attaches to an XP if it can, and when this is not possible it looks at the next level of structure. If there is no structure at all within Spec AgrSP, it attaches to AgrS.

In this way, interestingly, the clitic behaves like both an XP (when it adjoins to Spec AgrSP) and a head (when it adjoins to AgrS). This is only true if we assume that the clitic is adjoining to an already-occupied position and not moving into a vacant position, though. The latter hypothesis has been supported by Roberts (1992) and

Cowper (1992), two of the most recent works dealing with second-position phenomena; the only argument they provide, however, is that second-position elements tend to be syntactic heads (clitics, verbs, auxiliaries, particles), and heads occupy the second (linear) position within XP's, so that CP and IP heads would tend to show second-position behavior. Though this idea is appealing, it does not work well for Armenian WC's: given that the verb always appears immediately after the clitic (unless it is serving as the host), we would like to say that the clitic and the verb occupy immediately adjacent structural positions. Since verbs are heads, Roberts' and Cowper's claim that second-position clitics are heads would require at least one intervening specifier position between the clitic and the verb, which we might expect to be filled in at least some situations, thereby losing Weitenberg's generalization. Consequently, I have assumed the alternative possibility for Armenian WC's, namely that the clitic adjoins to its host.

3. Conclusions

In this paper I have argued through the example of WC's that classical Armenian syntax, though superficially quite variegated in its word order, is strictly constrained by independently motivated principles of phrase structure and movement. In particular, I have suggested that Armenian has underlying S V O word order, an articulated Infl structure, and a topicalization phrase, AgrSP, which can accommodate both topicalized XP's and heads. In Wackernagel clauses, a deictic clitic is adjoined to the topicalization phrase, and phonologically attaches to the first constituent within that phrase. Furthermore, I have proposed that negation and periphrastic verbal structures involve adjunction of a verb to an auxiliary verb or a negative. In (58) I have represented how this analysis would deal with a WC clause containing the sequence [PP]-[clitic]-[periphrastic negated verb]-[subject]-[object]:

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