(Negative) Concord and Head Directionality in Western Armenian

by

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B.A., Linguistics, University of California, Los Angeles (2007)

Submitted to the Department of Linguistics and Philosophy in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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Author Department of Linguistics and Philosophy September 6, 2013

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Certified by.....

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Abstract

This thesis focuses on concord structures found in Western Armenian. I label a structure as *concord* if two morphemes found in the same clause bear the same feature, yet only result in one scmantic interpretation of that feature. The main focus of the thesis is that of negative concord in Western Armenian. Other concord phenomena are also examined: complementizer and additive concord. I draw a parallel between all of these structures, demonstrating that they can be analyzed using the same system of Agreement of the relevant features. A striking similarity between all these concord structures is the optionality of the morphemes involved. Negative morphemes, complementizer heads, and additive markers are optional in Western Armenian.

These concord structures bring about some issues regarding head directionality. Western Armenian is a generally head-final language. Certain domains exhibit both head-initial and head-final possible structures. These are found in the complementizers and the adpositions of the language. The complementizer phrases (CPs) which contain more than one morpheme bearing the same feature, are comprised of one head final and one head initial morpheme. Either can be uttered without the other being realized, and both are possible in the same clause as well. Variation, in this case with regards to head direction, is usually studied across multiple languages or across phrase types within a single language; however, WA is a language where variation is seen within the same type of phrase. Western Armenian gives us insights into systems that usually only show one setting in any given language. In analyzing these novel patterns of variability I argue that unique stress and prosodic properties help me unlock these puzzles.

Thesis Supervisor: Norvin Richards Title: Professor of Linguistics

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Babug-i-s

'grandfather-GEN-1S.POSS'

To Kourken Khanjian

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List of Abbreviations

WA	Western Armenian
$\mathbf{E}\mathbf{A}$	Eastern Armenian
CA	Classical Armenian
NPI	negative polarity item
NC ·	negative concord
DN	double negation
NOM	nominative
\mathbf{ACC}	accusative
GEN	genitive
DAT	dative
ABL	ablative
INST	instrumental
CLASS	classifier
DEF	definite
INDEF	indefinite
POSS	possessive
NEG	verbal negation
CAUS	causitive
EVID	evidential
FUT	future
INF	infinitive
IMP	imperative
IMPFV	imperfective
PASS	passive
PERF	perfect
PERFV	perfective
PROG	progressive
PROH	prohibitive
SUBJ	subjunctive
1S	first person singular
28	second person singular
38	third person singular
1P	first person plural
2P	second person plural
3P	third person plural
01	
IPA	International Phonetic Alphabet
У	high front round vowel
j	high front glide
χ	voiceless uvular fricative
R	voiced uvular fricative
ſ	voiceless postalveolar fricative
3	voiced postalveolar fricative
t∫	voiceless postalveolar affricate
d_3	voiced postalveolar affricate

Chapter 1

Overview

This thesis focuses on concord structures found in Western Armenian. I label a structure as *concord* if two morphemes found in the same clause bear the same feature, yet only result in one semantic interpretation of that feature. The main focus of the thesis is that of negative concord, found in Chapter 3. The other concord phenomena, complementizer and additive concord are found in Chapter 4. I draw a parallel between all of these structures, demonstrating that they can be analyzed using the same system of Agreement of the relevant features.¹ A striking similarity between all these concord structures is the optionality of the morphemes involved. Negative morphemes, complementizer heads, and additive markers are optional in Western Armenian.

These concord structures bring about some issues regarding head directionality. Western Armenian is a generally head-final language. Certain domains exhibit both head-initial and head-final possible structures. These are found in the complementizers and the adpositions

(tun) dun katsi-*(r) 2S.NOM home went-2S 'You went home.'

(ii) Genitive/Possessive

(ku) kirk-*(ət)
2S.GEN book-2S.POSS
'your book'

 $^{^{1}}$ I do not take a stance of whether (i) and (ii) are the same or different phenomena compared with all the other concord structures in this thesis, nor if they should be labeled 'Agreement' or 'Concord'. See Baker (2008), Preminger (2011), Norris (2012) and references therein for discussion on these matters.

⁽i) Subject/Verb (pro-drop)

of the language. The complementizer phrases (CPs) which contain more than one morpheme bearing the same feature, are comprised of one head final and one head initial morpheme. Either can be uttered without the other being realized, and both are possible in the same clause as well. Variation, in this case with regards to head direction, is usually studied across multiple languages or across phrase types within a single language; however, WA is a language where variation is seen within the same type of phrase. Western Armenian gives us insights into systems that usually only show one setting in any given language. In analyzing these novel patterns of variability I argue that unique stress and prosodic properties help me unlock these puzzles.

The focus of Chapter 2 is to introduce a number of relevant facets of Western Armenian. This chapter serves as a resource for any questions that may arise about WA when reading Chapter 3 and Chapter 4. Therefore if the reader would like to jump directly to the majority of the theoretical bulk of the thesis they could skip Chapter 2. I start Chapter 2 with a general introduction to word order restrictions and headedness in §2.1. Then I move on to the nominal domain in §2.2, looking at number, specificity, case, and argument-drop. The next important topic is that of verbs, found in §2.3 and §2.4. Negation, most relevant for Chapter 3, is discussed in §2.5 and §2.6. The morphemes involved in the concord structures of Chapter 4 are presented in §2.7. *-ne* is one of a number of clitics utilized in WA. I examine these morphemes, their uses, their effects on word order, stress and meaning. Most of these particles have a wide range of uses. I use WA recorded conversations to understand the way these morphemes interact with other parts of a clause and with each other, in different environments, including questions, exclamatives, and negation. Discussion of headedness from §2.1 is continued in §2.8 with adpositions. I finish the chapter with a discussion of adjuncts.

Chapter 3 explores and analyzes the interactions of negative morphemes in Western Armenian. Western Armenian n-words (e.g. *nothing*, *no one*) morphologically containing the morpheme votf 'no', appear in the same clause as verbal negation and yield one negative meaning, i.e. Negative Concord (NC). Unlike most other languages that exhibit negative concord, in WA the verbal negative marker is completely optional in the presence of a negative subject or object. In languages like Russian (a strict NC language), n-words in either subject or object position require a verbal negative marker whereas other languages like Portuguese (a non-strict NC language) require verbal negation only with an object n-word. According to Zeijlstra (2004), verbal negation in strict NC languages carries no semantic negation whereas the verbal negation in non-strict NC languages does. I argue that WA is a case of a strict negative concord language with respect to the distribution of n-words and a non-strict NC language with respect to the negative feature carried by verbal negation, expanding the typology presented by Zeijlstra.

Along with the optionality of verbal negation with n-words in WA, a double negation meaning is possible with two verbal negative markers in the same phrase. I propose that the negative meaning in WA comes from verbal negation. When verbal negation is absent (in the presence of an n-word) a *covert* negative operator (Op_{\neg}) , gives the negative interpretation following the approach used by Zeijlstra (2004).

I have discovered a unique type of concord, which I analyze in Chapter 4, namely complementizer concord, demonstrated for example with the enclitic *-ne*, which seems to head a range of CPs and can mean {if, when, ever, or} depending on its environment. This morpheme sometimes co-occurs with a head initial complementizer in the same extended CP domain, resulting in the same interpretation as the phrase with only one of the C heads. CPs therefore seem similar to the negative phrases discussed above where multiple heads of the same category in the same clause yield one semantic realization of them. From complementizers I move on to concord involving additive markers and demonstrate how the same analysis can compositionally account for the meanings involved.

Chapter 2

Western Armenian Background

Western Armenian (WA) is one of several dialects of the Indo-European Armenian language family. WA is spoken by communities outside of present day Armenia in many of the major cities around the world by about a million speakers. Originating in what is today Eastern Turkey, the language has been in constant contact with Turkish for most of the past millennium, resulting in an interesting mix of Indo-European and Altaic structure. The sub-dialect from which the data came from is that of the Lebanese-Syrian Western Armenian spoken in the United States. The present day Standard dialect of WA is that of the Lebanese-Syrian dialect. Therefore the data presented is almost identical to the Standard variety of WA. Other sub-dialects might have slightly different properties and patterns, which I will not be examining. Eastern Armenian on the other hand is the official language spoken in present day Armenia. Both dialects originated from Classical Armenian, dating to the 5th century AD, but differ in all levels of language, from the number of phonemes to nominal and verbal morphology, as seen in (1) and (2) (Donabédian 1999).

Eastern Armenian

(1) Aramə sərdʒaran-um mi girk e kart-um Aram coffee.shop-LOC INDEF book BE.3S read-IMPFV 'Aram is reading a book in a coffee shop.'

Western Armenian

(2) Aramə sərdʒaran-in met∫ kirk mə gə-garta-gor
 Aram coffee.shop-GEN inside book INDEF IMPFV-read.3S-PROG
 'Aram is reading a book in a coffee shop.'

Armenian has a long written tradition since the creation of the Armenian alphabet, at which point Classical Armenian was the standard, in the 5^{th} century AD. A number of grammars have been compiled, mostly dealing with the written language.¹ This thesis strictly focuses on the present day spoken Western Armenian language.

WA is mostly an SOV language with loose restrictions on word order. It is not a strict head-final language as Japanese or Turkish; for example, CP complements follow their verbs. Verbs carry subject agreement for number and person, and the language is optionally *prodrop*. In common with verb final languages generally, Armenian is mostly postpositional and dominantly suffixing, both properties amply illustrated in the examples which follow. Both the specificity ∂/n and indefinite $m\partial$ articles follow their noun phrases. WA does not have any morphological gender markings on quantifiers, nouns, adjectives or pronouns. Case marking indicates the semantic role of an NP. The tense on verbs is either past or non-past. As for the order of possessives, the possessor is followed by the possessed, as in *Aram-in kirk-∂* 'Aram-GEN book-SPFC' "Aram's book."

The goal of this chapter is to present background information about the language that is relevant to understanding the examples throughout this thesis and their peculiarities. This chapter serves as a resource for any questions that may arise about WA when reading Chapter 3 and Chapter 4, the chapters dealing with Concord in WA. I start with a general introduction to word order restrictions and headedness in §2.1. Then I move on to the nominal domain in §2.2, looking at number, specificity, case, and argument-drop. The next important topic is that of verbs, found in §2.3 and §2.4. Negation, most relevant for Chapter 3, is discussed in §2.5 and §2.6. The morphemes involved in the concord structures of Chapter 4 are presented in §2.7. Discussion of headedness from §2.1 is continued in §2.8 with adpositions. I finish the chapter with a discussion of the structure of adjuncts.

¹Starting in the mid- 19^{th} century with Aydenian (1966).

A note on the data

All examples are aimed to reflect spoken speech. The examples throughout this chapter are not presented in the Armenian orthography nor in the traditional transliteration found in most Armenian sources, to emphasize that the examples are from spoken Western Armenian and not from the literary or written language. For simplicity I have omitted aspiration diacritics from the aspirated voiceless stops and affricates {p, t, k, ts, tf} and tie-bars for the four affricates of the language {ts, dz, tf, d3}. Western Armenian, unlike Eastern Armenian, does not have unaspirated voiceless stops as phonemes. Two other simplifications are the use of 'r' for what is usually an alveolar tap or trill and the use of 'e' and 'o' for the mid vowels, which according to Vaux (1998:16) are lax. Any non-Roman IPA symbol that are not found in the Roman orthography are listed in the List of Abbreviations found in the beginning of this thesis. As will be discussed, many different word orders are possible. For convenience most examples are verb final.

The Western Armenian data found in this thesis are mostly from two sources during the past few years, 2008-2013: from recordings of about 150 free-flowing conversations (~30 hours) usually between 2 or 3 native Western Armenian speakers at a time, some of which I transcribed and marked as needed, and from one-on-one elicitation sessions with around 40 native WA speakers with different lengths and number of sessions. I also gathered a few hours of data from a standup comedy recording (Berberian 2009). A few dozen examples were also used from a literary fiction novel where the author includes conversation segments (Beledian 2003). I have abstracted away from any sociolinguistic considerations and consider data from across all ages and genders. As mentioned earlier, I have looked only at the spoken Lebanese/Syrian sub-dialect of Western Armenian spoken in the United States. There is inter-speaker and intra-speaker variation which I do not go into detail. There are certain structures and morphemes that one group of speakers preferred over another. The data in this thesis does not reflect the grammar of one single speaker, but the conglomerate of these 40 or so speakers. Future work will look at the variation analyzed in this thesis.

2.1 Word Order

Western Armenian is a mostly head-final language. However two factors force one to state that WA is not a strict head-final language: (1) certain phrases are obligatorily or optionally head-initial and (2) scrambling is possible and blurs the head-final nature of the language. I will briefly present headedness in this section. However the issue of headedness arises in many of the sections in this chapter, as well as throughout this thesis. Therefore more will be said about each of the phrases of the language, when relevant.

2.1.1 Headedness

The phrases that are head-final in WA are seen in (3), and the head-initial phrases are in (4). Most of these phrases will be discussed in the following sections of this chapter. As stated before, WA is a mostly head-final language.

(3) HEAD-FINAL

DP	NP D	kirk mə	'a book'
$V_{be}P$	DP V	a∫agerd em	'I am a student'
IP	VP Aux	geradz em	'I have eaten'
most PPs	DP P	kirk-in dag	'under the book'
mostly suffixal		vra- in - ner - ov - $ i t$	with-GEN-PL-INST-2S.POSS 'with the things on you'
mostly OV			

(4) HEAD-INITIAL

CP	C TP	vor jes desa	'that I saw.1S'
V with CP complement	V CP	gardzem [vor jes desa]	'think.1S that I saw.1S'
some PPs	P DP	mint∫ev dun	'until home'
FutP	Fut VP	bid ude	'3S will eat'
NegP	Neg VP	t∫i gera	'I didn't eat'
DemP	Dem NP	as kirk-ə	'This book'

A few of these head-initial phrases are also seen in other head-final languages. For example Hindi CP complements of verbs also follow their verbs as in (5). I will discuss more about the details of headedness at the end of this chapter.

(5) Ram jaan-taa hai [ki kaun aa-yaa thaa]
Ram.M know-IMPFV.MSG be.PRS.3SG that who.M come-PFV.MSG be.PST.MSG
'Ram knows who had come.' Hindi [From Bhatt & Dayal (2007:291) ex 10a.]

2.1.2 Scrambling

Scrambling is seem with most of the phrases in Western Armenian. Phrases that consist of single words as in (6) to phrases that contain many words as in (7) can scramble. Information structure, discourse considerations, and desired focus all play a part in determining the order of words in a WA sentence.

(6) kitf-mə Aramə Hagop-in gə-sire
 little-INDEF Aram Hagop-DAT IMPFV-like.3S
 'Aram likes Hagop a little bit.'

Aramə kit**f-mə** Hagop-in gə-sire Aramə Hagop-in kit**f-mə** gə-sire Aramə Hagop-in gə-sire kit**f-mə**

(7) **jereg kifer 3am-ə tfors-in** Aramə dans-mə gerav yesterday night time-SPFC four-DAT Aramə pear-INDEF eat.PERFV.3S 'Yesterday at 4 in the morning, Aram ate a pear.'

Aramə jereg kifer zam-ə tfors-in dans-mə gerav Aramə dans-mə jereg kifer zam-ə tfors-in gerav Aramə dans-mə gerav jereg kifer zam-ə tfors-in

Throughtout this thesis I stick to a mostly SOV structure, however many other orders are possible. Also if different orders are relevant, I present them. I return to the discussion of scrambling at the end of this Chapter.

2.2 D and N

In this section I will give a brief overview of nouns, noun phrases, and general properties related to the nominal domain in Western Armenian. The topics I present here are plurals, specificity, case, and general argument drop.

2.2.1 Bare and Plural NPs

In Western Armenian all nominals can surface without any determiner, and convey a mass interpretation as in (8).²

²Sigler (1997:23) notes these bare nouns are unambiguously nonspecific.

 (8) kirk/t∫ur/avaz/χəntsor/dun... kənetsi book/water/sand/apple/house... buy.PERFV.1S
 'I bought books/water/sand/apples/a house.'

The nominal plural marker in Western Armenian is -(n)er: -er for monosyllabic nouns and -ner for polysyllabic nouns as in (9).³

kirk-er/geras-ner kanetsi
 book-PL/cherry-PL buy.PERFV.1S
 'I bought books/cherries.'

Since a noun may surface without any marking, as in (8), and receive a mass reading, the plural marker seems to be optional. This is clearly seen with the presence of a numeral as in (10) and (11). The prescriptive rule is to not have a plural marker with a numeral, which some speakers adamantly follow. However most speakers use the plural marker in the presence of numerals.

- (10) jerek kirk ingav three book fall.PERFV.3**S** 'Three books fell.'
- (11) jerek kirk-**er** ingan three book-PL fall.PERFV.3**P** 'Three books fell.'

In the presence of a case marker the presence of the plural marker makes the DP more saliently countable, as opposed to being one unit, seen with (12) and (13), when discussing time. Whether that unit contains a plural or singular count of individuals is irrelevant when the plural marker is not present as in (12).

- (12) jerek amis-en Boston bid ertam three month-ABL Boston FUT go.1S
 'I will go to Boston in three months.'
- (13) jerek amis-ner-en megə zade three month-PL-ABL one pick.IMP.2S 'Pick one of the three months.'

 $^{^{3}}$ For an extensive examination of the phonology of the plural marker see Vaux 2003. For a historic and general look at the plural marker see Donabedian 1993.

The presence of the plural marker on the subject usually dictates the number agreement marked on the verb as seen in (12). If the plural marker is present then the agreement on the verb is plural. Omitting the plural marker, say in the presence of a numeral, the agreement changes to singular, comparing (12) and (13).

The denotation of all bare nouns correspond to the English object-denoting mass nouns (Bale & Khanjian 2009). Plural marking -(n)er suffixed onto nouns results in a count interpretation of the NP. The Western Armenian plural marker, unlike the English plural marker, does not include single individuals. The only interpretation available is that of 2 or more. This is made clear in downward entailing environments, like polar questions seen in (14), where a hearer responds 'no' if they have just one child, unlike English. The more usual way to state (13) is without the plural marker, treating the noun phrase with a mass interpretation. For more discussion about the semantics of the plural marking and numerals see Bale et al. (2011a, 2011b).

(14) tuk bəzdig-ner unik?
2P.PL child-PL have.2P?
'Do you have children (plural)?'

2.2.1.1 Phonology: epenthetic j

Throughout this thesis a certain morpheme sometimes has a slightly different phonological form than other instances of the same morpheme. One such environment where this is the case is when two vowels from different morphemes end up adjacent to each other and j ends up being epenthesized in between them.⁴ For example when a monosyllabic noun ending in a vowel is pluralized a j surfaces as in (15).⁵ Another example is with the past tense marker -i suffixing onto verbal stems which usually end in a vowel as in (16).

- (15) tsi-j-er horse-*j*-PL 'horses'
- (16) gə-loka-j-i-nk IMPFV-swim-j-PAST-1P 'We used to swim.'

⁴Reminder that I am using the IPA throughout this thesis and therefore j is the palatal approximant and not the voiced post-alveolar affricate.

⁵This j is strictly a phonological byproduct and is semantically empty. I will therefore not parse it as a separate morpheme anywhere else in the thesis.

2.2.2 Definiteness and Specificity

One of the most utilized suffixes in Western Armenian is ∂/n seen multiple times in (17), which I gloss as 'X' for emphasis. ∂ and n are phonologically conditioned allomorphs of the same morpheme. ∂ appears after consonants and n appears after vowels.⁶

(17) Aram-ə seran-i-n vəra-ji kirk-er-ə Hagop-i-n dəvav Aram-X table-GEN-X on-GEN book-PL-X Hagop-DAT-X gave.3S 'Aram gave Hagop the books on the table.'

Most traditional grammars label ∂/n as either the definite marker or the nominative/accusative marker. Since this suffix appears on indirect objects, after the dative marker, like in (17), for *Hagop-i*-n it cannot be said to be strictly a NOM/ACC marker. It also appears after genitive and ablative cases, one example being 'table' *sewan-i*-n in (17). Sigler (1997) examines this marker in detail and concludes that the $-\partial/n$ morpheme is 'a marker of specificity ... on NPs whose referent forms a subset of items that have already been introduced into the discourse.' She points out that the definiteness comes out as a subcase of specificity (Sigler 1997:107). She goes on to show that this morpheme is used in two instances: (1) within DPs, as an agreement marker, marking person agreement with the argument in the spec-DP (2) at the clause level, as a marker of specificity. The two instances are seen in (18) and (19). Throughout this thesis I distinguish between these two instances, by calling the first a possessive marker (POSS), and the second a specificity marker (SPFC).

(18) anor kirk-**ə** kəda 3S.GEN book-3S.POSS find.PERFV.1S 'I found his book.'

- (i) Aram-n e Aram-SPFC be.3S 'It's Aram.'
- (ii) Aram-n-al jegav Aram-SPFC-AL come.PERFV.3S 'Aram also came.'
- (iii) Aram-n u Hagop-ə Aram-SPFC and Hagop-SPFC 'Aram and Hagop'

⁶There are a few environments where the following morpheme, specifically a clitic that is vowel initial, forces a -n where a $-\partial$ would have been expected: with the copula 'be' as in (i), with the additive -al as in (ii), with the coordinator u 'and' as in (iii).

(19) kirk-ə kəda book-SPFC find.PERFV.1S 'I found the book.'

Forms like $meg-\partial$ 'one-SPFC' 'someone' strongly suggest that this suffix $-\partial/n$ is not a definite marker, but something else. I follow Sigler (1997) throughout this thesis and assume that ∂/n is a specificity marker SPFC. For more information on the details of the distribution and comparison to other similar languages see Sigler (1997). As for Eastern Armenian the $-\partial/n$ is a NOM/ACC marker according to Megerdoomian (2002:114).

2.2.3 Definite NPs

Definiteness is expressed with a specificity suffix on NPs discussed in the previous section.⁷ The specificity suffix is usually final in the order of suffixes as seen in (20).

(20) kər -v -adz -ner -e -n write -PASS -PRF -PL -ABL -SPFC 'from the written ones'

However clitics, like -al, can attach to a definite NP marked by the specificity marker as in (21).

(21) kirk-n-al garmir e book-SPFC-AL red BE.3S 'The book is also red.'

The definite marker can attach to any adjective to form a definite NP as in (22). This is a result of the noun being omitted or dropped. For example taking (23), the noun *kirk* 'book' can be dropped giving (22).

- (22) garmir -ə red -SPFC 'the red one'
- (23) garmir kirk -ə red book -SPFC 'the red book'

⁷This subsection is taken from Khanjian (2012:877-879).

The specificity marker is obligatory with certain types of phrases. One of these are the demonstratives. Demonstratives precede the nouns they modify and come in three forms, the proximal which is marked by -s, medial marked by -t and distal marked by -n as in (24). Unlike English, plurality is not marked on the demonstratives for plural NPs as seen by (25).

- (24) as/ at/ an ∫un-ə this/ that/ yonder dog-SPFC 'this/that/that.yonder dog'
- (25) as/ at/ an gadu-ner-ə this/ that/ yonder cat-PL-SPFC 'these/those/those.yonder cats'

However, plural forms of the demonstratives exist, as shown in (26). They are full fledged definite plural NPs and cannot be followed by a noun as in (27). These demonstratives appear with the Classical Armenian nominative plural marker -k.

- (26) asonk/ adonk /anonk desa these/ those/ those.yonder see.PERFV.1S 'I saw these/those/those.yonder.'
- (27) *asonk gadu-ner-ə these cat-PL-SPFC

Finally there is a set of definite singular demonstratives that can stand as NPs seen in (28). Once again they cannot be followed by a noun, which is trying to be modified by the demonstrative, as in (29).

- (28) asiga/ adiga/ aniga desa this/ that/ that.yonder see.PERFV.1S 'I saw this/that/that.yonder one.'
- (29) *asiga gadu-n this cat-SPFC

Possessive constructions are formed using the genitive marker accompanied by a possessive marker on the possessee as in (30). As mentioned above, the specificity suffix follows the genitive case. However the plural marker precedes the genitive as seen in (31).

- (30) Aram-i-n kirk-ə Aram-GEN-SPFC book-3S.POSS 'Aram's book'
- (31) kirk-er-u-n nyt-ə book-PL-GEN-SPFC topic-3P.POSS 'the books' topic'
- (32) kirk-i-n et∫-er-ə book-GEN-SPFC page-PL-3P.POSS 'the book's pages'

The first and second person possessive clitics, -s and -t respectively, can take the place of the definite marker indicating the appropriate person as in (33). The 3S and all the plural possessive markers are homophonous with the specificity article, $-\partial/n$.⁸ Since certain suffixes only have a single phonological form, like the ablative -e, they will always appear with one allomorph of the specificity suffix. For the case of the ablative, since it ends in a vowel, it always appears with -n when marked for specificity.

(33) kirk-er -{əs /ət} book-PL -1S.POSS /2S.POSS 'my/your books'

Quantified nouns can be embedded as possessors shown in (34) and (35). As seen in (36) it is possible to embed multiple possessive structures. Once again each genitive marker requires the presence of a possessive marker. Two pairs are seen in (36).

- (34) amen afagerd-i madid-ə teвin e all student-GEN pencil-3S.POSS yellow is.3S 'Every student's pencil is yellow.'
- (35) votf-meg afagerd-i majr-ə nerga e no-one student-GEN mother-3S.POSS present is.3S 'No student's mother is present.'
- (36) amen a∫agerd-i hor-ə dun-ə medz e all student-GEN father.GEN-3S.POSS house-3S.POSS big is.3S 'Every student's father's house is big.'

⁸These are the same clitics that show up in the demonstratives shown above where the -s is used for proximal, the -t is used for the medial, and the -n is used for the distal: as/at/an 'this, that, that over there', hos/hot/hon 'here, there, over there', minages/minaget/minage 'by myself, by yourself, by 3S's self', arantsines/arantsinet/arantsine 'by myself, by yourself, by 3S's self', ingzinkis/ingzinkit/ingzinkin 'myself, yourself, 3S's self'. None of these forms are possessive marked; these person clitics have been lexicalized.

Finally, a generic interpretation of NPs can be obtained using either a definite non-plural or an optionally definite plural nominal. The definite marker is obligatory in the absence of the plural marker comparing (37) with (38). It seems that the generic interpretation of NPs is only available in the subject position.

- (37) ∫un-*(∂) g∂-χadzne
 dog-*(SPFC) IMPFV-bite.3S
 'Dogs bite.'
- (38) ∫un-er-(∂) g∂-χadzne-n dog-PL-(SPFC) IMPFV-bite-3P
 'Dogs bite.'
- (39) ahramowez-*(ə) votfəntfatsadz /pənatfəntfəvadz e dinosaur-*(SPFC) annilated /extinct is.3S 'Dinosaurs are extinct.'
- (40) ahramowez-ner-(ə) votfəntfatsadz /pənatfəntfəvadz e-n dinosaur-PL-(SPFC) annilated /extinct is-3P 'Dinosaurs are extinct.'

2.2.4 meg and $-m\partial$

The indefinite marker in Western Armenian is $-m\partial$ as in (41).

(41) Aramə kirk-**mə** kənets Aram book-INDEF buy.PERFV.3S 'Aram bought a book.'

The indefinite marker m_{θ} is historically derived from the Classical Armenian word 'one' min. As is the case for most destressed high vowels, the high vowel reduced to a schwa resulting in m_{θ} (Adjarian 1957, as cited in Sigler 1997:89). This marker can be either specific or nonspecific as shown by Sigler (1997:91).

The numeral meg 'one' can co-occur with the indefinite marker in examples like (42) and (43). Both the indefinite marker and the numeral 'one' pick out a single individual.

(42) meg kirk-mən-al kənetsi one book-INDEF-AL buy.PERFV.1S 'I bought one more book.' The morpheme meg 'one' appears in a set of polymorphemic words, some seen in (44). Most of the time this morpheme seems to be optional and semantically vacuous. Any NP can replace pan 'thing' in the examples in (44).

(44) votf-(meg)-pan 'no-one-thing' nothing
 vojeve-(meg)-pan 'any-one-thing' anything
 vor-(meg)-pan-ə 'which-one-thing-SPFC' which thing?

2.2.4.1 pan

The word *pan* 'thing' in Armenian can be used to substitute and be a referent of a variety of phrases. A few examples are seen from the monologue in (45) by Berberian (2009).⁹

'**pan'-**ov **pan** ənel: ajntsjal-ner-ə, (45)gərnas ampoxt xosaktsutjun-mə conversation-INDEF thing-INST thing do.INF: in.the.past-PL-SPFC, can.2S entire vor, **pan**-in jergu jedevi pan-er-ə avərvadz desa, əsav pan-ə thing-SPFC saw.1S, said.3S C, thing-GEN two behind thing-PL-SPFC broken vor, 'kovət perem-ne, pan-mə əsav gərnas en ieser. is.3P supposedly, said.3S C, next.to.you bring.1S-NE, thing-INDEF can.2S gənenk. pajts hedo asor anor vor, 'per, pan-mə ənel? əsi do.INF? said.1S C, bring.IMP, thing-INDEF do.1P. but after this that vor Vahen indzi pan ərav tf-ertas tf-əses NEG-go.2S NEG-say.2S C Vahe 1S.DAT thing did.3S 'You can [carry on] an entire conversation with [the word] 'thing': in the past, I saw [someone] 3S said, [the car's] two back [tires] are not working supposedly, 3S said that 'if I bring it to you, can you do [something]? I said, 'bring it, we'll do [something]. but afterwards don't go around telling this or that person that Vahe [conned] me.'

2.2.5 A classifier

WA has a word *had* for 'piece', 'unit' or 'individual' which is used as a classifier as in (46). For more on the distribution and uses of *had* see Sigler (1997, 2003). Similar to *meg* 'one' from the previous section, the plural marker *-ner*, and many more morphemes to come later

⁹Omitting the hesitation markers and pauses, http://www.youtube.com/watch?v=mDXfQ-Wv5Ew Last accessed August 4th, 2013 at 2:14pm

in this thesis, the classifier had is also optional. This classifier is usually dispreferred to co-occur with the plural marker as in (47).

- (46) jerek (had) kirk three (CL) book 'three individual books'
- (47) *jerek had kirk-er kənetsi three CL book-PL buy.PERFV.3S

2.2.6 case

Western Armenian grammars traditionally state that there are six morphological nominal cases, nominative (NOM), genitive (GEN), accusative (ACC), dative (DAT), ablative (ABL), and instrumental (INST).¹⁰ These six case distinctions are only uniquely found in the pronouns, with the ACC pronoun almost having fallen out of use and replaced by the DAT pronoun seen in the last two columns in the following table. For non-pronoun DPs there are four suffixes used: the NOM is unmarked, the GEN, ACC, DAT use identical markings, usually -i or -u, the ABL uses -e and the INST uses -ov. Certain nouns are not able to take the INST case marker, like meg 'one'.

	kirk 'book'	kirk-er 'books'	meg 'one'	1S	2P
NOM	kirk	kirk-er	meg	jes	tuk
GEN	kirk-i	kirk-er-u	meg-u	im	tser
ACC	kirk-i	kirk-er-u	meg-u	indz-i/†zis	tsez-i/ [†] tsez
DAT	kirk-i	kirk-er-u	meg-u	indz-i	tsez-i
ABL	kirk-e	kirk-er-e	meg-e	indz-m-e	tsez-m-e
INST	kirk-ov	kirk-er-ov	*meg-ov	indz-m-ov	tsez-m-ov

In the following section I show that the ACC/DAT marker on NPs, which I gloss as DAT, is a differential object marker. Internal arguments exhibit differential object marking, bearing Dative marking in a pattern reminiscent of the facts in Spanish (Torrego 1998) and Hindi (Mohanan 1994). Subjects obligatorily are not dative marked. Direct objects (DO) are optionally dative marked, depending on the factors I discuss below. Indirect objects (IO) are obligatorily marked as dative.

¹⁰Eastern Armenian has a seventh case which WA wishes it had: the useful locative case, -um.

2.2.6.1 Distribution of DAT

Subjects of all types of verbs obligatorily do not take any morphological case. As in English, there is no difference between unaccusative subjects and unergative subjects, as seen in (48) and (49) respectively, which both appear without an overt case marker, or nominative case, in both English and WA.¹¹

- (48) kirk-ə /*-i-n ajretsav book-SPFC /*-DAT-SPFC burned.3S 'The book burned.'
- (49) aram-ə /*-i-n jerkets Aram-SPFC /*-DAT-SPFC sang.3S 'Aram sang.'

Nilsenova (2002) uses Silverstein's (1976) animacy scale "Human > Animate > Inanimate" to describe the WA data.¹² The internal arguments of transitive verbs (the direct objects) are obligatorily marked with NOM if inanimate as seen in (50), can be either marked with NOM or DAT if animate as seen in (51), and are preferably marked with a DAT if human as seen in (52).

•<u>__</u>

- (50) aramə salor-ə /*-in gerav Aram plum-SPFC /*-DAT ate.3S 'Aram hit the plum.'
- (51) aramə ∫un-ə /-in zargav
 Aram dog-SPFC /-DAT hit.3S
 'Aram hit the dog.'
- (52) aramə hagop-in /[?]-ə zargav Aram Hagop-DAT /[?]-SPFC hit.3S 'Aram hit Hagop.'

Spanish (Torrego 1998) and Hindi (Mohanan 1994) are two languages well known for exhibiting differential object marking similar to the WA pattern seen in this section.¹³ There are three categories of object marking, either no special marking, optional marking,

¹¹The dative marker -i is followed by the specificity marker -n in (46) and (47). To minimize clutter in the glosses I do not break up -in from now on and gloss this unit as DAT. I do the same for proper names and omit the SPFC gloss. Nothing hinges on the presence or absence of the specificity marker.

¹²Nilsenova (2002) uses the weak Bi-OT framework to analyze the distribution of WA Case.

¹³See Aissen (2002) for analysis of their and a few other differential object marking languages' differences.

or obligatory marking. Inanimate objects are unmarked and just take the definite marker as in (53), animate objects are optionally marked as in (54) and finally Animate names and pronouns are obligatorily marked as in (55).¹⁴

- (53) Javier vio la fotografa Javier saw.3S DEF photograph 'Javier saw the photograph.'
- (54) Javier vio el /al estudiante Javier saw.3S DEF /TO.DEF student 'Javier saw the student.'
- (55) Javier vio *(a) Mateo Javier saw.3S ACC Mateo 'Javier saw Mateo.'

The sentences seen above all involve third person DPs. The use of morphological case changes when the subject is 1st or 2nd person. Verbs in WA agree with their subjects, disambiguating the agent from the theme or patient, and the use of DAT case becomes completely optional for 'Human' DPs as seen in (56).

(56) (jes) aramə /-in desa (1S.NOM) Aram /-DAT saw.1S 'I saw Aram.'

Coming finally to ditransitive verbs, the indirect object (IO), as well as objects of a preposition, always take DAT. That DAT on the IO is obligatory as seen in (57).

(57) gə-sorvetsne-m tas-ə kezi /*tun /Aram-in /*Aramə IMPFV-teach-1S lesson-SPFC 2S.DAT /*2S.NOM /Aram-DAT /*Aram 'I'll teach the lesson to you/Aram.'

The case patterns of WA have evolved during the past century. The prescriptive grammars make a distinction between the six cases of most of the pronouns. More specifically the accusative forms are presented as being distinct from the dative. In the past century WA speakers have stopped using the accusative forms, deeming them as Classical Armenian forms.¹⁵ The accusative form has been replaced with the dative form of the pronouns.

¹⁴Thank you Javier Viallobos for these examples.

¹⁵Mainly due to the fact that these accusative forms of the pronouns contain the affix [z], which is the stereotypical marker of Classical Armenian, found in many prayers and religious texts. Evidence for the

While some of the members of the oldest generation still make a distinction between the accusative and dative forms of the pronouns, the one speaker I spoke to usually used them interchangeably. This is seen in the sentence below, the first from a 80 year old speaker, SV, and the second from a 52 year old speaker, AK.

- (58) aramə nanor-in nergajatsuts zis /indzi /*jes Aram Nanor-DAT introduced.3S 1S.ACC /1S.DAT /*1S.NOM 'Aram introduced Nanor to me.'
- (59) aramə nanor-in nergajatsuts indzi /*jes Aram Nanor-DAT introduced.3S 1S.DAT /1S.NOM 'Aram introduced Nanor to me.'

These examples suggest that morphologically the accusative case has been replaced by the dative case. The same pattern is seen with DOs, again the first is from SV:

- (60) aramə zajn /anor /*an nergajatsuts zis /indzi Aram 3S.I.ACC /3S.I.DAT /*S3.I.NOM introduced.3S 1S.ACC /1S.DAT 'Aram introduced 3S to me.'
- (61) aramə anor /*an nergajatsuts indzi Aram 3S.I.DAT /*S3.I.NOM introduced.3S 1S.DAT 'Aram introduced 3S to me.'

2.2.6.2 Genitive

The genitive case marker as seen above is homophonous with the dative for non-personal pronoun DPs. The pronouns have kept the distinction between the two cases. The genitive case always appears with a possessive as was discussed above. This case marker can attach to a genitive pronoun as will be discussed in Chapter 4.

2.2.6.3 Ablative

The ablative case marker is -e, and has a general 'from' meaning. A number of postpositions select for DPs marked with the ablative case as will be seen in §2.8.2. Similar to the genitive/dative marker it can be bare or be followed by the indefinite or specificity marker as in (62).

transition from accusative to dative forms for pronouns can be seen in grammars of Armenian from the mid- 19^{th} century (Aydenian 1866).

(62) Aramə kirk-ə afagerd-e-n/mə kənets Aram book-SPFC student-ABL-SPFC/INDEF buy.PERFV.3S 'Aram bought the book from a/the student.'

Looking at the pronouns, the ablative and the instrumental cases contain more morphology than the other cases, specifically, the presence of an extra -m- segment. For example for the 1S, the ablative form is *indz-m-e*, instead of *indz-e*, where the archaic accusative form *indz* first gets suffixed with a -m, then the ablative marker is added. One idea is that both the ablative and the instrumental are the most adposition - like of the cases in WA and might therefore contain more structure. However, I do not examine this segment further in this thesis.

2.2.6.4 Instrumental

Instrumental meanings are expressed either with the nominal case suffix -ov seen in (63) or with the postposition hed as in (64).

(63)	Aramə	im	kirk-er- ov -əs	dun	kənats
	Aram	1S.GEN	book-pl-inst-1S.poss	home	go.perfv.3S
	'Aram	went ho	me with my books.'		

(64) Aramə im kirk-er-u-s hed dun kənats Aram 1S.GEN book-PL-DAT-1S.POSS with home go.PERFV.3S 'Aram went home accompanied by my books.'

There are certain contexts where one is preferred over the other, since they don't mean exactly the same thing. For example, when the INST marker attaches to a proper name like in (65), the DP becomes an argument of the verb. In (66) where the postposition is used, the PP *Aram-in hed* 'with Aram' gives an 'accompanying' meaning, similar to the pair in (63) and (64). The details of their distributional differences will not be explored further.¹⁶

- (65) Aram-ov negotadz em Aram-INST upset-PERF AUX.1S 'Aram is the individual I am upset with.'
- (66) Aram-in hed newvadz em
 Aram-DAT with upset-PERF AUX.1S
 'Aram and I are upset together [at something in the discourse].'

¹⁶For a look at the corresponding morphemes in Eastern Armenian see Dum-Tragut (2009).
Instrumental is the only case that can attach to a nominalized verb and be a complete phrase as in (67). The infinitive suffix along with the nominal instrumental case indicate that the verb is nominalized.

(67) jerke-l-ov, Aramə dun kənats sing-INF-INST, Aram home go.PERFV.3S 'Aram went home singing.'

Other cases are capable of attaching to nominalized verbs; however, these cases are selected by postpositions and they themselves cannot stand alone as an adjunct clause as the instrumental can. This is demonstrated with the dative in (68) and ablative in (69), where the postposition is required and without them the case marked nominalized verbs do not make any sense.

- (68) jerke-l-u *(hamar), Aramə dun kənats sing-INF-DAT *(for), Aram home go.PERFV.3S 'So that Aram will be able to sing, Aram went home.'
- (69) jerke-l-e *(arat∫), Aramə dun kənats
 sing-INF-DAT *(before), Aram home go.PERFV.3S
 'Aram went home, before he sang.'

Finally the instrumental case is not allowed to attach to certain NPs and the postposition hed 'with' must be used as in (70) and (71).

- (70) *meg-ov dun katsi one-INST home go.PERFV.1S
- (71) meg-u-mə hed dun katsi one-DAT-INDEF with home go.PERFV.1S 'I went home with someone.'

2.2.7 gender

Western Armenian does not mark gender on nouns, modifiers, or pronouns. There is a feminine suffix *-uhi* in words like *tak-uhi* 'queen' formed from *tak* 'crown' and the *-uhi*, equivalent to *-ess* in English for words like *princess* and *hostess*.

2.2.8 pro-drop and object drop

Western Armenian is an optional *pro*-drop language. However any argument of any verb can be dropped when understood in the discourse as in (72).

(72) dəvi gave.1S 'I gave X to Y.'

Any number or person of an object seems to be droppable, not just 3S as seen in (73). Once again as long as this object is understood and introduced into the discourse before the sentence is uttered.

(73) (tsezi /afagerd-ner-un /kezi /ingzinkis /fun-i-t) nergajatsutsi
 2P.DAT /student-PL-DAT /2S.DAT /myself /dog-DAT-2S.POSS present.PERFV.1S
 'I presented X to {you guys/the students/you/myself/your dog}.'

2.3 The WA verb

Leaving behind the nominal domain I move on to the world of WA verbs. The verb is fundamental for the discussion of negative concord (Chapter 3) and complementizer concord (Chapter 4). I will first start from the root of a verb and build up, adding the different morphemes found in the verbal domain. I then go on to presenting auxiliaries, modals, and frequently used verbs with special properties not shared with all verbs.

2.3.1 Root and Stem

Western Armenian verb roots come in three varieties in terms of their morphology when combining with different aspects and suffixes. Roots are either regular across the board, represented by 'tie' gab- in the first line of table (74). A difference between root forms arise in the second and third types of roots. There are what I call imperfective IMPFV roots and there are perfective PERFV roots. A number of languages, like Russian and Arabic, have a distinction between these two aspects in terms of root form. The line up of affixes, whether being in the 'imperfective' group or the 'perfective' group are given in table (75).

Going back to the roots, the second line in table (74) represents those verbs roots that end in an -n- in the imperfective. In the perfective this -n- is dropped. The final line are the verbs with suppletive roots, where the imperfective and the perfective roots are either completely different or more different than just a final -n- difference.

,				
		IMPFV	PERFV	
(74)	tie	gab-	gab-	
(14)	take	ar-n-	ar-	
	eat	ud-	ger-	
	IMPFV		PERFV	
	imper	fective	perfective	e
(75)	progr	essive	perfect	
(10)	prohibitive		imperative	
	infinit	tive	evidentia	1
	subjunctive			

Throughout this thesis I refer to the stem of a verb as the verb root plus an additional vowel, either {a, e, i}, prescriptively called a *theme vowel* seen in (76).¹⁷ There is however a wrinkle to adding a 'theme vowel' to the second type of roots, the ones that take an -n- for the imperfective. This -n- is a relic from Indo-European, seen also in Sanskrit and Ancient Greek for example.¹⁸ All of these verbs, regardless of their 'theme vowel', morphologically behave the same when further aspect morphology is added as seen in (77) for the perfective, comparing regular verbs from the first line in table (74) and -n- bearing verbs from the second line.

		root	stem
(76)	read	gart-	gart-a
(10)	tie	gab-	gab- e
	stick	pag-	pag-i

		IMPFV stem	PERFV stem	perfective.1S
	read	gart-a	gart-a	gart-a-ts-i
	tie	gab-e	gab- e	gab- e - ts - i
(77)	stick	pag-i	pag-i	pag-e-ts-a
	forget	mor-n-a	mor-	mor-ts-a
	enter	m arrow d - n - e	məd-	məd-a
	arrive	has-n-i	has-	has-a

The theme vowels for the regular roots, seen in the first half of table (77), determine certain morphological differences when adding on aspect to the stem. Whereas the roots

¹⁷Prescriptive grammars say there is a fourth theme vowel u (Boyacioglu (2010)). However it is not found in the spoken language.

¹⁸Thank you to Adam Albright and Donca Steriade for pointing this out.

with the additional imperfective -n- all behave the same. There are two issues left for future research regarding theme vowels. Why do both regular and -n- bearing roots which take -a- as their theme vowel appear with an additional -ts- for all the perfective forms, compared to the other theme vowels, seen in (77) with *mor-ts*- 'forgot'. This is also the case for the imperative *mor-ts-ir* 'forget.IMP.2S' and the perfect *mor-ts-adz* 'forgotten'. The other theme vowel stems simply suffix on the desired morphemes.¹⁹

The second morphophonological issue is regarding the -i- theme vowel. When adding the *past* person/number morphemes onto the stems of -i-, the theme vowel changes to -e-. All other past/non-past forms stay faithful to their original theme vowel, shown in (78) for the 1S subjunctive forms.²⁰

		IMPFV stem	1S.past	1S.NON-PAST
	read	gart-a	gart-a-ji	gart-a-m
	tie	gab-e	gab- e - ji	gab- e - m
(78)	stick	pag-i	pag - \mathbf{e} - ji	pag-i- m
	forget	mor-n-a	mor-n-a-ji	mor-n-a-m
	enter	məd-n-e	$m i d \cdot n \cdot e \cdot j i$	m i d - n - e - m
	arrive	has-n-i	has - n - \mathbf{e} - ji	has - n - \mathbf{i} - m

2.3.2 Tense, Person, Number

Western Armenian tensed verbs obligatorily mark agreement for subject person and number. Since there is no nominal gender/class marking in the language, there is no gender agreement on the verb. Tensed verbs are either past or non-past; I only gloss a past verb as PAST, and leave non-past verbs as unglossed for tense. Therefore if any verb marked for agreement has no tense specification in its gloss (past/non-past) then that verb is non-past. The imperfective, progressive, perfect, evidential, and subjunctive forms of the verbs appear with either of these two tenses. The perfective is only possible with the past. The non-

¹⁹With the approach just sketched out above, one runs into an unclarity with verb roots that end in -n, that are 'regular' and belong to the first row of (74), and verbs from the second row which show up with a -n-in the imperfective forms. This last -n segment of the regular roots can be misanalyzed as the imperfective -n-, which would alter the verbal suffixes used. One such verb is χarn - 'mix' as seen in the table below. An almost minimal pair is seen with χadz -n- 'bite'. Related nominal forms of the verbal roots show if the final -n is part of the root or not.

Forms	rootn-	GLOSS	IMPFVn-	GLOSS
Stem	$[\chi ar n-e]$	'mix'	[xadz-n-e]	'bite' (v.)
1S PERFV	[xar <i>n</i> -ets-i]	'I mixed'	[xadz-i]	'I bit'
Nominal	[xar <i>n</i> -urt]	'mixture'	$[\chi adz]$	'bite' (n.)

²⁰For an analysis regarding this neutralization see Baronian (2005:109). This is left for future research.

tensed forms of the verbs, like the infinitive, imperative, and nominalized forms are not marked as past or non-past. The non-past is morphologically not marked in general and the past is marked with either an -a- or an -i- as seen in (79). In the table below I present the person, number, and tense markings, which I collectively refer to as AGR.

(79) PERSON, NUMBER, AND TENSE VERBAL AGREEMENT MARKINGS

Person-Number	Non-Past Marking	Past Marking
1S	-m	$-{i,a}-\emptyset$
2S	-8	-{i,a}-r
3S	-Ø	$-\{(i)r,-av, \emptyset\}$
1P	-nk	-{i,a}-nk
2P	-k	-{i,a}-k
3P	-n	-{i,a}-n

The endings are mostly regular, with the exception of the 3S for the -i- form of the past, which surfaces as -r, fusing the person, number, and tense. Tense and the choice of which stem, either IMPFV or PERFV from the previous subsection, interact as shown by the following restrictions revealed with temporal adverbs for the subjunctive forms of the verbs.

	jereg	a j sor	vasə		
	'yesterday'	'today'	'tomorrow'	go.3S-when	
(80)	*		\checkmark	jerta-ne	impfv
	\checkmark		\checkmark	jerta-r-ne	impfv-past
	\checkmark	\checkmark	*	kəna-ts-ne	perfv.past

2.3.2.1 Future *bid(i)*

To express a future event, either future from the utterance time or future from a past reference time, the modal *bidi* is used seen in (81).²¹ This verbal element never takes any inflection, tense, agreement or aspect. The only morpheme that *bidi* can host is verbal negation which is prefixed as seen in (82). Finally this modal cannot appear in a VP by itself, and requires some other verbal element, namely a tense morpheme which contains a past/non-past morpheme and a person and number subject agreement marker. In all three word combinations shown in (81), this modal needs to precede the tensed verb:²² **bidi** > **Verb-T**, where T = tense.person.number.

²¹In speech *bidi* is usually uttered as *bid* or even more contracted as b/+high/ for examples like [bytem] 'I will eat' formed from *bid* + *udem* 'eat.1S' the rounding of the root and the frontness of the future marker combine to the high front round vowel [y] giving the first nucleus in 'I will eat' for some speakers.

 $^{^{22}}$ There are intonational differences between sentences with different word orders which I leave aside.

(81) jes bidi vaze-m I FUT run-1S.NON-PAST 'I will run.'

> *bidi* jes vaze-m *bidi* vaze-m jes

(82) Aramet fe-bidi dun erta
 Aram NEG-FUT home go.3S
 'Aram is not going to go home.'

Haig (1980) discusses the Future marker *bidi* in WA and claims that the future marker is a marker of intentionality which the simple future tense is a subset of. However examples like (83) show that the current state of *bidi* cannot be considered to be a marker of intentionality since non-intentional future predicates are expressed with *bidi*.

(83) varə bid antsreve tomorrow FUT rain.3S 'Tomorrow it will rain.'

I attach the future marker below the TP for Western Armenian, following Copley (2002).²³ This makes sense since every future marker is accompanied by a verb that is either marked for past or non-past. There are no cases of the future marker occurring without the presence of a TP. TP



There is a second way of expressing the future, where the future marker is not used, instead the imperfective is used as in (84). For further discussion on the use and differences between this method and the use of the future marker *bidi* see Haig (1980).

(84) jerek amis-en Boston g-ertam-gor three month-ABL Boston IMPFV-go.1S-PROG 'I'm going to Boston in 3 months.'

 $^{^{23}}$ For this thesis the exact height of attachment of FutP is not crucial to the analyses presented. For further discussion on futures see Copley (2002).

2.3.3 Aspect

Additional morphology can be affixes onto the tensed stem of a verb. WA has four main aspect distinctions: Imperfective (IMPFV), Progressive (PROG), Perfective (PERFV), and Perfect (PERF). Examples of the four aspects are given in the next three examples. In the following subsections I will go through each of the aspects in a bit more detail.²⁴

- (85) tun g-erke-s 2S.NOM IMPFV-sing-2S 'You sing.'
- (86) tun (g)-erke-s-gor 2S.NOM (IMPFV)-sing-2S-PROG 'You are singing.'
- (87) tun erk-ets-i-r 2S.NOM sing-PERFV-PAST-2S 'You sang.'
- (88) tun erk-adz e-s 2S.NOM sing-PERF AUX-2S 'You have sung.'

The four aspects of WA can all be negated. Three take auxiliaries, and one does not, as seen in the table in (89). I will discuss the interaction of negation and aspect later on in §2.6.2. Following the table I include the examples (90) to (93), which are the negative forms of the four examples seen in (85) to (88).

	Aspect	Positive	Negative
	Imperfective	gə-Verb-T	NEG-AUX-T Verb-r
(89)	Progressive	gə-Verb-T gor	NEG-AUX-T Verb-r gor
、	Perfective	Verb-ts-T	NEG-Verb-ts-T
	Perfect	Verb-adz BE-T	NEG-AUX-T Verb-adz or Verb-adz NEG-AUX-T

- (90) tun t∫-e-s erke-r 2S.NOM NEG-AUX-2S sing-NEG.IMPFV 'You don't sing.'
- (91) tun t∫-e-s erke-r -gor 2S.NOM NEG-AUX-2S sing-NEG.IMPFV -PROG 'You are not singing.'

 $^{^{24}}$ The progressive marker usually appears with the imperfective. In certain phonological contexts it is optional.

- (92) tun t∫-erk-ets-i-r 2S.NOM NEG-sing-PERFV-PAST-2S 'You didn't sing.'
- (93) tun t∫-e-s erk-adz 2S.NOM NEG-AUX-2S sing-PERF 'You haven't sung.'

tun erk-adz t∫-e-s 2S.NOM sing-PERF NEG-AUX-2S 'You haven't sung.'

2.3.3.1 Imperfective

The positive imperfective marker in WA is a prefix, g- as in (94). This aspect indicates a habitual action/property/relation of its arguments.²⁵ The imperfective is found in both the non-past as in (94) and the past as in (95).

- (94) Aramə hav g-ude Aram chicken IMPFV-eat.3S 'Aram eats chicken.'
- (95) tun hav g-ude-jir Aram chicken IMPFV-eat-PAST.2S 'You used to eat chicken.'

The negative of the imperfective is seen in (96).²⁶ An auxiliary 'be' hosts the tense.number.person marker and the negative marker. The stem of the verb is found suffixed by -r, which is found in the negative imperative as well.

(96) jes hav t∫-e-m ude-r 1S.NOM chicken NEG-AUX-1S eat-NEG.IMPFV 'I don't eat chicken.'

Looking at the modern language, one would expect a suffix to mark the imperfective, since the perfective and the perfect are suffixes, along with most other markings in WA. Historically the WA prefix g- has a periphrastic origin; it used to be a separate verb, gam 'I am, I stand' + u 'and' (Donabedian & Ouzounian (2008)) in Classical Armenian. Over time this

²⁵Eastern Armenian also has a verbal prefix k-, however it does not have the imperfective meaning. In EA it is used for certain types of futures, which WA also uses, as I discussed in the section on futures above.

²⁶The negative imperfective of the 3S is tf-ude-r, from tfi-ude-r which is the negative 3S AUX. However due to the two vowels ending up adjacent to each other, only the u of the root surfaces.

serial verb construction grammaticalized into the imperfective marker: gam u > gu > ga.

2.3.3.2 Progressive

To distinguish between a habitual action and an action in progress, the progressive marker -gor is used.²⁷ This morpheme attaches to an imperfectivized verb, for both positive (97) and negative (98) cases.²⁸ Since -gor attaches to the agreement marker in the positive, how come it does not appear suffixed onto the agreement marker in the negative? This seems to suggest that -gor is more of a clitic, since it has this strong requirement to be phrase final. Further evidence for -gor being a clitic comes from stress. -gor does not bear stress, a property shared with clitics of WA and clitics in other languages. The stress of the verb goes onto the syllable immediately preceding the progressive marker -gor. Therefore, comparing (97) and (98) the progressive marking -gor ends up as the final element of the phrase and attaches to the negative imperfective marker -r found on the verb stem.

- (97) gə- vaz -e -i -nk **-gor** IMPFV- run -VC -PAST -1P -PROG 'We were running.'
- (98) t∫- e -i -nk vaz -e -r -gor NEG- BE -PAST -1P run -VC -NEG.IMPFV PROG 'We weren't running.'

Historically it is not agreed on where *-gor* comes from. Since *-gor* is not allowed in the written language, it is not found in documents. Adjarian present two possible hypotheses: either the imperfective g_{θ} combined with the conjunction (v)or 'that' to form *gor*, or the imperfective g_{θ} combined with the Turkish *-yor* progressive marker (Donabedian & Ouzounian (2008)).²⁹

 $^{^{27}}$ This distinction and the morpheme *gor* are not found in Eastern Armenian. Therefore the continuous and the habitual are not distinguished by just looking at the verb.

 $^{^{28}}$ Some speakers leave out the imperfective marker when uttering the progressive. Also in certain subdialects of WA the final -r is dropped resulting in -go as the progressive marker. This is attested for a few speakers of the Egyptian and the Istanbul subdialect of WA.

²⁹Regardless, most speakers of WA and EA even, see *gor* as a borrowing of Turkish *-yor*, and therefore think of it in a negative light and as taboo (See Donabedian (2001a) for a sociolinguist analysis of *gor*).

2.3.3.3 Perfect

The next aspect, the perfect, is expressed as the suffix -adz onto the root of a verb as in (99). The perfect marker does not take tense.person.number marking. Instead an auxiliary 'be' is inserted which hosts the tense.person.number as seen in (99). Changing the tense from non-past in (99) to past in (100) alters only the auxiliary.

- (99) Aramə ger-adz e Aram eat-PERF AUX.3S 'Aram has eaten.'
- (100) Aramə ger-adz er Aram eat-PERF AUX.PAST.3S 'Aram had eaten.'

The negative of the perfect also is hosted by an AUX as in (101), similar to the imperfective, seen above. See §2.6.2 for more discussion on the interaction of negation and the perfect.

(101) Aramə t∫-e ger-adz Aram NEG-AUX.3S eat-PERF 'Aram has not eaten.'

WA has a second suffix, which morphologically behaves similar to the perfect. This is the evidential marker *-er*, seen in (102), frequently used in speech to report an action more than to state a fact.³⁰ This suffix is usually accompanied by the adverbial *jewer* 'apperently'.

(102) Aramə ger-er e, (jeʁer) Aram eat-PERF AUX.3S, apperently 'Aram has eaten, [apparently].'

2.3.3.4 Perfective

The final aspectual distinction found on WA verbs is the perfective, as seen in (103). The perfective in WA only appears in the past. The past morpheme, which carries the person and number subject agreement as I discuss above, suffixes onto the perfective aspect as seen in (103). This is different from the perfect, presented in the previous section, where the tense morpheme needs an auxiliary host. For many of the verbs in this thesis the perfective,

³⁰For an analysis and discussion of the evidential see Donabedian (1996, 1999, 2001b).

past and person.number are expressed with the same morpheme, seen with the verb 'enter' $m\partial d$ - in (104).³¹

- (103) kirk garta-ts-i-nk book read-PERFV-PAST-1P 'We read books.'
- (104) ners məd-a inside enter-PERFV.PAST.1S 'I entered in.'

2.4 Not exactly your typical verb

2.4.1 be

The verb 'be' in Western Armenian has three roots: e, ∂ll , jeB. As discussed above in §2.3.1, some verbs morphologically mark the difference between the imperfective and the perfective form of the verb. The verb 'be' is one of these verbs. The stem ∂lla is used for the imperfective forms and jeB is used for the perfective as seen by the table in (105).

	imperfective past/non-past	[g-əlla-m]	Impf-be-NonPast.1S
	progressive past/non-past	[g-əlla-m-gor]	Impf-be-NonPast.1S-Prog
	subjunctive past/non-past	[əlla-m]	be-NonPast.1S
	infinitive	[əlla-1]	be-Inf
(105)	perfective past	[ieu-a]	be-Prfv.Past.1S
	perfect past/non-past	[jes-adz e-m]	be-Prf aux-NonPast.1S
	evidential past/non-past	[<i>jeu</i> -er e-m]	be-Evid aux-NonPast.1S
	imperative (2S)	[jes-ir]	be.Imp.2S
	will/if perfect past/non-past	[bidi/jete jes-adz əlla-m]	will/if be-Prf aux-NonPast.1S

As seen by the table above, the verb 'be' is regular in that it follows the generalizations of all other verbs in WA. However there is a third root for the verb 'be', e, that is used for a number of contexts. This form surfaces with only tense and person/number subject agreement, seen in (106).

³¹Since perfective is always accompanied by the past, I leave out PAST from the gloss in the presence of the perfective throughout the thesis.

		Non-I	oast	Past	
	Person	Singular	Plural	Singular	Plural
(106)	1	e-m	e-nk	e-ji	e-ji-nk
	2	e-s	e-k	e-ji-r	e-ji-k
	3	е	e-n	e-r	e-ji-n

The forms of e 'be' are the copula used with nonverbal predicates as in (107) and (108).³² The form e- obligatorily takes T. This "be" morpheme cannot be nominalized or carry any aspect and can appear by itself in a VP as seen in the examples below in (107). This verbal form must be immediately preceded by its complement revealing the head-finalness of WA: **Predicate** > e-T.³³

- (107) Aramə χelatsi/gardʒ/uraχ/haj e/er
 Aram smart/short/happy/Armenian AUX.3S/PAST.3S
 'Aram is smart/short/happy/Armenian.'
- (108) tun dun-i-n met∫-n es 2S.NOM house-GEN-SPFC in-SPFC AUX.2S 'You are inside the house.'

This 'be' verb, AUX, is found in a few other environments: the predicate *need*, the auxiliary of the *perfect* and *evidential*, and simple free relatives, formed by the AUX 'be'.

(109) bedk-e 'need-AUX'
verb-adz e 'verb-PERF AUX'
verb-er e 'verb-EVID AUX'
wh-(vor) e-(ne) 'WH-C AUX-NE'

As I discuss below in §2.7.1.2 there are three morphemes that can head a free relative: vor, -ne, and -al. For the simple free relatives formed with the AUX 'be', only vor and -ne can be used as seen in (110) for the wh-item 'what' intf.

(110) intf-vor-e / intf-e-ne / *?intf-al-e 'whatever'

 $^{^{32}}$ As mentioned earlier, an epenthetic glide surfaces between vowels across morpheme boundaries, therefore *je* instead of *e*.

³³However $e \cdot T$ might be an enclitic since absolutely nothing seems to be able to intervene between it and its complement. This is also demonstrated with the perfect form of the verb which requires an auxiliary "be" form to carry T. When the form of the auxiliary is e- nothing can surface between it and the perfect form of the verb stem. In Eastern Armenian e- is a second position clitic in vP according to Tamrazian (1994) and Kahnemuyipour & Megerdoomian (2011). The Western Armenian AUX does not behave like the Eastern Armenian one, with respect to adverbs, focus, and other phrases which reveal the second position property of the Eastern Armenian AUX.

The second form *əlla*- which is the root used for the categories listed in the table above can either take T and aspect as seen in (111), or the infinitival marker as in (112), turning it into a participle form that takes nominal suffixes. The future modal *bidi* must precede this *əlla* just like all other verbs: **bidi** > **əlla-T**. This form of "be" does not require its complement to be immediately preceding it as seen in the permutations of (111).

- (111) jes bidi urax *əlla*-m
 I will happy be-1S.NON-PAST
 'I will be happy.'
 - (jes) bidi (jes) urax (jes) əlla-m (jes) (jes) bidi (jes) əlla-m (jes) urax (jes) (jes) urax (jes) bidi (jes) əlla-m (jes)
- (112) jes bidi gərna-m vaz-adz əlla-l I will can-1S.NON-PAST run-PERF be-INF 'I will have been able to run.'

This form of "be" is also used as the auxiliary of the perfect, that takes T as opposed to the perfect base as seen in (112) and (113). This auxiliary must immediately follow the perfectized verb: V-adz > əlla-T.³⁴

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- (113) jes bidi vaz-adz *əlla-*m I will run-PERF be-1S.NON-PAST 'I will have run.'
 - (jes) bidi (jes) vaz-adz əlla-m (jes) (jes) vaz-adz bidi əlla-m (jes)

The final form of "be" is *jew* which is the perfective root used with the perfect, perfective, evidential and positive imperative forms as seen in (114).³⁵ This form is also the root that takes the agentive nominalizer *-ow* equivalent to English *-er* in 'dancer' or 'singer', *bar-ow* 'dance-er' or *jerk-ow* 'sing-er' in WA.

(114) uraχ jeβ-adz e-m
 happy be-PERF AUX-1S.NON-PAST
 'I have been happy.'

 $^{^{34}}$ In the presence of verbal negation the AUX can either follow or precede the stem, but in both cases must be immediately adjacent. This will be further discussed in §.2.6.2.

 $^{^{35}}$ For a discussion of the imperfective/perfective differences in WA see §2.3.1

2.4.2 have

The verb 'have' is almost parallel to 'be' presented in the previous subsection. 'have' also has three forms: *uni*, *unena*, *une*, which are all clearly morphologically related unlike the three roots of 'be'. There is the auxiliary like 'have' *uni*, which appears as only 12 forms, seen in the table below, parallel to *e* 'be'. The non-past stem is *uni*, the past stem is *une*, and not *uni*. This follows the pattern of *-i*- theme vowel bearing stems as was shown above for verbs like *pag-i*- 'stick' and *has-ni*- 'reach'.

(115)

	Non-past		Past	
Person	Singular	Plural	Singular	Plural
1	uni-m	uni-nk	une-ji	une-ji-nk
2	uni-s	uni-k	une-ji-r	une-ji-k
3	uni	uni-n	une-r	une-ji-n

The auxiliary form of 'have' uni is used for possession, as in (116).

(116) Aramə gadu-mə uni Aram cat-INDEF have.1S 'Aram has a cat.'

The regular verb form unena/une act as a -na- verb discussed above when 'have' combines with any aspect as in (117). This is expected since the imperfective form carries -na-, which disappears in the perfective forms. The forms of unena/une are seen in (118).

(117) Aramə gadu-mə unets-adz e Aram cat-INDEF have.PERFV-PERF AUX.3S 'Aram has had a cat.'

	imperfective past/non-past	[g-unena-m]	Impf-have-NonPast.1S
	progressive past/non-past	[g- <i>unena</i> -m-gor]	Impf-have-NonPast.1S-Prog
	subjunctive past/non-past	[unena-m]	have-NonPast.1S
	infinitive	[unena-l]	have-Inf
(118)			
(*10)	perfective past	[unets-a]	have-Prfv.Past.1S
	perfect past/non-past	[unetsa-adz e-m]	have-Prf aux-NonPast.1S
	evidential past/non-past	[unetsa-er e-m]	have-Evid aux-NonPast.1S
	imperative (2S)	[unets-ir]	have.Imp.2S
	will/if perfect past/non-past	[bidi/jete unetsa-adz əlla-m]	will/if have-Prf aux-NonPast.1S

2.4.3 need

Necessity is expressed with the word for "need" bedk plus a "be" auxiliary or plus either the full verbs of 'be' $jeB-T/\partial lla-T$ or "have" uni-T/unena-T. This gives the forms bedk-e, bedk-jeB-adz, bedk- ∂lla - or bedk-uni-T, bedk-unena-T which roughly translate to "need to" or "must", seen below.

- (119) jes *bedk-e* vaze-m I need-BE run-1S.NON-PAST 'I need to run.'
- (120) jes *bedk-e* vaz-adz əlla-m I need-BE run-PERF be-1S.NON-PAST 'I need to have run.'
 - (jes) bedk-e (jes) vaz-adz əlla-m (jes) (jes) vaz-adz bedk-e əlla-m (jes)
- (121) jes bidi *bedk-jes*-adz-ə ude-m I will need-be-PERF-SPFC eat-1S.NON-PAST 'I will eat whatever is necessary.'

2.4.3.1 need vs. must

There is a syntactic difference between the 'need' with the AUX 'be' and the 'need' with the full verbs of either 'be' or 'have', seen between (122) and (123). In (122), the AUX bears no morphology, and tense and agreement appear on the lower verb *erta-* 'go'. In (123), the auxiliary is 'have', and bears inflection itself, with an infinitival lower verb. In the non-negative structure it is hard to discern a difference in meaning between the two as in (122) and (123).

- (122) bedk e dun ertas need AUX home go.1S 'You have to go home.'
- (123) bedk uni-s dun erta-l need have-1S home go-INF 'You have to go home.'

The difference in meaning arises in the presence of negation as seen between (124) and (125). Negation scopes over the necessity operator in (125), but does not in (124).³⁶

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- (124) bedk t∫-e dun ertas need NEG-AUX home go.1S 'You must not go home.'
- (125) bedk t \int -uni-s dun erta-l-(u) need NEG-have-1S home go-INF-DAT 'You do not have to go home.'

2.4.3.2 A puzzlette

A morphosyntactic difference between past and non-past surfaces when examining the 'need'-constructions with the auxiliary e 'be'. As presented above the basic template looks something like in (126), where X and Y are the possible slots for the tense.number.person marker, T. The AUX is the 3S form of BE. This AUX can be either nonpast e or past er.

(126) bedk e/er+X Verb+Y need AUX/BE+X verb+Y 'need to verb'

Therefore the possible permutations give the following examples, using the verb 'run' vaz-e- and 1S as T.³⁷ In (127) and (128) the non-past AUX is used and the verb takes either non-past or past T.

- (127) bedk e vaze-m need AUX run-1S 'I need to run.'
- (128) bedk e vaze-i need AUX run-1S.PAST 'I needed to run.'

Replacing the non-past AUX with the past AUX er we get (129) and (130). The first restriction arises. Namely a non-past marked verb cannot appear with a past AUX in a 'need' construction, seen in (129).

³⁶For further discussion of modality, negation, and scope see Iatridou and Zeijlstra (to appear).

 $^{^{37}}$ All verbs and person.numbers should be compatible with the following paradigm presented with 'run' and 1S.

- (129) *bedk er vaze-m need AUX.PAST run-1S
- (130) bedk er vaze-i need AUX.PAST run-1S.PAST 'I needed to run.'

Shifting T to the AUX there are two options for the slot following the verb 'run', either an infinitive marker, seen in (131) and (132) or another T. Looking at the examples in (131) and (132), in the presence of an infinitival marked verb only the past T is possible on the AUX, namely (132).

- (131) *bedk e-m vaze-l need BE-1S run-INF
- (132) bedk e-i vaze-l need BE-1S.PAST run-INF 'I needed to run.'

The last pair of examples are those with T in both slots. First the non-past T on the AUX, as shown in (133) and (134) is ungrammatical.

- (133) *bedk e-m vaze-m need BE-1S run-1S
- (134) *bedk e-m vaze-i need BE-1S run-1S.PAST

However this is not the case for a past T on the AUX. As seen in (136), it is possible to have a past T on both the AUX and verb.

- (135) *bedk e-i vaze-m need BE-1S.PAST run-1S
- (136) bedk e-i vaze-i need BE-1S.PAST run-1S.PAST 'I needed to run.'

The five pairs above can be summarized in the table in (137), which reveals the puzzling distributional possibility of the past T.

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	$bedk + \downarrow + \rightarrow$	INF	PAST	NON-PAST
	AUX.NON-PAST		$\overline{\checkmark}$	$\overline{\checkmark}$
(137)	AUX.PAST		\checkmark	*
	BE.NON-PAST	*	*	*
	BE.PAST		\checkmark	*

I leave this mystery for future work. I should note that this same restriction does not hold for the 'have' AUX *need*-constructions, since those forms take an infinitival complement.

2.4.4 can

The next verbal element that does not pattern with the typical action verb is "can" gərnawhich obligatorily carries T and takes as its complement a non-tensed form of any verb, specifically an infinitival verb as seen in (138) or (139). The strict ordering of the future marker coming before any VP is also seen with "can": **bidi** > **gərna-T**. This follows from "can" being a regular verb, therefore falling into the general restriction of the future marker obligatorily preceding the tensed verb.

(138) jes (bidi) gərna-m vaze-l I (will) can-1S.NON-PAST run-INF 'I (will.be.able.to)/can run.'

> (jes) vaze-l (jes) gərna-m (jes) (jes) gərna-m (jes) vaze-l (jes)

(139) jes bidi gərna-m vaz-adz əlla-l I will can-1S.NON-PAST run-PERF be-INF 'I will have been able to run.'

> (jes) bidi (jes) gərna-m (jes) vaz-adz əlla-l (jes) (jes) vaz-adz bidi gərna-m əlla-l (jes)

The forms of this verb are listed in the table in (140). One note is that the imperfective and progressive form of 'can' does not take the imperfective prefix, therefore morphologically there is no difference between the imperfective and the subjunctive forms of 'can'. The verb 'can' is important to the discussion of negative concord in Chapter 3.

	imperfective past/non-past	[gərna-m]	can-NonPast.1S
	progressive past/non-past	[gərna-m-gor]	can-NonPast.1S-Prog
	subjunctive past/non-past	[gərna-m]	can-NonPast.1S
	infinitive	[?gərna-l/garena-l]	can-inf
(140)	perfective past perfect past/non-past evidential past/non-past	[gərts-a] [gərts-adz e-m] [gərts-er e-m]	can-Prfv.Past.1S can-Prf aux-NonPast.1S can-Evid aux-NonPast.1S
	imperative (2S)	[[?] gərts-ir]	can.Imp.2S
	will/if perfect past/non-past	[bidi/jete gərtsa-adz əlla-m]	will/if can-Prf aux-NonPast.1S

2.4.5 Existential Constructions

Western Armenian uses the free standing morpheme ga to express existentials.³⁸ This lexical item comes in 12 forms, with 6 non-past and 6 past forms, as shown by the table in (141):^{39,40}

		Non-past		Past	
	Person	Singular	Plural	Singular	Plural
(141)	1	ga-m	ga-nk	ga-ji	ga-ji-nk
	2	ga-s	ga-k	ga-ji-r	ga-ji-k
	3	ga	ga-n	ga-r	ga-ji-n

As an SOV language, the existential is usually found at the end of both declarative and interrogative sentences as seen in the following examples. These existentials are not built from interrogatives. Also there is no definiteness effect for these constructions as I show later in this subsection.

- (142) hima kərataran-i-n met∫-(ə) kəsan had a∫agerd ga, jereg hink had now library-GEN-SPFC in-(SPFC) twenty CL student ∃.3S, yesterday five CL ga-r
 ∃-PAST.3S
 'There are now twenty students in the class, yesterday there were five.'
- (143) kərataran-i-n $met \int (a) meg a$ ga library-GEN-SPFC in-(SPFC) one-SPFC $\exists .3S$ 'There is someone in the library.'
- (144) kərataran-i-n $met \int (\partial) OV ga?$ library-GEN-SPFC in-(SPFC) who $\exists .3S?$ 'Who is in the library?'

³⁸This subsection is taken from Khanjian (2012:873-874).

 $^{^{39}\}mathrm{This}$ verb is marked for tense and number like most verbs.

 $^{^{40}}$ Existence can also be expressed with the lexical entry *kojutjun unena-l* "existence have-INF." However as is the case for the English item *to exist*, this string is pragmatically restricted to concepts or technical jargon.

The existential interacts with negation like a verb, requiring the negative morpheme to be immediately before it as seen in (145). Similar to the examples above, the negative existentials are also not built from interrogatives. As in English, the negative morpheme on the existential is the same negation found on any declarative sentence. WA expresses possession using *unenal* "to have" instead of using the existential morpheme as seen in (146).

- (145) kərataran-i-n met∫-(ə) meg-ə t∫i-ga
 library-GEN-SPFC in-(SPFC) one-SPFC NEG-∃.3S
 'There isn't anyone in the library.'
- (146) Aram-i-n dun-ə atamant-i senjag-mə *ga/uni Aram-GEN-SPFC house-3S.POSS diamond-GEN room-INDEF *∃.3S/has.3S 'Aram's house has a diamond room.'

In reference to the *pivot* position of existential sentences, there do not seem to be any determiners blocked from such a position as they are in English like in (147) and (149), versus (148) and (150) of WA. Therefore such a definiteness restriction seems to not hold in WA.

- (147) *Aren't there all students in the class?
- (148) tasaran-i-n metſ-(ə) amen aſagerd-ner-ə TʃI-GA-N? classroom-GEN-SPFC in-(SPFC) all student-PL-SPFC NEG-∃-3P? "Aren't there all the students in the classroom?"
- (149) *Aren't there most students in the class?
- (150) tasaran-i-n met∫-(ə) a∫agerd-ner-u-n medzamasnutjun-ə classroom-GEN-SPFC in-(SPFC) student-PL-GEN-SPFC majority-SPFC
 T∫I-GA-N?
 NEG-∃-3P?
 'Aren't there most students in the classroom?'

2.5 Negative Morphemes

In this section I go through the different negative elements in Western Armenian. Most of these morphemes will come into play in Chapter 3 when discussing negative concord. As I demonstrate below, the negative markers found in Western Armenian follow cross-linguistic trends (Jespersen 1917) that negative morphemes precede whatever phrase or morpheme they negate. This is seen with the verbal and prohibitive negative markers, the negative preposition *arants*, the negative 'no' *votf* in the n-words and all of the bound negative morphemes.

2.5.1 Verbal Negation

Verbs, auxiliaries, and modals are negated with the bound prefix $tf+(i/\partial)$.⁴¹ No clause, word or morpheme can intervene between the negative marker and the verb. For a historic discussion of this negative marker see Donabédian (1999:1-3). Throughout the thesis I gloss this marker as NEG. In (151) and (152) this negative marker is prefixed directly to the main tensed verb with the perfective and the subjunctive form of the verb respectively.

- (151) Aramə t**fə**-vazets Aram NEG-run.3S.PERFV 'Aram did not run.'
- (152) tun jete t**J**-ude-s, bidi anotena-s 2S.NOM if NEG-run-2S, will hungry-2S 'If you don't eat, you will become hungry.'

The verbal negative marker also appears with verbs that have been nominalized as with the following examples (153) and (154). Possessive, definite or case marking shows that these verbal forms act as nominals. Also the lack of tense or agreement marking demonstrates that these forms are different from their verbal counterparts in (152) and (151).

⁴¹Speakers vary as to what vowel they utter after the negative consonant tf-, namely either ϑ or *i*. Usually in slower speech *i* is realized, whereas in rapid speech ϑ is sometimes used. The *prescriptive* norm is to use *i* for the 3S non-past imperfective form like in $tfi+k \vartheta$ rer '3S does not write' with all other forms taking ϑ . Before a vowel initial verbal root no vowel intervenes. This marker precedes the verbal root. The only other morphemes that precede the verb, as stated in previous subsections are the prohibitive marker mi-, the future marker *bidi* and the positive imperfective marker *g*-. All other aspect, tense, person, number markers follow the verb root.

- (153) tfi-ger-adz-əs tun gərna-s ude-l NEG-eat-PERF-1S.POSS 2S can-2S eat-INF 'You can eat whatever I didn't eat.'
- (154) tfi-xose-l-ov tas-əs vertfa-tsu-ts-i NEG-talk-INF-INST lesson-1S.POSS finish-CAUS-PERFV-PAST.1S 'Without talking, I completed my lesson.'

The next examples demonstrate the cases where the verbal marker attaches to an auxiliary, either e- 'be' or un(e)i- 'have.' As was the case with the main verbs, the negative marker prefixes onto the auxiliaries. The examples in (155) and (156) show negation with the verb *bedk* 'need' accompanied by 'have'.⁴²

- (155) tfur bedk tf-uni-m water need NEG-HAVE-1S
 'I don't need water.'
- (156) Aramə bedk tf-un-etsadz-n-al kənets Aram need NEG-HAVE-PERFV-3S.POSS-AL buy.PERFV.3S 'Aram even bought the things he didn't need.'

Tense and agreement are realized on the auxiliary 'be' with the perfect -adz and evidential -er forms of the verb. The auxiliary must follow the perfect marker in the positive as seen in (157). The negative marker attaches to this auxiliary. However the negated auxiliary now has the option of either preceding or following the perfect marker as seen in (158).⁴³

- (157) jes hon (*e-m) kats-adz e-m 1S.NOM there (*BE-1S) go-PERF AUX-1S 'I have gone there.'
- (158) jes hon (tf-e-m) kats-adz (tf-e-m)1S.NOM there NEG-AUX-1S go-PERF NEG-AUX-1S 'I have not gone there.'

⁴²The morpheme *bedk* 'need' usually reduces to *bet* before the verbal negative marker tf-.

 $^{^{43}}$ A suggestion for further investigation is that AUX in Western Armenian requires something to precede it. This would be somewhat similar to the analysis of the AUX in EA as a second-position clitic (Kahnemuyipour and Megerdoomian 2011).

The negative of the imperfective and progressive also requires an auxiliary 'be' that hosts the negative, tense and agreement markings as seen in (159). However, to note, unlike with the perfect, the positive imperfective seen in (160) does not appear with an auxiliary. I discuss this these interactions in more detail in the following section §2.6.2.

- (159) tun mis tf-e-s ude-r-(gor) 2S.NOM meat NEG-BE-2S eat-IMPFV-(PROG) 'You do (are) not eat(ing) meat/beef.'
- (160) tun mis g-ude-s-(gor) 2S.NOM meat IMPFV-eat-2S-(PROG) 'You (are) eat(ing) meat/beef.'

Lastly this negative marker can attach to the modal bid(i) 'will' again as a prefix as seen in (161). This modal never hosts any aspect, tense or agreement morphology.

(161) Aramə vaʁə t∫ə-bidi vaze
 Aram tomorrow NEG-will run.3S
 'Aram is not going to run tomorrow.'

2.5.2 n-words

In this section I present phrases, called n-words⁴⁴, that contain *votf*, the word corresponding to English 'no.' On its own *votf* is the negative answer to a polar question seen in (162).

(162) Aram-in desar? > votf Aram-DAT see.PERFV.2S > no 'Did you see Aram? > No.'

There is no morphosyntactic difference, with respect to case or any other marking on any arguments of the verb, between a sentence with an n-word and a sentence with an indefinite. This is demonstrated by the following pair where the first, (163) is a positive and the second, (164) contains the corresponding n-word.

(163) Aramə pan-mə gerav Aram thing-INDEF ate.3S 'Aram ate something.'

⁴⁴Terminology after Laka (1990), referring to negative indefinite words like English no one, nothing.

(164) Aramə votf-meg-pan gerav Aram no-one-thing ate.3S 'Aram ate nothing.'

The n-words that are formed from *votf*- come in two forms in Western Armenian, either with or without *meg* 'one.' The table below presents the two sets of n-words found in WA with their non-negative counterparts. The second set of n-words are more agglutinating and can be extended to any noun phrase as in *votf-meg-afagerd* 'not-one-student.'

	non-negative	n-word1	n-word2
person	megə	vot∫-vok	vot∫-megə
	one	no-individual	no-one
	'someone'	'no one'	'no one'
place	der-mə		vot∫-meg-der
	place-INDEF		no-one-place
	'somewhere'		'no where'
thing	pan-mə	vot∫-int∫	vot∫-meg-pan
	thing-INDEF	no-what	no-one-thing
	'something'	'nothing'	'nothing'

A peculiarity needs to be explained from the forms above, namely the presence of a $-\partial$ marker within indefinite forms like 'someone.' This is the specificity marker discussed in §2.2.2. There is inter-speaker variation as to which form of the n-word is used, n-word1 or n-word2. The overall tendency is to use the n-word2 forms. The speakers who strongly preferred n-word2 noted that n-word1 sounds either too formal or like Eastern Armenian words. The n-words are not restricted as to in what position they can occur in a sentence as seen from the five examples below.⁴⁵

Subject:

(165) jergrafarz-e-n jetk, **votf-meg-pan** godər-v-ets-av earthquake-ABL-SPFC after, no-one-thing break-PASS-PERFV-PAST.3S 'Nothing broke after the earthquake.'

⁴⁵These examples need contexts to be felicitous. Also, as noted by some speakers, these sentences are sometimes not naturally occurring in conversations since there is a strong preference to use verbal negation instead of an n-word. What I am interested here is the range of possible structures in reference to n-words. Speakers find all of these examples acceptable, even if they may or will never utter them.

Direct Object:

(166) Aramə votf-meg-pan desav Aram no-one-thing see.PERFV.3S 'Aram saw nothing.'

Indirect Object:

(167) Arame at χentsor-e vot f-meg benag-i vera terav
 Aram that apple-SPFC no-one plate-GEN on put.PERFV.3S
 'Aram didn't put that apple on any plate.'

Possessive:

(168) **votJ-meg**-un goJig-ə garmir e no-one-GEN show-SPFC red is.3S 'No one's shoe is red.'

Locative Adjunct:

(169) vot f-meg-deβ-en gərna-s gabujd kəlҳarg kəne-l no-one-place-ABL can-2S blue hat buy-INF 'You can't buy a blue hat from anywhere.'

2.5.3 Other negation bearing morphemes

Besides the verbal negative marker tf- and the n-words discussed above, there are many other types of negative morphemes in Western Armenian. Three such negative markings are seen in this section. In later sections I will briefly discuss the interaction of these other negative elements with verbal negation and n-words.

2.5.3.1 Prohibitive mi-

The Armenian prohibitive marker is mi. This marker precedes the imperfective verb stems. Number is marked with the suffix -r for 2S and -k for 2P. This is seen in (170).

(170) **mi** morna-r!, **mi** morna-k! PROH forget-2S!, PROH forget-2P! 'Don't forget!' Unlike Eastern Armenian seen in (171) the WA prohibitive is not formed by simply prefixing the prohibitive marker onto the positive imperative as seen in (172).

(171) **ker**! mi-**ker**! Eastern Armenian eat.2S! PROH-eat.2S! 'eat! don't eat!'

(172) ger! mi-ude-r! Western Armenian eat.2S! PROH-eat-2S 'eat! don't eat!'

2.5.3.2 Negative Preposition arants

The preposition *arants*, corresponding to English 'without', expresses negation over either a nominal phrase as in (173) or a non-tensed verb phrase as in (174). Unsurprising for a head-final language, most of the adpositions in WA are postpositions. However as seen from the examples below *arants* 'without' is a preposition, following the pattern of negative markers preceding their complements.

- (173) Aramə [arants madid-i] tasaran kənats Aram without pencil-DAT class go.PERFV.3S 'Aram went to class without a pencil.'
- (174) Aramə [arants ude-l-u] tasaran kənats Aram without eat-INF-DAT class go.PERFV.3S 'Aram went to class without eating.'

2.5.3.3 Bound adjectival negation

There are a few morphemes, $\{an$ -, ab(a)-, d-, $d\partial z$ - $\}$ to name a few, that attach to adjectives to negate their meanings as seen in (175) taken from Sakayan (2000:302). As has been the case for all negative markers, these morphemes are also prefixes.

(175) an-hujs, ab-eraχd, də-ked, də3-kujn un-hope, un-grateful, un-know, un-color 'hopeless, ungrateful, ignorant, pale'

2.6 Negation first and its morphological effects

This section examines how the Western Armenian morphological restriction of negative morphemes appearing phrase initially interacts with other elements of the grammar, mainly verbal aspect.

As I presented in §2.3, verb roots in Western Armenian attach to one of three theme vowels, $\{-a-, -e-, -i-\}$, resulting in what I call a verb stem. Sometimes the imperfective root contains a -n- absent in the perfective. Examples of each verb stem from each verb class are seen in the table below. These classes are relevant when discussing verbal aspect.

	verb stems		verb stems	
'read'	gart-a-	'forget'	mor-na-	
'sing'	jerk-e-	'enter'	məd-ne-	
'stick'	pag-i-	'arrive'	has-ni-	

2.6.1 Morphological Restrictions

In this section I will present a few descriptive restrictions on the morpho-structures of verbs and negation. There are no words in WA that contain two prefixes unlike the suffixes which can stack as seen below.

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(176) kər -utjun -ner -u -s letter -ation -PL -GEN -POSS.1S 'of my writings'

Also the majority of the affixes in WA are suffixes. Looking at a recent grammar of WA for a list of derivational affixes, there are 16 prefixes vs. 37 suffixes (Sakayan 2000). All nominal declension, possessive, number and definiteness morphemes are suffixes and all but two verbal affixes are suffixes.⁴⁶

Two important points that seem to hold are that all negative markers precede their complements and that two prefixes do not occur on the same phrase/word as in (177). This also extends to the verbal negative marker which can not attach twice as seen in (177), and can not be a suffix as seen in (178).

 $^{^{46}}$ The imperfective marker g- and the negative marker tf- are the only exception, which are discussed below.

- (177) *t∫ə-t∫i-gera NEG-NEG-ate.1S
- (178) *gera-tf ate.1S-NEG

2.6.2 Negation and Aspect

In this section I look at the interaction of aspect and negation. The perfective form of the verb is the most straightforward and uncomplicated of the aspects. The perfective marker appears as a suffix on a verbal stem and is followed by tense and agreement marking as seen in (179) and (180). The perfective in WA only appears with the past marker.

(179) vaz -ets -i -nk run -PERFV -PAST -1P 'We ran.'

(180)



The negative form of the perfective is also straightforward. The verbal negative marker tfi- appears as a prefix on the entire AgrP of (180) as seen in (181). This preference for initial position in its NegP phrase furthers the notion of negation needing to be realized as soon as possible in an utterance, as presented above. Therefore some Align-Left constraint for negation seems to be ranked high in WA over the general constraint of head-finality, which is seen with the perfect construction more clearly later in this subsection when AUX are involved.

(181) t∫ə- vaz -ets -i -nk NEG- run -PERFV -PAST -1P 'We didn't run.'



A similar morphological structure is seen for the subjunctive form of the verb as in (183). Tense and agreement attach directly onto a verb stem. Negation as in the perfective simply prefixes on to the positive verbal subjunctive as in (184).

- (183) bidi /jete /toʁ vaz -e -i -nk will /if /let run -vc -PAST -1P 'We were going to run, if we were going to run...'
- (184) bidi /jete /tos t**ʃi-** vaz -e -i -nk will /if /let NEG- run -VC -PAST -1P "We were not going to run, if we were not going to run..."

The next set of verbs are those with the perfect marker -adz. The evidential forms of the verbs, marked with -er, behave parallel to that of the perfect and therefore will not be discussed any further. When a verbal stem attaches to the perfect suffix an auxiliary is used for both positive and negative forms.

(185) vaz -adz e -i -nk run -PERF AUX -PAST -1P 'We had run.'

(182)



The perfect suffix -adz is never followed by other verbal morphology like tense or agreement marking. This is similar to the infinitive morpheme -l and the negative imperative and negative imperfective morpheme -r. This leaves the tense and agreement morphology hostless, and like many other languages an auxiliary is inserted.⁴⁷ In the case of Armenian the auxiliary is 'be' e-. The result is a verb stem with the perfect marker followed by the auxiliary verb 'be' with tense and agreement as seen in (185) and in the tree below.



As discussed earlier verbal negation is a prefix. I have claimed that negation is merged fairly high in the verbal structure, namely above a TP (Khanjian 2011), resulting in the tree below for (188). Unlike the perfective form of the verb, the perfect form does not host the negative prefix tfi-. Instead, the auxiliary selected by the perfect suffix takes this negative marker.

(188) vaz -adz t∫- e -i -nk run -PERF NEG- AUX -PAST -1P 'We hadn't run.'

(186)

(187)

⁴⁷See Bjorkman (2011) for the morphosyntax of auxiliaries like BE/HAVE.



An interesting optionality arises with the negative perfect. The negated auxiliary can either precede or follow the verb stem+perfect as seen with (188) and (190). The pre-verbal option of the auxiliary is not found for the non-negative form. This can be accounted for by the strong preference for negative morphemes to be word initial. However this still does not explain why the post-verbal option would still be available.⁴⁸

(190) t∫- e -i -nk vaz -adz NEG- AUX -PAST -1P run -PERF 'We hadn't run.'

The effects of negation strongly preferring the pre-verbal position is seen with the interaction of the imperfective marker with tf. The example in (191) shows that the imperfective marker g- in the positive precedes the verb root. However when verbal negation is added the imperfective marker g- disappears and a negative suffix -r is used as seen in (192).

(191) **gə-** vaz -e -i -nk IMPFV- run -VC -PAST -1P 'We used to run.'

(189)

 $^{^{48}}$ This is another instance of where AUX seems to not want to be the first verbal morpheme. I leave this for future research.

(192)



(193) t∫- e -i -nk vaz -e -r NEG- BE -PAST -1P run -VC -IMPFV.NEG 'We used to not run.'



There is more going on between (193) and (194) than just the change in location and form of the negative marker. In the positive the tense and person/number subject agreement markers follow the verb stem. However when the verbal negative marker tf- is added, it does not attach to the verbal stem. The auxiliary BE is introduced into the verbal structure which the tense.number.person suffix onto, with the verbal negative marker prefixing to it. This seems to be a case similar to do-support in English (Bjorkman 2011). In the case of WA the auxiliary BE is used to host the T and Agree markers, as well as the negative marker. However the AUX does not appear for the perfective aspect vs. the other aspects which can be accounted for following Bjorkman (2011).

The negative marker has priority over the imperfective marker in terms of being a prefix, since as seen in the examples below, they cannot stack like in (195) or (196).

(195) *gə-t∫-ude-m IMPFV-NEG-eat-1S

(196) *t∫ə-g-ude-m NEG-IMPFV-eat-1S

In the negative in (193), a suffix appears for all person/number/tense for the imperfective, namely -r. This marker is also found for all the prohibitive 2S forms of verbs. Along with the prohibitive marker mi as seen from the example below, they contain the negative suffix -r. These examples are parallel to the negative imperfective where there are two morphemes required to give us the one negative interpretation. Both of these negative forms contain the suffix -r.

(197) vaze! mi-vaze-r, χαʁa!, mi-χαʁa-r!
 run! PROH run-NEG, play!, PROH play-NEG
 'Run! Don't run!, Play! Don't play!'

2.6.3 Causative and negation

There are two ways to form a causative in WA. The first is with a bound suffix tsa- as in (198) and the second is with the free morpheme dal "to give" as in (199). Certain verbs only allow for the second method of causativization as seen in (199). The causative morpheme -tsa- takes the VC -ne-. For differences between these two causativization strategies see Megerdoomian (2002).

		infinitive	causative infinitive
	'read'	gart-a-l	gart-a-tsə-ne-l
	'sing'	jerk-e-l	jerk-e-tsə-ne-l
(198)	'slip'	sah-i-l	sah-e-tsə-ne-l
	'forget'	mor-na-l	mor-tsə-ne-l
	'enter'	məd-ne-l	məd-tsə-ne-l
	'arrive'	has-ni-l	has-tsə-ne-l

⁽¹⁹⁹⁾ panal 'to open' \Rightarrow panal dal 'to make open', *panatsənel

The negative marker can appear on either verbal stem for the case of the analytical causatives seen in (199), seen in (200) and (201). In these cases, the scope of negation is different. If the infinitival verb hosts negation then the negative meaning is embedded within the causative structure. If the 'give' da- causative morpheme carries negation as in (201) then the entire clause carries the negative meaning. This follows from the analysis of

the negative morphemes seen in Chapter 3, where I will show that different meanings arise between (200) and (201) when introducing a second negative morpheme.

- (200) Aram-in t∫ə-pana-l dəvi Aram-DAT NEG-open-INF give.PERFV.1S 'I made Aram not open it.'
- (201) Aram-in pana-l t∫ə-dəvi Aram-DAT open-INF NEG-give.PERFV.1S 'I didn't make Aram open it.'

If the verbal negative marker attaches to the infinitival stem then the negative is interpreted on that verb and if the negative marker prefixes onto the "give" causative verb, then that is the verb that carries the negation as seen from the examples in (202) and (203).

- (202) t**∫→**-vaze-ts→ne-l gu-da-m NEG-run-CAUS-VC-INF IMPFV-give-1S 'I will make you make x not run.'
- (203) vaze-tsə-ne-l t∫-e-m da-r run-CAUS-VC-INF NEG-BE-1S give-IMPFV.NEG 'I will not make you make x run.'

The auxiliary that hosts the verbal negative marker introduced on the imperfective verb cannot scramble to precede the infinitival verb as seen in (204). This shows that the preference for negation being first is restricted to a domain smaller than a sentence.

(204) ***t∫-**e-m vaze-tsə-ne-l da-r

2.6.4 Wrap up

In this section I have shown that negative morphemes, whether nominal or verbal, have a strong preference to be phrase initial, in a domain smaller than a CP. Along with the fact that a phrase cannot carry two prefixes, the desire for negation being initial creates some competition in the verbal paradigm, specifically with the imperfective marker g-. Negation also creates optionality with the placement of the auxiliary present with the perfect parker -adz.

2.6.5 Verb raising

A final note on verbs in WA. There is no evidence of verb raising for Western Armenian verbs. Similar to other SOV languages, which allow for some degree of scrambling, like Japanese, it is hard to test for raising of verbs. I assume that verb raising does not occur in WA, though nothing in what follows crucially hinges on this.

2.7 Particles

Having established details regarding the verbs and related phrases, I will now move on to particles that take these vPs and TPs and form larger clauses. All of the particles discussed in this section have multiple meanings and appear in a number of environments. I don't assign a specific meaning to any of them in the glosses for this reason. The goal of this section is to present these morphemes. I have placed these particles into three groups seen in (205). A considerable chunk of this section is devoted to the first group of particles, which are the relevant morphemes of the concord structures analyzed in Chapter 4.

particles	functions	
ne	cond, temp, ever, or	
vor	that, which, ever, Q	
te	that, or, and	
al	also, ever, even	
ja	disc old, exc	
mə	Q	
ama	but	
de	so that, and try to	
be, ha, dzo, ka	frustration, disappointment	

The first set, $\{ne, vor, te, al\}$ are native Armenian clitics, found as far back as Middle and Classical Armenian. The second set, $\{ja, mo, ama, de\}$, have been introduced into Western Armenian by Turkish. Their usage is strictly in the spoken language as I discuss in their corresponding sections below. The first two sets are particles that head some nonexclamative phrase, unlike the last group which are strictly used as exclamations. The last group of particles, $\{be, ha, dzo, ka\}$ are exclamatory syllables, which I leave for future research.

2.7.1 -ne

The clitic -ne is used strictly in spoken Western Armenian, as opposed to the written language or Eastern Armenian.⁴⁹ The particle in question is used by all generations, economic classes and genders. There are four main contexts where -*ne* appears: conditionals, temporals, universal 'ever' clauses and as one of the methods of disjunction. For all four of these contexts, non-*ne* headed phrases can be and are used as I will show below.

⁴⁹The prescriptive grammar books usually lack any mention of or discuss the usage of this suffix, similar to the progressive marker *gor*, which is also only found in the spoken language.
2.7.1.1 Conditionals/Temporals

A method of forming a conditional in WA is with the head-final -ne as in (205). This enclitic attaches to a tensed verb and is usually found phrase finally.

(205) [dun erta-m-ne], dʒaʃ bid ude-m home go-1S-NE, food FUT eat-1S 'If/when I go home, I'm going to eat food.'

WA also has a head-initial lexical item for the conditional: 'if' jete.

(206) [jete dun erta-m], dʒaʃ bid ude-m if home go-1S, food FUT eat-1S 'If I go home, I'm going to eat food.'

However, (205) can be uttered when the antecedent is known to be a fact, as opposed to just a possibility, which was the case for the conditional interpretation. The *-ne* in these contexts contributes a 'when' interpretation that can be expressed with the head-initial *jerp* 'when' as well as seen in (207).

(207) [jerp dun erta-m], dʒaʃ bid ude-m when home go-1S, food FUT eat-1S 'When I go home, I'm going to eat food.'

Both *jete* 'if' and *-ne* can co-occur as in and both *jerp* and *-ne* can co-occur in the same clause as seen in (208), which I go into more detail and analyze in Chapter 4.

(208) jete/jerp Aramə dun erta-ne, jes-al dun g-erta-m if/when Aram home go.3S-NE, 1S.NOM-AL home IMPFV-go-1S 'If/When Aram goes home, I'll go home too.'

An interesting difference between the conditional and the temporal constructions is that *jete* 'if' can surface sentence finally but *jerp* can't as seen in (209) compared to (210). This indicates a structural difference between 'if' and 'when', and since 'when' *jerp* is [+wh], it being obligatorily raised to a position left of the verb makes sense.⁵⁰

⁵⁰Western Armenian [wh]-phrases front to the pre-verbal position, but can surface in higher positions. Examination of question formation is left for future research.

- (209) Aram-in bid hartsənes **jete**, jes t∫-em hartsəne-r Aram-DAT FUT ask.2S if, 1S.NOM NEG-BE.1S ask-NEG.IMPFV 'If you are going to ask Aram X, then I won't ask him X.'
- (210) *Aram-in bid hartsenes jerp, jes t∫-em hartsene-r Aram-DAT FUT ask.2S when, 1S.NOM NEG-BE.1S ask-NEG.IMPFV

Putting the facts of *-ne* and *jete* co-occuring, as in (208), and the ability for *jete* to occur phrase finally, as in (209), raises the possibility of the two morphemes co-occuring at the end of a clause. This is not possible for a sentence like (209), seen in (211), however with a verb that takes an infinitival complement, *-ne* attaches to the tensed verb and *-jete* is possible to be phrase final as in (212).⁵¹

- (211) *Aram-in bid hartsənes-**ne jete**, jes t∫-em hartsəne-r Aram-DAT FUT ask.2S-NE if, 1S.NOM NEG-BE.1S ask-NEG.IMPFV
- (212) Aramə gərna-**ne** Hagop-in dʒaſ epe-l **jete**, lolig-ner-ə gə-kəne-m Aram can.3S-NE Hagop-DAT food cook-INF if, tomato-PL-SPFC IMPFV-buy-1S 'If Aram can cook Hagop a meal, I'll buy the tomatoes.'

The example in (212) is an argument for *-ne* and *jete* not heading the same projection. I will analyze the structure of these *-ne* conditionals in Chapter 4.

Another method of forming temporals is with the use of the particle vor as in (213). The *-ne* marker can also be added to this temporal construction as will be discussed in Chapter 4. There is a clause initial restriction on vor, which will be expanded upon in §4.4.3, demonstrated in (214), comparing other possible heads for the same construction *jerp* 'when' and *jerpvor* 'whenever'.

- (213) Aramə vor dun erta, tert-ə bid garta Aram C home go.3S, book, newspaper-SPFC FUT read.3S 'When Aram goes home, he will read the newspaper.'
- (214) jerp/jerpvor/*vor jes jerp/jerpvor/vor dun jerp/jerpvor/vor erta-m, when/whenever/*C 1S.NOM home go-1S, kezi gə-heratsajne-m
 2S.DAT IMPFV-call-1S
 'When I go home, I'll give you a call.'

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⁵¹This structure needs appropriate intonation.

Each speaker tends to use either of these methods for building conditionals and temporals. However there is an overall preference which speakers report for having certain phrases be head-final. These are among those phrases. They report a head initial phrase to feel incomplete or being 'not smooth'. These speakers tend to use both of the markers like (215) and like in the constructions in Chapter 4.

(215) (jerp) dzeranam-ne, sud agra bid bedk unenam (when) get.old.1S-NE, fake teeth FUT need have.1S 'When I get old, I will need fake teeth.'

One final comment on conditional -*ne* before moving on to free relatives. -**ne** can head 'if' CP complements, but not 'that' complements as seen in (216) with the verbs 'ask' vs. 'thinks'. This shows that -*ne* is similar to *jete* in being able to head a CP clause. The parallel sentence with *jete* heading the complement clause is seen in (217).

÷-

- (216) Aramə hartsuts/*gardzets dun bid ertas-ne Aram asked.3S/*thought.3S home FUT go.2S-NE 'Aram asked if you are going to go home.'
- (217) Aramə hartsuts/*gardzets jete dun bid ertas Aram asked.3S/*thought.3S if home FUT go.2S 'Aram asked if you are going to go home.'

2.7.1.2 Wh-indefinites

The third context for -ne is in free relatives, as in (218). All of the question words can form free relatives.⁵²

(218) Aramə ur abri-ne, bid vajle Aram where live.3S-NE, will enjoy.3S 'Wherever Aram lives, he will enjoy [that place].'

As with the conditional and temporal uses of ne, a free relative is formed with just the C 'that' vor as in (219). This C head immediately follows the *wh*-phrase of the free relative.

(219) Aramə ur-**vor** abri, bid vajle Aram where-C live.3S, will enjoy.3S 'Wherever Aram lives, he will enjoy [that place].'

⁵²All the question words, except for 'why' which cross-linguistically seems to be the case.

There is also a third method of forming free relatives, namely with -al as in (220). Similar to *vor*, this morpheme also attaches to the right of the *wh*-phrase. It is possible for both to co-occur as in (221), in which case *vor* precedes -al.

- (220) Aramə ur-al abri, bid vajle Aram where-AL live.3S, will enjoy.3S 'Wherever Aram lives, he will enjoy [that place].'
- (221) Aramə ur-**vor-al** abri, bid vajle Aram where-C-AL live.3S, will enjoy.3S 'Wherever Aram lives, he will enjoy [that place].'

Any pair or all three of the $\{-ne, vor, -al\}$ morphemes can co-occur to form free relatives as will be discussed in Chapter 4. It seem that **-ne** can head an argument free relative as in (222), showing that these free relatives are possible in non-adjunct positions.

(222) Aramə vorun desne-**ne** bid hampure Aram who.ACC see.3S-NE FUT kiss.3S 'Aram will kiss whoever he sees.'

2.7.1.3 Alternative Disjunctions

The fourth environment where -ne is used is with the negative 3S form of 'be' tfe forming 'or'. There are two interpretations for -ne when combining with this tfe 'NEG 3S BE' as seen in (223) and (224).

- (223) pilafit hed [hav tfe-ne tsug] g-uzes? pilaf.2S.POSS with chicken NEG.BE-NE fish IMPFV-want.2S? 'Do you want chicken, or_{alt} fish with your pilaf?'
- (224) tasət əre! tfe-**ne** bid batfəvis lesson.2S.POSS do.2S.IMP, NEG.BE-NE FUT punished.2S 'Do your homework! or else you will be punished.'

The first, (223), is a forced choice disjunction, commonly referred to as an alternative construction, which I will get back to below. The second is a coordinator between two TPs, where the coordinator is preceded by an imperative command and followed by a consequence. This is similar to the construction in English corresponding to *or else*, given in the translation in (224). Going back to (223), as was the case for the other environments

of -ne, another disjunctive morpheme gam 'or' exists, seen in (225).

(225) pilafit hed [hav **gam** tsug] g-uzes? pilaf.2S.POSS with chicken or fish IMPFV-want.2S? 'Do you want chicken, or fish with your pilaf?'

However these two forms of disjunction are not equivalent. Haspelmath (2000) and Mauri (2008:26) following Dik (1968:276), discuss the manner of presenting disjunctions and how the interpretations differ, comparing standard disjunction and interrogative disjunction. Both present the hearer with a set of alternatives, the interrogative disjunction requires a selection from among the alternatives. In English this distinction is made with intonation comparing (226) with (227) or (228) with (229)

- (226) Did John or Bill come to fix the faucet? (continuous rising tone) Answer \Rightarrow {Yes, No, John did, Bill did}
- (227) Did JOHN, or Bill come to fix the faucet? (focus on first alternative and a falling tone starting with the disjunct) Answer \Rightarrow {John, Bill, #yes, #no}
- (228) Do you want cookies or brownies? (rising intonation) Answer \Rightarrow {cookies, brownies, no}
- (229) Do you want cookies or brownies? (rise, fall) Answer \Rightarrow {cookies, brownies, #no}

In the examples in the pairs above, with the rising intonation, a standard disjunct interpretation is realized. The hearer can answer yes or no to the question uttered. However with the rise, fall intonation a forced choice question is presented. In English both of these questions utilize the same *or* coordinator. WA has an equivalent 'or' morpheme, *gam*, which can be used for both. However if one were to use the disjunct comprising of *-ne* then only the second possible intonation structure is possible. There are two other alternative 'or' heads used in Western Armenian, *tfe-te*, *te-votf* seen in (230). These are parallel to the *tfe-ne* constructions and force a choice.

(230) guzes dants t∫e-te/te-vot∫ salor? want.you pear NEG.BE.3S-TE/TE-no plum 'Do you want pears or plums?' It is interesting to note that all three of the forced choice disjuncts are built from a C head -ne, te, whose one of many functions is to head conditional clauses and a negative morpheme votf, tfe. This follows the typological observation and analysis presented by Mauri (2008) of alternatives, where certain languages form alternatives by utilizing a conditional morpheme, along with a negative morpheme.

A summary of the difference environments where -ne is used is found in the table below.⁵³

meaning	ne	non-ne		
if	[]-ne,	jete [],		
when	[]- ne ,	jerp/vor [],		
Q-ever	Q []-ne,	Q-vor/al [],		
or	[] tʃe-ne []	[] $gam/te-votf/tfe-te$ []		

2.7.1.4 -ne's past

The clitic in question -ne is not a recent addition to the Armenian language. According to Adjarian (1957) this morpheme started appearing in Middle Armenian texts as the head of the consequent phrase of a conditional sentence, with the form na as in (231).

(231) jete/te ..., na ... if ..., NE ... 'If ..., then ...'

(i) (moji) John-ga ki-tara...
 (if) John come-TARA...
 'If John comes...'

Korean has a suffix mj = n which is similar to Japanese *tara* where both a conditional and a temporal interpretation is possible. The clause can be disambiguated with the addition of a conditional adverb like *manil* or *manjak* as seen in (ii). (p.c. Youngah Do, XXXX)

(ii) (manil) John-i Mary-lul po-n-ta-mjən...
 (if) John Mary see-PRES-DECL-MYEN...
 'If John sees Mary...'

Korean *-mjən* attaches to a verbal negative marker *ani*- to form a disjunct head. Both DPs and TPs can be coordinated with *ani-mjən* as was the case for *tfe-ne* of WA. Other languages following this pattern include Nànáfwe, Lai, Lezgian (Mauri 2008).

In Zulu uma is used for 'if/when'. This morpheme can combine with na, a question particle, to give 'or' *noma*. To get free relatives like those in WA with *wh*-phrases and *-ne*, Zulu combines *noma* with *wh*-phrases. (p.c. Claire Halpert).

 $^{^{53}}$ Cross-linguistically Western Armenian -*ne* is not a unique suffix in terms of its possible semantic usages. For example Japanese *tara*, Korean -*myen*, or Zulu *uma*.

The suffix *-tara* in Japanese is used for both conditional and temporal clauses as seen in (i). An adverb like mofi 'if' can be inserted to force a conditional reading. However unlike WA the suffix *-tara* is obligatory, even in the presence of mofi. (p.c. Yasu... XXX)

Over time na began attaching to the verb in the preceding phrase and the head of the antecedent *jete/te* became optional. Around in the 19th century, the dialects of Armenian, mostly located in the Ottoman Empire that carried over na from Middle Armenian raised and destressed the vowel resulting in either *-ne* or *-nə*, giving a structure like in (232).

(232) (jete) ... Verb+ne/nə, ... (if) ... Verb+NE, ... 'If ..., then ...'

Speakers of the Modern Western Armenian dialect that I examine in this paper utilize the -ne form of this suffix. ⁵⁴ A summary of the history is given in the box below.

History of Armenian Conditionals: Adjarian (1957)

- Classical Armenian: jete/te head initial of protasis
- Middle Armenian: jete/te head of protasis, na, na aba, na aha head of consequent jete Aram wants to eat, na he should buy food

- Over time this **na** cliticized to the verb in the protasis **jete** Aram wants to eat-**na**, he should buy food
- jete becomes optional
- In *Bolis* dialect: $na \Rightarrow ne$, dialect which Western Armenian was standardized to

A few linguists, besides Adjarian have pointed out and presented data on the morpheme -ne. Aydenian (1866) lists -ne as one of the coordinator. Vaux (1993) mentions the marker while discussing the Aslanbeg dialect of Armenian.⁵⁵ Donabedian (2001b) which analyzing the evidential marker in WA, gives these two examples, the first, (233), is a conditional with the head-initial *jete* co-occurring with -ne. A second example in (234) is an example of a temporal.

(233)	jete gartats-er es- ne	
	if read-evid Aux.2S-ne	
	'If you have read(EVID) them'	[ex. 9 from Donabedian 2001b:434]

(234) ...vertfən Parc Montsouris hasa-ne...
...after Parc Montsouris arrive.1S-NE...
'...when I got to Parc Montsouris...' [ex. 17 from Donabedian 2001b:438]

⁵⁴At least one individual pronounces the suffix as *-nə*: Klashnikof Boghoshttp://www.youtube.com/watch?v=_BtKgK4XiEU Last accessed August 23, 2013.

 $^{^{55}}$ Although he notes a few times that the origin of *-ne* is Turkish, upon personal communication with Vaux, he points to Adjarian stating Middle Armenian as the origin.

2.7.1.5 Properties of -ne

In this subsection I will go through a few properties of -ne, which mostly point to -ne being an enclitic with the few possible interpretations presented in the previous subsection.

-ne is bound and cannot occur as an answer to a question or interjection as in (235). It must attach to a tensed verb, either past or non-past and therefore cannot be found on anything else, like those listed in (236).⁵⁶

- (235) Are you going to class? \Rightarrow *ne "when?" \Rightarrow jerp? "when?"
- (236) infinitive: *vazel-ne (to run) noun: *kirk-ne (book) adv: *arak-ne (fast) adj: *garmir-ne (red) prep: *mech-ne (in) conj: *jev-ne (and)

The restrictions in (236) differ from *jerp* 'when' or the English equivalent 'when', in that the complement of 'if' does not require the overt presence of a verbal or tensed phrase. For example a preposition, seen in (237), or an adjective, seen in (238), is fine given the correct context, whereas it is disallowed for *-ne*.

(237) When [you are] inside, turn on the light.

(238) When [whatever was in the discourse that is relevant is/turns] red, cut the wire.

Both of these sentences have a salient understood elided portion, indicated in the brackets.

One cannot stack -ne's for purposes of combining any two environments as in (239). One such example is a free relative found within a conditional, like 'If for whatever reason you go home...'.

(239) *...udem-ne-ne eat.1S-NE-NE

⁵⁶The examples in (236) are all acceptable phonological strings, but are parsed as X-n-e 'X-SPFC-BE.3S' 'It is the X'.

-ne surfaces post-aux as in (240) and post-aspect as in (241).

(240) ger-adz es-**ne**... eat-PERF AUX.2S-NE 'If you have eaten...'

*ger-adz-ne es...

(241) g-elle gor-ne... IMPFV-leave.3S PROG-NE 'If it is coming out...'

*g-elle-**ne** gor...

When the perfect in (240) is negated, the clitic stays at the right edge of the clause, seen in (242), and does not appear on the AUX.

(242) t∫-es ger-adz -ne... NEG-AUX.2S eat-PERF -NE 'If you have not eaten...'

*t∫-es-ne ger-adz ...

However -ne surfaces pre-infinitival complement, namely on the tensed verb and not its infinitival complement.

(243) Aramə g-uze-**ne** tango arak bare-l... Aram IP-want-NE tango fast dance-INF 'If Aram wants to dance tango quickly...'

*Aramə g-uze tango arak bare-l-ne

Word level stress is usually final in WA. However *-ne* does not take phonological word level stress; the pre-*ne* vowel takes stress. Not only is *-ne* not stressed, it attracts phrasal stress to the immediately preceding vowel as seen by the pair of examples in (244) and (245). Usually AUX, the auxiliary selected by the perfect marker is not stressed as in (244). However with the presence of *-ne*, the AUX gets the stress. This indicates that *-ne* marks a major phrase boundary with respect to the sentence as a whole.⁵⁷

⁵⁷Certain affixes in other languages have similar properties, like the affixal Spanish T.

- (244) Aramə vaz-**á**dz e aram run-PERF AUX.3S 'Aram has ran.'
- (245) Aramə vaz-adz é-ne aram run-PERF AUX.3S-NE 'If Aram has ran...'

Scrambling:

Scrambling is found in many of the phrases in WA. The *-ne* phrases are no exception. Here I point out a few scrambling properties of the constructions presented in the sections above related to *-ne*. As stated earlier *jete*, *jerp*, *vor*, and *al* can co-occur with *-ne*. Arguments of these clauses can scramble to around all four of the head initial morphemes, similar to most adjunct heads which will be discussed later in this chapter in §2.9. In (246) I show that *jerp* 'if' can appear between every argument in the sentence.

(246) (jerp) Aramə (jerp) gato (jerp) ude-**ne** (*jerp)... when Aram (...) cake (...) eat.3S-NE (...)... 'When Aram eats cake...'

Certain -ne-phrases can surface in the middle of other clauses, much like adverbs as in (247). Frequently used phrases, like that in (247), that contain -ne exhibit this property. However more complex phrases as in (248) can only surface on the edges of another clause.

- (247) ([g-uzes]-ne) tun ([g-uzes]-ne) asi ([g-uzes]-ne) vertsur ([g-uzes]-ne) ([impfv-want.2S]-NE) you this put.away 'If you want, put this away.' (more of a polite command)
- (248) [Aramə hasni-ne], jes (*[...]) gato (*[...]) bid (*[...]) ude-m ([...]) Aram arrive.3S-NE, 1S.NOM () cake () FUT () eat-1S () 'If Aram arrives, I will eat cake.'

Moving on to free relative *-ne* constructions, there is a difference between a *-ne* headed free relative and a *vor* headed one. In the absence of *vor*, the *wh*-phrase of the free relative has a strong preference to be in the immediately pre-verbal position, shown in (249).

(249) (*?? int∫) Aramə (*? int∫) Hagop-in int∫ dəvav-**ne**... what Aram what Hagop-DAT what gave.3S-NE 'Whatever Aram gave to Hagop...' The equivalent clause, in the presence of *vor*, opens up the possibility of a few different permutations shown in (250).

(250) (intf-vor) Aramə (intf-vor) Hagop-in (intf- vor) dəvav-ne...

The difference between (249) and (250) can be relegated to *wh*-movement facts of WA. The immediately pre-verbal position is where most *wh*-phrases surface, as in (251). The only other acceptable order is (252), where again the *wh*-phrase is pre-verbal. The *wh*-phrase of a free relative without the complementizer *vor* is expected to be in this pre-verbal position. In the presence of *vor*, the *wh*-phrase has probably raised to the Spec, CP position of the head *vor* and scrambling of the arguments past this CP projection is possible.

- (251) Aramə intf kənets? (SOV) Aram what bought.3S 'What did Aram buy?'
- (252) int∫ kanets Arama? (OVS), *SVO, *OSV, *VOS, *VSO

Here is a summary of the properties of -ne discussed in this subsection. For comparison, I have included *votf* 'no' and *tfe* 'NEG'. There are parallels to these two pairs of morphemes, which will be discussed further in Chapter 4.

	vot∫ t∫-	jete/jerp	-ne
phono	focused	not focused	post-focus
headedness	initial	initial	final
spec/head	head	head	head
meaning	NEG	if/when	if, when, ever, or
\mathbf{scope}	ТР	TP	
morpho	free bound	free	bound

2.7.1.6 Prosodic differences between jete and -ne

In this subsection, extending the analyses in Richards (2010) I account for the difference in prosody between the head-initial CPs and the head-final CPs. The main proposal that I adopt for Western Armenian is that of *Affix Support* (Richards 2010:30), which states that "If any head is an affix, there must be a metrical boundary in the direction in which it attaches."

The first pair of morphemes that support this claim is the difference in prosody between *jete* and *-ne*.

- (253) jete [*IP* Aramə **dun** erta], ... if Aram home go.3S 'If Aram goes home, ...'
- (254) [*IP* Aramə dun erta]-ne Aram home go.3S-NE 'If/When Aram goes home, ...'

The minimal pair (253) and (254) clearly show that with the head-initial free C-head morpheme *jete* the prosodic focus of the IP is assigned to the pre-verbal syllable *dun*. The standard expected F0 peak for an IP without any focused strings is the pre-verbal position in Western Armenian. Therefore the prosody of (253) is unaltered when the C head *jete* is merged onto the IP. However when merging a C head that is an affix, namely *-ne* as in (254), the prosody shifts to the immediately pre-*ne* position, *ta* in this case. This change in prosody is straightforwardly derived from Richard's (2011) Affix Support. It's clear that the C-head suffix is attracting the prosodic peak by adding a progressive marker to the verb complex in (254), as in (255).

(255) [*IP* Aramə dun g-erta-**gor**]-ne Aram home IMPFV-go.3S-PROG-NE 'If/When Aram is going home, ...'

The prosodic peak has shifted to the progressive marker, since this is the morpheme on the verb that is right most and closest to the C-head *-ne* in the CP.

2.7.2 vor

The second particle I will examine is *vor*. This morpheme, which I have glossed as 'C', has already appeared a few times in some of the examples in this chapter. If the specificity marker ∂/n is the most used affix, then *vor* is the most used free standing morpheme. Similar to *-ne*, *vor* has multiple uses and environments. I will be looking at only a few of these environments. The head-initial morpheme *vor* is used in CP complements to certain verbs, in certain relative clauses, in free relatives, in temporals, as the *wh*-word 'which', and as a certain type of question final particle.

2.7.2.1 CP complements

Certain verbs in WA (e.g., gardze- 'think'), take CP complements, similar to those in English, as seen in (256). The CP complements obligatorily follow their verbs and are head initial. This is parallel to Hindi for example, which is also a mostly head final language, however CPs in Hindi are head initial and follow the verb, repeated in (257).

- (256) Aramə gardzets vor Hagopə dun kənats Aram think.PERFV.3S C Hagop home went.3S 'Aram thought that Hagop went home.'
- (257) Ram jaan-taa hai [ki kaun aa-yaa thaa] Ram.M know-IMPFV.MSG be.PRS.3SG that who.M come-PFV.MSG be.PST.MSG 'Ram knows who had come.' Hindi [From Bhatt & Dayal (2007:291) ex 10a.]

There are a few forms of *vor* which mark for case and number. These are the forms used for the different cases and numbers of 'who' *ov* as seen in the table below, which are all built on *vor* except the singular nominative form *ov* 'who'.⁵⁸ For some reason the intrumental case marker is disallowed on *vor* and the postposition *hed* 'with' is required: *vor-u-n hed*.

		SG	PL
	Nom	ov/vor	vor-on-k
(258)	Acc/Gen/Dat	vor-un	vor-on-ts
	Abl	vor-me	vor-on-ts-me
	Inst	*vor-mov	*vor-on-ts-mov

An example of a different form of *vor* being used is seen in (259), where we see the dative form of *vor* heading an embedded interrogative.

(259) Aramə kide vorun desav Aram know.3S C.DAT saw.3S "Aram knows who he saw."

A number of other types of CPs are headed, sometimes optionally by *vor*. For an extensive list see the adposition and adjunct sections of this chapter §2.8 and §2.9. Two examples are with the complement of a preposition, *aratf* 'before' in (260) and the head of *kani-vor* 'for the reason that' in (261).⁵⁹

⁵⁸The Eastern Armenian NOM plural form also uses ov as a root: ov-k-er.

⁵⁹In the two examples below *vor* is obligatory.

- (260) Aramə arat∫-*(vor) dun erta, bid erke Aram before-C home go.3S, FUT sing.3S 'Aram will sing before he goes home.'
- (261) kani-*(vor) Aramə dun kənats, jerkets how.many-C Aram home go.PERFV.3S, sing.PERFV.3S 'Because Aram went home, he sang.'

2.7.2.2 WA Relative clauses

The next major usage of *vor* is as the head relative clauses. *vor* is the head of the CP adjunct of a nominal. However it cannot be used to head a CP adjunct to a name as in (263). This is not a restriction on *human*-DPs since specific humans can also be modified by such clauses as in (264).⁶⁰

- (262) madid-ə vor jereg kənetsi ingav pencil-SPFC that yesterday bought.1S fell.3S 'The pencil, that I bought yesterday, fell.'
- (263) *Aramə vor/ov jereg desa ingav Aram that/who yesterday saw.1S fell.3S 'Aram, who I saw yesterday, fell.'
- (264) a∫agerd-∂ vor jereg desa ingav student-SPFC that yesterday saw.1S fell.3S 'The student, who I saw yesterday, fell.'

Structurally there are two types of relative clauses in WA: one which is Indo-European, headed by *vor* as in (265), and one which is Turkic, which does not contain any *vor* in (266).⁶¹

- (265) kirk-ə [vor Aramə gartats], desa book-SPFC C Aram read.PERFV.3S, saw.1S 'I saw the book that Aram read.'
- (266) [Aram-in gartats-adz] kirk-ə desa Aram-GEN read-PERF book-POSS.3S saw.1S 'I saw the book that Aram read.'

 $^{^{60}}$ For the context of the sentence where Arama is being modified, I am assuming there are multiple individuals who are named Aram. This restriction requires further investigation. Namely, which DPs cannot be modified by a *vor*-clause and what do all these phrases have in common.

 $^{^{61}}$ I will not be discussing the second construction in this thesis. A point to make is that it is similar to the genitive/possessive relative clause constructions found in the Turkic languages. For some discussion and analysis see Ackerman and Nikolaeva (1997) who analyze this construction, comparing it to Dagur, Eastern Armenian, and Vach Ostyak in LFG.

The first construction in (265), is once again a CP adjunct that is to the right of its complement. The relative clause in this example is a CP with a full TP which can stand alone as an independent sentence.

The heads of these relative clauses can agree in number with the DP they modify. Plural DPs have the option of taking either a plural marked C head *voronk* or the singular *vor* as seen in (267). However a non-plural DP (not surprisingly) is unable to be modified by a plural headed CP as in (268).

- (267) a∫agerd-ner-∂ vor-(onk) dun katsin, jerketsin student-PL-SPFC C-(PL) home go.PERFV.3S, sing.PERFV.3S 'The students who went home, sang.'
- (268) afagerd-ə vor-(*onk) dun katsin, jerketsin student-SPFC C-(*PL) home go.PERFV.3S, sing.PERFV.3S 'The student who went home, sang.'

2.7.2.3 Free relatives

As was introduced in the previous section, *vor* is one of the morphemes that can head free relatives, as in (269). For further discussion of free relatives see $\S4.4.3$.

(269) Aramə vorun-vor desne bid hampure Aram who.ACC-C see.3S FUT kiss.3S 'Aram will kiss whoever he sees.'

2.7.2.4 Temporals

Another construction that we saw when discussing -ne, was the temporals, which vor can also be used as a head of as seen in (270).

(270) Aramə vor ka, indzi gant∫e Aram C come.3S, 1S.DAT call.2S 'When Aram comes, call me.'

2.7.2.5 Which?

The restriction of *vor* being unable to be at the left most edge of a clause is lifted when this morpheme is bearing a [+wh] feature. To express 'which', WA utilizes *vor* as seen following three examples. The structure of 'which'-clauses will be expanded upon in §4.4.3.

(271) vor kirk-ə kənetsir? C book-SPFC bought.2S? 'Which book did you buy?'

(272) vor-megə zadetsi-r? C-one chose-PAST.2S 'Which one did you pick?'

(273) **vor**-deß-ət gə-tsavi-gor? C-place-2S.POSS IMPFV-pain.3S-PROG 'Where (on your body) does it hurt?'

2.7.2.6 Q-final vor

A final, somewhat peculiar, construction where *vor* appears is at the very right edge of certain questions, which invoke a feeling of doubt, skepticism and general 'what do you mean??'ness as seen in (274).

(274) ov gu-ka GOR vor? who IMPFV-come.3S PROG C? 'Who's coming, anyways?'

This vor is a question enclitic. It does not bear stress, however it pulls stress to its immediately preceding syllable. In the case of (274), this syllable is the progressive marker, which usually does not get assigned any stress. Comparing (274) to the question without the final vor, seen in (275), the main stress of the sentence is placed on the wh-phrase 'who' ov, which in this case is sentence initial. Therefore the vor clitic is causing the stress to shift all the way to it, on the other side of the question.

(275) OV gu-ka gor? who IMPFV-come.3S PROG? 'Who's coming?' This clitic can attach to any question as seen with 'what' in (276) and (277). The clitic status of *vor* in this context is further supported by the fact that it is obligatorily clause final, even if the object is post verbal as in (277)

- (276) int∫ e ər-adz-ət vor?
 what BE.3S do-PERF-2S.POSS C?
 'What are you doing, anyways, [you have nothing better to do]?'
- (277) Aramə int∫ dəvav Hagop-in vor? Aram what give.PERFV.3S Hagop-DAT C? 'What did Aram give to Hagop anyways?'

Simpson and Wu (2002) report and analyze a similar question clitic found in Taiwanese, namely *kong.* This clitic seems to have similar properties and interpretations as the question clitic *vor* of WA. The parallel between the two languages extends the semantics of the phrases. In both Taiwanese and WA, the morpheme in question is a head-initial morpheme used in many other constructions. However in this specific question type they are found at the end of the clause. For Taiwanese, Simpson and Wu (2002) argue that the IP complement of *kong*, the C head, has raised to the Spec, CP position of *kong*, stranding the C head at the very end of the clause.⁶²

 $^{^{62}}$ At this time it is unclear whether this analysis can be generalized to Western Armenian. I leave this for future investigation.

2.7.3 te

Another (usually) head-initial clitic is *te*. This particle, similar to the other two discussed in this section so far, also has multiple uses, meanings, and environments. It is used as the C head of certain CP complements, as the head of the complement clause of 'seems', as a disjunction marker, as a conjunction marker when repeated before each conjunct, as an alternative coordinator when combining with a negative morpheme, and as adverbials.

2.7.3.1 CP complement head

te is a complementizer as in (278). It seems that this C head is optional for many of the verbs that select for a CP headed by te. As I will discuss in the next section, there is a factive/non-factive restriction for te, namely that te is only possible as the head of a CP complement of a non-factive verb.

(278) an əsav-(te) gu-kam 3S said-TE IMPFV-come.1S '3S said that I'll come.'

Taking the same verb as in (278) 'say' ∂se - in the 1P form $\partial senk$ gives us another, commonly used CP complement headed by te, as in (279). This form is usually the introduction of a larger scenario, that has not happened, therefore once again non-factive, hypothetical.⁶³

(279) əsenk-(te) tun dun katsir... say.1P-TE 2S.NOM home went.2S... 'Let's say, you went home...'

Another predicate which takes *te* as its head is a 'supposedly' construction which is introduced by either *ipər* or *iprev*, meaning 'standing in for' or 'pretend' as in (280).

(280) ipər/iprev-te Aram-in desar pretend-TE that Aram-DAT saw.2S 'Supposedly you saw Aram.'

As a head of an embedded CP, te can head interrogative clauses as complements of certain verbs as seen in (281) with 'why' intfu and in (282) with 'how' intfbes.

 $^{^{63}}$ In conversation the verb *əsenk* 'say' reduces to *senk*. An alternative form of the same construction is *sebenk* in place of *əsenk*.

(281) $t \int -em$ hasgnar te int $\int u$ dun katsir NEG-be.1S understand *te* why home went.2S.PERFV 'I don't understand why you went home.'

(282) gə-desnek-gor te intʃbes Aramə salor-ə gerav(rising-int)? IMPFV-saw.2P-PROG that how Aram plum-ACC ate.3S 'Are you seeing how Aram ate the plum?'

Although both *te* and *vor* are heads of CP complements of verbs, they prosodically group with the verb, similar to suffixes, especially *te*. This might suggest that in the near future these heads will be clitics on the verb, similar to *-ne*, which used to head the phrase following the verb as a head-initial free morpheme *na*.

(283) husam vor/te ## tun dun katsir hope.1S C/TE 2S.NOM home went.2S 'I hope you went home.'

2.7.3.2 seems

Continuing the theme of te being a head of non-factive predicates, I move on to 'seem', which in WA is formed with the stem of 'think' gardze-. To this stem the 2S agreement marker is added, giving gardze-s. This verb in turn selects for a te headed CP as in (284).⁶⁴

(284) (Aramə) gardze-s-te Aramə dun kənats (Aramə) () think-2S-TE aram home went.3S () 'It seems that Aram went home.'

Unlike English, WA does not expletive subjects that can be inserted when the subject of the embedded verb does not raise to the matrix subject position. As I've shown throughout this chapter, scrambling is rampant in WA and an example like (284) follows this pattern of the subject being able to appear anywhere in the sentence.

gardze-s cannot take a vor headed complement clause. Also once aspect is added to gardze- 'think' the verb changes to 'think' and no longer has a 'seems' interpretation. If the 2S agreement changes to anything but 2S the verb 'seem' changes to 'think' as seen in (285) comparing it to (286).

 $^{^{64}}$ Yes, I agree, it is puzzling as to why 2S and not any other person/number agreement marker, or why even have an agreement marker for a notion as abstract as 'seems'.

(285) (Aramə) gardze-m/k-te Aramə dun kənats (Aramə) () think-1S/2P-TE aram home went.3S () 'I/You think that Aram went home.'

For the 3S, 3P and 1P person form of 'think', the imperfective marker cannot be omitted, unlike the 1S, 2S and 2P as seen comparing (286) with (287).

- (286) *gardze/nk/n-te Aramə dun kənats think.3S/1P/3P-TE aram home went.3S 'He/We/They think that Aram went home.'
- (287) Haroutə gə-gardze-te Aramə dun kənats Harout IMPFV-think.3S-TE Aram home went.3S 'Harout thinks that Aram went home.'

2.7.3.3 conjunction

Unlike vor, which is restricted to a non-sentence initial position, unless it bears a [+wh] feature, te can occur clause initially in a number of environments. The first is that of conjunction. A method of conjunction is by placing te in front of both of the conjuncts seen in (288). Both clausal level, (288), and word level, (289), conjunctions are possible. It is natural to drop the first verb, if conjoining two clauses as in (288).

- (288) te as (portsetsi) te an portsetsi TE this (try.PERFV.1S) TE that try.PERFV.1S 'I tried both this and that.'
- (289) Arame te garmir te gabujd kirk kenets Aram TE red TE blue book buy.PERFV.3S 'Aram bought both a red and a blue book.'

2.7.3.4 disjunction

Oddly enough, one te used between two clauses results in a disjunction seen in (290).

(290) pərints te bəlsur bid udenk rice TE bulgur will eat.1P 'We will eat either rice or bulgur.'

2.7.3.5 *te*+negation

The complementizer te is a fairly versatile morpheme when it comes to forming more complex conjunctions. There are many forms that arise by combining te with one of two negative markers: tfe 'NEG.AUX', votf 'no'. The coordinator that result are four that have the rough interpretation of 'or else': te-votf, te-tfe, aba-te-votf, and tfe-te. Switching the order of teand votf from te-votf to votf-te changes the meaning from 'or else' to 'not that'. The adverbial 'only' can be attached to this coordinator to form 'not only' votf-(te)-mijajn, making teoptional. There is a final form which takes another negative morpheme, namely vaj 'woe!', which is an interjection uttering disbelief. This combines with te to form vaj-te 'don't dare'.

I give two examples showing the difference in meaning when altering the ordering of te with respect to *votf*, seen in (291) and (292). The phrase headed by *votf-te* can be pre-posed as seen in (292), however this is not allowed for *te-votf*.

- (291) (*...) bedk e pan m

 udem (te-vot∫ bid marim)
 (*) must be.3S thing INDEF eat.1S TE-no will faint.1S
 'I must eat something or else I will die.'
- (292) (...) guzem dun ertal (votJ-te barge.lu (hamar) pajts/a(j)l ude-lu hamar) (...) want.1S home go.INF no-TE sleep.INF.DAT for but/also eat-INF.DAT for 'I want to go home, not to sleep but to eat.'

5-1

2.7.3.6 Adverbials built from te

Lastly, te combines with other morphemes in the language to form adverbials: te-jev 'even though' as in (293), mijajn-te 'just' as in (294), mi-te 'maybe' as in (295), te-guz 'however' as in (296), kan-te 'instead of' as in (297)

- (293) te-jev udel (te-jev) gə-sirem, ajsor bid ch-udem te-and to.eat (...) IMPFV like.1S, today will NEG-eat.1S 'Even though I like to eat, today I will not eat.'
- (294) mijajn-te vəsda jezir vor zam-ə das-in hos əlla-s only-te sure be.IMP.2S that time-SPFC ten-GEN.DEF here be-2S 'Just make sure that you are here by 10 o'clock.'
- (295) mi-te tuk-a(l) mortsak mi-te 2P.NOM-also forgot.2P 'Can it be that 2P also forget.'

- (296) bid hajeren kəre-m, te-guz gartatsogh bid ch-əlla will armenian write-1S, however reader will NEG-be.3S 'I will write in Armenian, but there will be no readers.'
- (297) as dun-ə fad aveli dogun e, kan-te an dun-ə this house-SPFC very more stable is.3S, kan-te that house-SPFC
 'This house is much more stable than that house.'

2.7.3.7 te vs. vor

One common theme that ties most of the environments of *te* together is non-factivity. Factivity is a factor when deciding between *vor* and *te* for the head of a CP complement. There are three types of predicates that take CP complements or adjuncts, those that are able to take either a *vor* headed CP or a *te* headed CP, or only either one or the other.

According to Sakayan (2000) the difference between te and vor is a result of what type of reported speech is being uttered. *vor* is used for assertive and imperative verb types and te is used for general and specific questions. However the distinction between *vor* and teis blurrier than this. In the table below I put predicates into three columns: ones that are able to take either *vor* or te, ones that take only *vor*, and ones that take only te.

te or vor	non-factive	only vor		only te	
$\partial senk$	'say.1P'	g-uzes	'want'	gardzes	'seem'
hartsutsi	'ask'	hramajetsi	'ordered'	i prev	'supposedly'
husam	'hope'	arkiletsi	'blocked'	mijajn	'only'
gardzets	'think'	zəʁt∫am	'regret'	abavotf	'on the other hand'
t∫-əlla	'let it not'	zarmana-m	'be surprised'		
gasgadzim	'doubt'	hajdnaperem	'discover'		
angareli- e	'be impossible'	darorinag e	'be odd'		
gardzem	'think'	mortsa	'forgot'		
gagngalem	'expect'	hramajetsi	'ordered'		
və $sdah$ - em	'be sure'				
vaj	'don't dare'				

The generalization, seen from the table above is that factive verbs can not take CP complements headed by *te*, as seen with the bottom half of the second column, whereas non-factive verbs can take both *te* and *vor* headed CP complements. The three non-factive verbs at the top of the second column cannot take *te* though. Something needs to be said about these verbs. An example from each of the three columns is seen below.

- (298) husam vor/te tun dun katsir hope.1S C/TE 2S.NOM home go.PERFV.2S 'I hope you went home.'
- (299) zəвt∫am vor/*te tun gərnas kordzadzel regret.1S C/*те 2S.NOM can.2S use.INF 'Let me regret it so that you can use it.'
- (300) gardzes-te/*vor tun dun kats-er es think.2S-TE/*C 2S.NOM home go-EVID AUX.2S 'It seems that you have gone home.'

There are a number of other languages which have a factive/non-factive distinction with their complementizers. Japanese uses to for non-factive (not presupposed) predicates and koto or no for factive (presupposed) predicates (Kuno 1973). There are also languages that don't diffrentiate between factive and non-factive predicates, like Hindi ki, Hungarian hogy, Lubukusu mbo (Diercks 2011).

2.7.4 -al

A slightly different type of clitic is seen when examining *-al*. There are three main uses of *-al*: head of free relatives, as in (301), as 'also', seen in (302), and giving the meaning 'even' when cliticizing to a *-ne* clause, as in (303). It is a bound enclitic, which usually surfaces as [-a] instead of [-al].

.

- (301) ov-al ka, bid uraxana who-AL come.3S, FUT become.happy.3S 'Whoever comes, will become happy.'
- (302) Aramn-al dun kənats Aram-AL home went.3S '[Aram also] went home.'
- (303) karort zam-en jele-m-ne-ja, gə-pave quarter hour-ABL get.up-1S-NE-AL, IMPFV-suffice.3S 'Even if i leave in a quarter of an hour, it will be enough time.'

The first environment where -al is found, in free relatives, I introduced in §2.7.1.2 and will expand up in §4.4.3 when discussing concord in free relatives. -al can cliticize onto most phrases of a sentence, to give the second meaning of -al, 'also', as seen in (304). As will be further discussed in Chapter 4, -al is interpreted on the main focused phrases of the sentence, which is usually either the phrase it cliticizes to of the immediately following phrase. Therefore for the examples in (304), the 'also' interpretation is most naturally with the word it is attached to.

- (304) Aramn-al sevan-in dag-ə kirk-mə tərav Aram-AL table-GEN under-3S.POSS book-INDEF put.PERFV.3S 'Aram, also, put a book under the table.'
 - Aramə seran-in-**al** dag-ə kirk-mə tərav Aramə seran-in dag-n-**al** kirk-mə tərav Aramə seran-in dag-ə kirk-mən-**al** tərav

There is an adverbial equivalent to -al, namely *najev*, seen in (305). In Chapter 4 I will show how these co-occur and interact.

(305) **najev** Aramə dun kənats also Aram home went.3S '[Aram also] went home.'

The third environment of -al, as in (306), is where -al cliticizes to a -ne giving an 'even' reading. The -ne in this environment has a conditional interpretation. Similar to -al and najev, this use of -al has an adverbial counterpart, nynisk as seen in (306).

(306) (nynink) (jete) jertam-ne-al, bid t∫-okne
(even) (if) go.1S-NE-AL, FUT NEG-help.3S
'Even if I go, it won't help.'

Another use of -al is as a conjunction, where two or more of the same type of phrase are encliticized with this particle, giving a 'both X and Y reading' seen in (307). Finally, -al appears in certain exclamatives like in (308).

- (307) Aramə ajsor-al, vagn-al, (mys-orn-al) dzov bid erta
 Aram today-AL, tomorrow-AL, (other-day-AL) sea FUT go.3S
 'Aram is going to go to the beach today, tomorrow (and the day after tomorrow).'
- (308) yyyf-(be) tun-al [frustration]-(BE!) 2S.NOM-AL 'Oh come on, you're being ridiculous.'

2.7.4.1 $al \neq -al$

The *-al* clitic should not be confused with a head initial homophonous clitic *al-*, which is a truncated version of *ajlevəs* 'anymore' as seen in (309). The non-truncated morpheme can appear in place of *al-* wherever *al-* surfaces.

(309) a∫agerd-∂ al-dun bid t∫-erta student-SPFC anymore-home FUT NEG-go.3S 'The student will not be going home anymore.'

Similar to the head final -al morpheme, al- can be a proclitic on most of the items in a clause. Taking (309), al- can appear on any of the items as seen in (310). Sentence finally -al would not have a host and therefore not possible. However ajlevas, a free morpheme, can appear sentence finally as seen in (310).

(310) al-a∫agerd-ə dun bid t∫-erta
 a∫agerd-ə dun al-bid t∫-erta
 a∫agerd-ə dun bid al-t∫-erta
 a∫agerd-ə dun bid t∫-erta *al/ajlevəs

Unlike *-al*, the different positions of *al*- do not lead to different semantic or pragmatic interpretations. This adverbial clitic seems to be a sentential level adjunct, free to appear before most phrases.

2.7.5 -ja

The first of the four Turkish clitics I discuss is -ja. In WA there are two main uses of this morpheme, as a discourse old head as in (311) and as an exclamative particle as in (312).

- (311) an dəвa-n ga-ja? that boy-SPFC ∃.3S-JA '[you know] that boy that exists...'
- (312) hon-deg-e-n jelir-ja! there-place-ABL-SPFC get.up.IMP.2S-JA 'Get up from there, [you]!'

-ja is a particle used much less frequently and by fewer speakers than $-ne.^{65}$ The most common verbs that -ja attaches to are *alla*- 'to be' and ga- ' \exists '. This first use is in a question intonation, where the prosody indicates that both the speaker and the hearer have a previous knowledge of the subject in the same phrase. The example in (311) can also appear with as a declarative with a pre-verbal *vor* 'that' and convey the same meaning. Namely, the subject being previously established in the discourse.

(313) an dəва-n vor ga that boy-SPFC C = 3.3S '[you know] that boy that exists...'

The example in (313) differs from the example with the enclitic -ja, as in (311), in that the prosody, the F0, is falling at the end of the phrase, instead of a high rising F0 with -ja. As previously mentioned the suffix -ja can co-occur with the head-initial vor, as in (314). Once again as in the previous two examples, the following example has the same semantic interpretation. The prosody of (314) is that of a question similar to the non-vor (311).

(314) an dəʁa-n vor desank-ja? that boy-SPFC C see.PERFV.1P-JA '[you know] that boy that we saw...'

Even though -ja usually appears encliticized to a verb, it does not need to attach to a verb as seen in (315). This particle can appear at the very end of the clause and still give the discourse old meaning. However the intonational rise criterion that I discussed earlier is the same for these cases. The intonation rises on the last syllable of the verb, and is maintained all the way to -ja. Once again the head finial *vor* is possible as in (316) and both of them together as well as in (317).

- (315) an dəsa-n jereg garkatrets Aram-in-ja, ajsor jes garkatretsi that boy-SPFC yesterday fucked.(over.)3S Aram-DAT-JA, today 1S.NOM fucked.(over.)1S 'Today I fucked (over) that guy that fucked (over) Aram yesterday.'
- (316) an dəua-n vor jereg garkatrets Aram-in, ajsor jes garkatretsi that boy-SPFC C yesterday fucked.(over.)3S Aram-DAT, today 1S.NOM fucked.(over.)1S 'Today I fucked (over) that guy that fucked (over) Aram yesterday.'

⁶⁵It is more closely associated to being Turkish. Most speakers deny that they have used the particle, even if they have.

(317) an də¤a-n vor jereg garkatrets Aram-in-ja, ajsor jes garkatretsi that boy-SPFC C ysdy fucked.(over.)3S Aram-DAT-JA, today 1S.NOM fucked.(over.)1S 'Today I fucked (over) that guy that fucked (over) Aram yesterday.'

The second use of -ja is in interjections, either as a command (318), a question (319), or an expression of disagreement with verbal negation tf-. All of the uses of -ja contain some element of focus.

- (318) hon-deb-e-n jelir-ja! there-place-ABL-SPFC get.up.IMP.2S-JA 'Get up from there, [you]!'
- (319) ur e-s-**ja**? where BE-2S-JA 'Where [the hell] are you?'
- (320) tf-e-ja, tf-eBav-ja NEG-BE.3S-JA, NEG-become.3S-JA 'No [man]! That didn't work [man]!'

2.7.6 -mə

The next clitic is the polar question $-m\partial$ particle, as in (321) and (322). Similar to -ja this clitic is not as widely utilized as -ne. This morpheme is a direct borrowing of the Turkish question marker -mI (Göksel & Kerslake 2005:251).

- (321) g-əlla-mə? IMPFV-be.3S-Q? 'How is that possible?'
- (322) kirk gartatsi-mə? book read.PERFV.1S-Q 'Did I read a book?'

 m_{∂} is always optional, however certain speakers express a feeling of incompleteness with certain polar questions that lack the clitic. The difference between a polar question and a declarative statement in Western Armenian is the prosody.

(323) Aramə dun kənats Aram home go.PERFV.3S 'Aram went home.'

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The sentential prosodic prominence is realized on the pre-verbal syllable for declarative sentences, unless another word or phrase is focused as in (323). The prominence shifts to the final syllable of the verb and continues until the end of the sentence for polar questions, as seen in (324) and (325).

- (324) Aramə dun kən**ats**? Aram home went? 'Did Aram go home?'
- (325) Aramə kən**ats dun**? Aram went home? 'Did Aram go home?'

-mo, as in (326), has the same intonational rise as a polar question as in (324).

(326) Aramə dun kən**ats**-mə? Aram home went-Q? 'Did Aram go home?'

However unlike -ne the high tone is somewhat sustained through the end of $-m\partial$, whereas for -ne, there is a clear drop and -ne is unstressed. $-m\partial$ does not attract sentential stress to its left adjacent syllable like -ne as in (327) compared to (328).

- (327) gə-lə**sés**-gor-mə IMPFV-hear.2S-PROG-Q 'Are you hearing X?'
- (328) gə-ləses-**gór**-ne IMPFV-hear.2S-PROG-NE 'If you are hearing X...'

2.7.7 ama

A third directly-borrowed-from-Turkish particle is *ama* 'but'. It can appear clause initially or finally as seen in (329).

(329) afagerd-mə jegav, **ama**/pajts anunə tf-e-m hife-r-gor student-INDEF come.PERFV.3S, but/but name NEG-BE-1S remember-r-PROG 'A student came, but [actually] I don't remember 3S's name.' (330) a∫agerd-mə jegav, anunə t∫-e-m hi∫e-r-gor student-INDEF come.PERFV.3S, name NEG-BE-1S remember-r-PROG ama/??pajts but/but
'A student came, but [actually] I don't remember 3S's name.'

2.7.8 de

The fourth particle that is used is de. This clitic seems to have two main uses, one expressing 'so that' as in (331) and (332) and another which is more of a conjunction marker expressing 'and try to' seen in (333).

- (331) kəntag-ə bid pere-de, χaʁank
 ball-SPFC FUT bring.3S-DE, play.1P
 '3S is going to bring the ball, so that we'll play.'
- (332) surd₃-mə jepe-de, χəmenk
 coffee-INDEF cook.IMP.2S-DE, drink.1P
 'Make some coffee, so that we'll drink it.'
- (333) jegur-**de** mi χəntar come.IMP.2S-DE PROH laugh.2S 'Just try and not laugh.'

2.7.9 Exclamative clitics

The final set of clitics found in WA are the exclamatives, which are usually used to emphasize disappointment as in (334) and (335).

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- (334) g-əlla-mə-**ka/dzo/be**? IMPFV-be.3S-Q-KA/DZO/BE? 'Come on!'
- (335) ka tun χ ent es mə? KA 2S.NOM crazy BE.2S Q? 'What the, Are you crazy?'

[from Beledian (2003:116)]

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2.8 P

Western Armenian is a language with both prepositions and positions. There are definitely more postpositions in the language than prepositions, as will be clear by the tables in this section. There are a few adpositions that can be used as either postpositions or as prepositions. WA gives us a way to test variation of structures of a given category within the same language. Usually what is found in the literature is a comparative look at a number of languages, either prepositional or postpositional. I will first demonstrate that the structure of prepositions is different from that of postpositions. I will then move on to possible ideas of why these differences exist.

2.8.1 The Prepositions

One of the sets of phrases that are head-initial in WA are the prepositional phrases. These phrases are quite different in terms of structure when comparing them to postpositions, which I will present in the following section. Prepositions in WA usually take CP complements, with the option of being able to take DPs. This is in contrast to postpositions which do not take CPs. As seen from the table below, there is a range of prepositions in the language.⁶⁶ I have indicated if a preposition is able to take a CP, a DP, or be used as an adverbial.

	Preposition	СР	DP	Adv
before	arat∫	vor	abl (post)	yes
until	mint∫ev	vor	yes	
without	arants	vor	\mathbf{dat}	
opposite to	hagarag	vor	gen, dat	yes
depending on	najadz	vor	gen (pre and post?)	yes
despite	t∫ə-najadz	vor (pre and post?)	gen	yes
independent of	angax	vor	abl (pre and post)	
instead of	poxanag	vor	+inf+dat	
before	naxkan	vor		
except	patsi	jete	abl	
as	iprev/ipər	te	yes	
thanks to	∫ənoriv		gen, dat (pre and post)	
starting	əsgəsadz		abl (pre and post)	yes
towards	tebi	,	yes	yes
according to	əst		dat	-

⁶⁶There are a few more prepositions found in texts, which I have not come across in the spoken language, like *anttem* 'against, contrary to'.

As I've indicated in the table, some of the prepositions are able to act as adverbs and appear between many arguments of a sentence, for example najadz 'depending' seen in (336). The two DP arguments of (336) can appear to the left of najadz, with hardly any semantic alterations.

(336) (najadz) Aramə () Hagop-in () int∫ (*) dəvav...
(depending) Aram Hagop-DAT what give.PERFV.3S...
'Depending on what Aram gave to Hagop...'

Of these prepositions in the table above, a few are able to be both postpositions and prepositions. The difference between a prepositional usage and a postpositional usage of a give adposition is syntactic and does not seem to have much semantic effect as seen by the pair below for aratf in (337) for the preposition and (338) for the postposition.⁶⁷

(337)	[aratJ-*(vor) dun ertam], Aram-in bid desnem	. *
	before-C home go.1S, Aram-DAT FUT see.1S	. A.
	'Before I go home, I'm going to see Aram.'	
(338)	[dun erta-l-e arat∫], Aram-in bid "d esnem	
	home go-INF-ABL before, Aram-DAT FUT see, IS	
	'Before going home, I'm going to see Aram.'	
		14 T

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Some other prepositions, like 'until' mintfev have the option of selecting for a DP as in (339) or a CP as in (340).

(339) Aramə [mintfev dun] kalets Aram [until home] walk.PERFV.3S 'Aram walked all the way home.'

(340) Aramə [mintfev vor dun kalets], jes arten təbrots has-adz
Aram until C home walk.PERFV.3S, 1S.NOM already school reach-PERF
ei
AUX.PAST.1S
'By the time Aram walked home, I had already gotten to school.'

The DP selected by this preposition, in (339), does not bear any case. This is in contrast to all of the postpositions and a few of the prepositions, like *hagarag* 'opposite to'. Similar to *aratf* 'before', the adposition *hagarag* 'opposite to' can be a preposition as in (341) or a

⁶⁷It's peculiar that 'after' jedk cannot take the C vor: *jedk-vor and is strictly a postposition.

postposition as in (342).

- (341) hagarag vor Aramə Hagop-in desav...
 against C Aram Hagop-DAT see.PERFV.3S...
 'Even though Aram saw Hagop...'
- (342) uz-adz-i-s hagarag-ə ərir want-PERF-GEN-1S.POSS against-3S.POSS do.PERFV.2S 'You did the opposite of what I wanted.'

However there is a third possible structure for the prepositional form of hagarag 'opposite to' seen in (343). Here the phrase that this preposition selects for is a nominalized phrase with a genitive case, similar to its postpositional counterpart in (342).

(343) hagarag Aram-in dun erta-l-ə... against Aram-GEN home go-INF-3S POSS... 'Even though Aram went home...'

I will now move on to the postpositions in the following section. After that I will finish this section by putting the headedness patterns together. I will be addressing the question of why certain phrases in WA are head-initial when head-final phrases are expected.

2.8.2 The Postpositions

			, , , , , , , , , , , , , , , , , , , ,	
next to	kov	Aram-in kov-(ə)	GEN	"next to Aram"
on	vəra	seʁan-in vəra-(n)	GEN	"on the table"
under	dag	seвan-in dag-(ә)	ĠEN	"under the table"
behind	jedev	Aram-in jedev-ə	GEN	"behind Aram"
front of	artfev	Aram-in art∫ev-ə	GEN	"in front of Aram"
side	gosm	Aram-in goʁm-ə	GEN	"on the side of Aram"
facing	tem	im tem-əs	GEN	"facing me"
across	timats	dun-in timats-ə	GEN	"across from the house"
next to	kov	im kov-əs	GEN	"next to me"
middle of	met∫deʁ	senjag-in met∫de⊮-ə	GEN	"in the middle of the room"
inside	met∫	dun-in met∫-(ə)	GEN	"inside the house"
around	furtf	dun-in ∫urt∫-(ə)	GEN	"around the house"
among/between	mit fev	mer mit∫ev	GEN	"between us"
during	zamanag	mer ʒamanag-(ə)	GEN	"in our times"
during	aden	nyn aden-(ə)	GEN	"at the same time"
with the help of	mit fots av	Aram-in mit∫otsav	GEN	"with the help of Aram"
close	mod	Aram-in mod-(ə)	GEN	"close to Aram"
about	masin	dun-in masin	$\operatorname{GEN}^{?}$	"about the house"
instead of	deв	dants ude-l-u der	$\operatorname{GEN}^{?}$	"instead of eating à pear"
because of	baddzarav	im baddʒarav-əs	GEN	"because of me"
with	hed	Aram-in hed-(ə)	GEN/DAT	"with Aram"
towards/considering	nəgadmamp	kezi nəgadmamp	GEN/DAT	"towards you"
towards/for	hanteb	kezi hanteb	GEN/DAT	"for you"
similar to	nəman	indzi nəman	GEN/DAT	"similar to me"
size of	t∫ap	indzi t∫ap	GEN/DAT	"similar to my size of"
instead of	poxaren	asor poxaren	GEN/DAT	"instead of this"
for	hamar	jergu or-va hamar	DAT	"for two days"
like	bes	indzi bes	DAT	"like me"
out	turs	dun-e-n turs	ABL	"outside of the home"
after	jedk	dun erta-l-e jedk	ABL	"after going home"
after	hedo	asor-me hedo	ABL	"after this"
before	aratf	dun erta-l-e arat∫	ABL	"before going home"
besides	zad	Aram-en zad	ABL	"besides Aram"
far	heru	təbrots-en heru	ABL	"far from the school"
in	ners	dun-en ners	ABL	"in the house"
above/up	ver	asdidʒan-en ver	ABL	"up the ladder"
since	iver	Boston-en iver	ABL	"since Boston"
below/down	var	dzar-en var	ABL	"down the tree"
•••				

Here are postpositions found in WA and the cases they assign.⁶⁸

⁶⁸This table is compiled from a few sources (Adjarian 1965, Andonian 1966, Sakayan 2000) and notes from my fieldwork. I include as many postpositions as I've collected, to show that postpositions do outnumber the prepositions presented in the previous section. I have not included postpositions that are archaic. I am sure there are other postpositions that are missing from this list. This is not intended to be an exhaustive table of postpositions. For an extensive list and discussion of adpositions in Eastern Armenian see Dun-Tragut (2009:294-307). As seen from the table above there are three cases, {GEN, DAT, ABL}, postpositions select for. The NOM, which is a morphologically bare case and the INST are not possible cases within postpositional phrases. This suggests that the language requires some overt case marker to be present between the DP and the postposition. In reference to the instrumental not being one of the cases selected for by any postposition, indicates that this case marker might be itself more of a postposition than a case marker. One hesitation is that the instrumental marker does not select for any case marker when selecting for a DP.⁶⁹

When a postposition selects for a GEN marked DP, the postposition takes a possessive marker seen in (344). This marker is obligatory for 1S and 2S, but optional for all other person.number possessive markers, shown by comparing (344) with (345).⁷⁰

- (344) im vəra-*(s) 1S.GEN on-1S.POSS 'on me'
- (345) iren vəra-(n) 3S.GEN on-3S.POSS 'on 3S'

There are certain postpositions that take either the genitive or the dative case seen with 'with' *hed.* In (346) the GEN is selected and in (347) the DAT.

- (346) im hed-əs 1S.GEN with-1S.POSS 'with me'
- (347) indzi hed 1S.DAT with 'with me'

 $^{^{69}}$ However I do believe that the structure of the instrumental vs. all the other cases is more complex. Since the instrumental is more complex it is too large structurally to be selected by postpositions. This is the conclusion that Caha (2009:211) in the nanosyntax framework comes to for Classical Armenian. I leave the further examination of the instrumental marker for future research. Also there are a few postpositions which are marked with the instrumental marker like: nogadmamp, mitfotsov, najelov, badzarov. This needs further investigation, as to what it says about the instrumental marker.

 $^{^{70}}$ The possessive marker appearing on postpositions is also seen in Turkish (Göksel & Kerslake 2005). For more on the nature and presence of the possessive marker in Western Armenian see Sigler (1997). See Adjarian (1965:181-190) for the paradigms in the different Armenian dialects.

2.8.3 Final-over-final constraint

In this subsection I will demonstrate how a number of the unexpected word orderings in WA that were presented throughout this chapter fall out from the Final Over Final Constraint (FOFC) (Biberauer et al. 2010), stated below.

The Final Over Final Constraint (FOFC): If YP is a head-initial phrase and XP is a phrase immediately dominating YP, then XP must be head-initial. If YP is a head-final phrase, and XP is a phrase immediately dominating YP, then XP can be head-initial or head-final. (BHR 2010:3 (1))

FOFC therefore disallows the structural configuration in (348), but allows the ones in (349). This constraint is specific to complements, no claim is made about adjuncts. Therefore I will put adjuncts aside for this section.





2.8.3.1 Head-initial VPs

As I presented in the sections above, if a verb selects for a CP complement, then this CP must follow the verb. The CPs in WA are mostly head-initial, headed usually by vor, te, jete 'if', as I presented in previous sections. Since these CPs are head-initial, they should not be allowed to be selected by a head-final head, according to the FOFC. This is exactly the restriction that arises, namely *[C TP] V. Therefore we find CP complements of verbs following the verb, creating a head-initial VP. A head initial phrase being dominated by a head initial phrase is not ruled out by FOFC and that is what the language ends up with. This repair is not special to WA. As Biberauer et al. (2010:18 ex. 19) note, '... other OV languages, including Afrikaans, Bengali, Dutch, Hindi, Iraqw, Mangarrayi, Neo-Aramaic, Persian, Sorbian, Turkish'. Therefore to avoid the configuration of the tree below, (351) is

realized as (350).



(350) Aramə gə-gardze $[_{CP}$ vor $[_{TP}$ Haroutə dants gerav]] Aram IMPFV-think.3S [that [Harout pear ate.3S]] 'Aram thinks that Harout ate a pear.'

(351) *Aramə [*CP*vor [*TP*Haroutə dants gerav]] gə-gardze Aram [that [Harout pear ate.3S]] IMPFV-think.3S

Trinh (2011) discusses the FOFC in relation to Dutch and German and points out that FOFC is not universal and the CPs being extraposed should not be considered in FOFC and pushes for a head movement fix for certain potential counterexamples of FOFC.

2.8.3.2 PPs

(352)

The second domain where the FOFC applies and predicts correctly structures in WA is with adpositional phrases. As I presented in this section, WA has both prepositions and postpositions. A main striking difference between the two is that prepositions allow for CP complements, but postpositions do not. Once again remembering that CPs in WA are mostly head-initial, this restriction falls out. Looking at the two trees in (352), FOFC would rule out the second where a head-final P is selecting for a head-initial CP. This translates to postpositions not being allowed to take CPs are complements, which is what we find, *[C TP] P.



The postpositions all take DPs as complements. DPs in WA are head-final as was discussed in previous sections and so a head-final P selecting for a head-final DP results in
the acceptable structure in (353).



The prepositions also take DP complements, as seen by the table of prepositions in §2.8.1, because a final head (like DP) can be dominated by a projection that's either headinitial or head-final.

2.8.3.3 Aux of V

A third instance of FOFC at play is with the location of the auxiliary verb for perfect and evidential in WA. Both of these aspects appear with an auxiliary which hosts tense and person/number agreement. This auxiliary follows the verb and does not allow any phrase to intervene between it and the verb as seen when comparing (354) with (355).

- (354) Aramə hats ger-adz e Aram bread eat-PERF AUX.3S 'Aram has eaten bread.'
- (355) *geradz hats e eaten bread AUX.3S

The object of the verb may not surface between the verb and the auxiliary. This restriction falls out from FOFC, namely *[V O] Aux, which according to Biberauer et al. (2010:4) is also a restriction for Germanic languages. Therefore the configuration in (356) is disallowed and objects obligatorily do not surface between the verb and the auxiliary.

(356)



6

2.9 Adjuncts

Putting together the different adjunct clauses that have been laid out in the previous sections of this chapter, the following table is produced. I have focused on *vor* as the main C head that these adjunct clauses contain to make the comparison between the different types of clauses simpler. These are all head-initial phrases with different levels of complexity. The most complex are in the first chunk of the table. The clauses become more impoverished the lower down one gets in the table in terms of the adjuncts being able to host aspect, tense, or a verbal element. I have discussed most of these clause types in the different sections of this chapter and therefore will not expand upon them here.

if	jete	jete dun ertam	"if I go home"
because	vor(ovhe)dev	vordev uz-adz-əs jeвav	"because what I wanted happened"
when-ever	jerp-(vor)	jerp-vor dun ertam	"when I go home"
how-(ever)	inchbes-(vor)	inchbes-vor kirk kənetsir	"however you bought a book"
where-ever	ur-(vor)	ur-(vor) guzes	"wherever you want"
who-ever	ov-(vor)	ov-(vor) guzes	"whoever you want"
whom-ever	vorun-(vor)	vorun-(vor) guzes	"whomever you want"
(so) that	vor	vor dun ertam	"so/that I go home"
so that	vor-besi	vor-besi dun ertam	"so that I go home"
just/right	haziv	haziv Aram-ə dun kənats	"Just when Aram went home"
however much	intf-kan-(vor)	∣ int∫-kan-vor Aramə uze	"However much Aram wants [it]"
however much	vor-kan-(vor)	vor-kan-vor Aramə uze	"However much Aram wants [it]"
although	tejev	tejev Aram-ə uraχ er	"although Aram was happy"
wasn't it the case	t∫e-vor	tfe-vor Aramə uraχ er	"what happened, Aram was happy"
not that	votf-te-(vor)ajl	vot∫-te-vor Aramə jegav, ajl	"not that Aram came, but"
because	kani-(vor)	kani-vor Aramə dun kənats	"Because, Aram went home"
even though	hagarag-*(vor)	hagarag-vor dun katsi	"even though I went home"
this/that much	a(j)s/t/n-kan (vor)	at-kan vor gə-xosi-s	"You talk so much that"
until-that	mintfev-(vor)	mintſev-vor Aramə hasni	"until Aram arrives"
before	aratf-*(vor)	arat∫-vor Aramə hasni	"before Aram arrives"
before	nax-kan-(vor)	naxkan Aramə hasni	"before Aram arrives"
without	arants-*(vor)	arants vor Aramə desne	"without Aram seeing"
this/that much	a(j)s/t/n-kan (vor)	at-kan vor xosi-s	"however much you talk"
also	najev/nynbes	najev jergu dəsakə	"also the two boys"
every	amen	amen ∫apat	"every week"
without	arants	arants madid-i	"without a pencil"
exactly	dʒift	dʒi∫t uzadz-ə	"exactly what 3S wanted"
until	mintfev	mint∫ev im dunəs	"until my house"
this/that much	a(j)s/t/n-kan	at-kan hats	"That much bread"
this/that much	a(j)s/t/n-kan	at-kan gə-xosi-s	"You talk so much that"
instead of	kan-te	kan-te təbrots ertal	"instead of going to school"

	((357)	Head-initial	Adjunct	Phrases:
--	---	-------	--------------	---------	----------

There are single word adjuncts seen in the table below as compared to the clausal adjuncts seen in the table above.

	yesterday	jereg
	today	ajsor
	tomorrow	vasə
	-ly	-oren
	happily	uraχ-oren
	always	miſt
	often	hadzax
	sometimes	jerpemən
	never	jerpek
	ever	p a nav/het f
(358)	as soon as	haziv
	usually	$ ensuremath{\partial} ntanr-abes$
	only	mijajn/ mijag
	at least	kone
	after	<i>hedo/</i> jedkə
	before	arat∫
	enough	$\mid pavagan/pavarar$
	alone	minag(ə)
	before	$na\chi$
	also	najev
	starting with	$\partial sg\partial sadz$

Scrambling has been a common thread among many of the phrases discussed in this chapter. A few examples of the clausal adjuncts' scrambling capabilities are seen in the table below. Arguments are able to scramble to the left of these head-initial adjunct heads, as in (360). The only restriction seems to be with the adjunct head 'because', which seems to be more strictly head-initial.⁷¹

			[]Aramə	[]gato	[]ude	[]gerav	[]udelu
			Aram	cake	eat.3S	eatperf.3S	eat.INF.DAT
	if	jete	yes	yes	yes		
	when	jerp(vor)	\mathbf{yes}	yes	yes		
(359)	until	mint fev- vor	yes	yes	yes		
:	b/c	vordev	yes	yes		no	
	although	tejev	yes	yes		yes	
	just/right	haziv	yes	yes		yes	
	without	arants	yes	yes			yes

^{(360) (}jete) Aramə (jete) gato (jete) ude-ne (*jete), Hagopə bid newvi
if Aram if cake if eat.3S-NE if, Hagop FUT sadden.3S
'If Aram eats cake, Hagop will be sad.'

⁷¹Japanese mofi 'if' and Korean manil 'if' can surface in different positions as well, parallel to WA jete.

In embedded phrases there are more restrictions, as opposed to the sentence initial position of the clausal adjuncts.

(361) Hagopə (*jete) hartsuts [jete Aramə (*jete) gato g-ude] Hagop if asked.3S if Aram if cake IMPFV-eat.3S 'Hagop asked if Aram eats cake.'

In general DPs can scramble around PPs, within the same CP ((362)). However, DPs cannot scramble around CPs ((363)), which would violate extraction out of an adjunct island.

(362) ([...]) Aramə [mintfev im dun-əs] kəfets ([....])
() Aram until 1S.gen home-1S.poss drove.3S ()
'Aram drove all the way to my house.'

(363) [mintfev-vor Aramə hasni], jes (*[...]) gato (*[...]) bid (*[...]) ude-m until-that Aram arrive.3S, 1S.NOM () cake () FUT () eat-1S ([...]) ()

'Until Aram arrives, I will eat cake.'

2.10 Conclusion

In this chapter I have explored certain facets of Western Armenian, most of which are essential to understand the data in Chapter 3 and Chapter 4. I started with a general presentation of word order in WA, a mostly head-final language. Throughout this chapter I demonstrated the interaction between head-initial heads and head-final ones. I first go through the nominal domain. Then I shift gears to the verbs of WA and all morphemes revolving around the verbs, aspect morphology, negation, and finally a slew of particles. The negative morphemes and phrases along with the particles are the key contenders in the concord structures of the rest of the thesis. Near the end of this chapter I examined the adpositions, of which a majority are postpositional. The differences in structure between prepositions and postpositions combined with certain headedness properties of the verbal domain came together in the discussion of the Final-over-final constraint. A brief excursion through the world of adjuncts concluded this chapter.

Chapter 3

WA Negative Concord

3.1 Introduction

This chapter examines negative concord in Western Armenian (WA). Cross-linguistically when two negative morphemes appear together in the same clause, there are two possible interpretations that result. Either each negative morpheme contributes a negation to the semantics, known as "double negation" (DN) or the two morphemes produce a single semantic negation, known as "negative concord" (NC). English and Dutch are examples of languages that exhibit DN, where each instance of morphological negation adds to the semantics as in (1).

(1) John did not do nothing. =John did +Neg do +Neg.thing \sim 'John did do something.'

[Standard English]

Greek, Russian and Armenian are examples of NC languages as seen by the Greek example in (2), where a negative argument *TIPOTA* and sentential negation *Dhen* together in the same clause result in just one negative meaning.

(2) Dhen ipa TIPOTA not said.1sg n-thing
'I didn't say anything.' [Greek] (from Giannakidou, 2000:458)

WA differs from most other NC languages in that the verbal negative marker is completely optional in the presence of any n-word. Secondly, a DN meaning is possible with two verbal negative markers, unlike other optional NC languages. I propose that negative meaning in WA comes from verbal negation. When verbal negation is absent a covert negative operator gives the negative interpretation, following the approach by Zeijlstra (2004).

I expand the typology presented in Zeijlstra (2004) by showing that the distinction set between strict and non-strict negative concord languages will not account for the negation facts of Western Armenian. I will conclude that WA is a case of a strict negative concord language with respect to the distribution of n-words and with respect to verbal negation scope. But unlike other strict negative concord languages, the negative words of WA must bear the negative features of those in non-strict negative concord languages. Therefore Zeijlstra's (2004) account of negative concord must be altered to include languages like WA since according to his system a language like Western Armenian should not exist.

A note about the data found in this chapter: The main focus of the data collected is on interpretation. Specifically, whether a sentence had a negative interpretation or a positive one, the latter suggesting that two negative morphemes had each been interpreted giving a double negation reading. Therefore examples in this chapter are mostly elicited judgements rather than attested everyday colloquial WA speech.

3.1.1 Western Armenian Negation

In this section I present the different negative morphemes that will be relevant in the discussion and analysis of negative concord in Western Armenian.¹ Tensed verbs (3), nominalized verbs (3), auxiliaries (5), and modals (6) are negated with the bound prefix tf(i).

- (3) Aramə tfə-**vazets** Aram NEG-run.PERFV.3S 'Aram did not run.'
- (4) tJi-ger-adz-əs tun gərna-s ude-l NEG-eat-PERF-1S.POSS 2S can-2S eat-INF 'You can eat whatever I didn't eat.'
- (5) jes hon t∫-e-m kats-adz
 1S.NOM there NEG-AUX-1S go-PERF
 'I have not gone there.'
- (6) Aramə vaʁə t∫ə-bidi vaze
 Aram tomorrow NEG-will run.3S
 'Aram is not going to run tomorrow.'

¹This subsection is a condensed version of the more detailed description of negation in WA §2.5.

Negative indefinites, which I will refer to as n-words, contain the head initial votf 'no' seen in (8), which is minimally different from the position form in (7). The relevant fact for WA is that these n-words are not required to appear with verbal negation as seen in (8).

(7) Aramə **pan**-mə gerav Aram thing-INDEF ate.3S 'Aram ate something.'

(8) Aramə vot J-meg-pan gerav
 Aram no-one-thing ate.3S
 'Aram ate nothing.'

Notably, the n-words in WA can co-occur with verbal negation and maintain one semantic negation for the sentence as seen with comparing (8) to (9), demonstrating a case of negative concord which I discuss and analyze below. The interesting point to make here is the *optionality* of the verbal negative marker with n-words.

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(9) Aramə vot J-meg-pan (t Ji)-gerav
 Aram no-one-thing (NEG)-ate.3S
 'Aram ate nothing.'

Along with n-words, WA has a set of negative polarity items (NPIs) which require some licensor as discussed in §.3.6.3, an example of which is seen in (10).² This example is minimally different from (9) in that the NPI in (10) requires the overt presence of verbal negation whereas the n-word in (9) does not.³ The distinction between these two classes of negative morphemes is discussed in the next section §.3.1.2.

(10) Aramə **vojeve**-meg-pan *(**tJi**)-gerav Aram any-one-thing *(NEG)-ate.3S 'Aram ate nothing.'

The last two relevant negative morphemes are the preposition *arants* 'without' (11) and the negative prefix *an*- 'un-' (12).

 $^{^{2}}$ As is the case for NPIs in other languages, in WA as well, different NPIs are licensed in different subsets of downward-entailing environments.

 $^{^{3}}$ Later in this chapter I will discuss how these n-words require the presence of negation, either an overt negative marker or a covert one.

- (11) [arants garta-l-u] təbrots katsi [without read-INF-DAT] school go.PERFV.1S 'I went to school without reading anything.'
- (12) Aramə **an-**hamper əspasets Aram un-patient wait.PERFV.3S 'Aram waited impatiently.'

Both of these negative morphemes play a role in the analysis of n-words and negative concord as I will show below. I will first show that n-words are different from NPIs in $\S.3.1.2$, then move onto the analysis of negative concord.

3.1.2 Negative Concord or NPI?

Cross-linguistically, n-words have sometimes been analyzed as - and at times been confused for - negative polarity items (NPIs). Watanabe (2004) outlines five criteria to distinguish NPIs from NC items, originally developed by Vallduví (1994) and Giannakidou (2000). According to all five of these distinctions, the n-words of WA fall into the NC category.⁴ The five conditions are related to nonnegative contexts, preverbal subject position above negation, modification by *almost*, elliptical answers and clause boundedness. Below I show how the n-words of WA follow the NC patterns. NPIs typically follow the exact opposite pattern.

When appearing in non-negative contexts, NC items must have a negative meaning. Such contexts include polar questions, conditionals, and other contexts that license NPIs. In (13) an n-word contributes a negative meaning in the same context where an NPI gives a positive meaning as in (14).

- (13) jete *votf*-megə desnes, indzi lur dur if no-one see.2S, 1S.DAT news give.IMP.2S 'If you see no one, let me know.'
- (14) jete *vojeve*-megə desnes, indzi lur dur if any-one see.2S, 1S.DAT news give.IMP.2S 'If you see anyone, let me know.'

The same difference can be seen with yes/no questions as in the next two examples. It is worth noting that there is an intonational difference between (15) and (16). In Armenian

⁴WA NPIs are less well behaved. More about NPIs and the five criteria in the Appendix.

a rising intonation placed on the verb transforms the sentence to a polar question. However this rise occurs at different points when comparing the two questions above. In (15), the rise occurs on the final syllable of the n-word, whereas for the NPI sentence in (16) the rise is placed on the verb after the NPI.⁵

(15) vot∫-meg-des katsir?
 no-one-place went.2S
 'You didn't go anywhere?'

(16) **vojeve**-meg-deß katsir? any-one-place went.2S 'Did you go anywhere?'

The second criterion, which Watanabe (2004) discusses in the context of SVO languages, is that NC items can appear in the preverbal subject position above sentential negation which is seen in (17). It is unclear how indicative this point is since Armenian is primarily SOV, therefore most phrases are linearly preverbal. Also scrambling might result in placing phrases in a linearly preverbal position. These confounds are realized with the well-formed ' preverbal NPI seen in (18).

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- (17) votf-megə Aram-in tfi-sire-r no-one Aram-DAT NEG.be.3S-like-IMPFV 'No one likes Aram.'
- (18) vojeve-megə Aram-in tfi-sire-r any-one Aram-DAT NEG.BE.3S-like-IMPFV 'No one likes Aram.'

This restriction is seen with the NPI anything in English as in (19).

(19) *Anybody didn't criticize John. ex. (10a) from Watanabe (2004:563)

Negative Concord items can be modified by expressions like *almost* as seen in (20).⁶ For an extensive discussion on the semantics and syntax of *almost* and its confounds and complications see Penka (2007:203-220).

⁵For some speakers if the intonational rise of (i) is placed on the verb, the n-word is treated as if it were an NPI, as in the interpretation would be equivalent to that of (ii). These facts are in need of further investigation.

⁶In WA NPIs vojeve-meg-x 'any-one-x' or het f-meg-x 'ever-one-x' can also be modified by expressions like almost.

(20) kərete votf-megə зовоv-i-n nerga je-r almost no-one meeting-DAT-SPFC present is-PAST.3S 'Almost nobody was present at the meeting.'

The fourth criterion is that negative concord items can be used as an answer to a question. A negative interpretation results as seen in (21). Also the NPI corresponding to "anyone" cannot occur in this context in WA.

(21) 30BOV-i-n ov nerga je-r? > votf-megə, *vojeve-megə meeting-DAT-SPFC who present is-PAST.3S > no-one, *any-one 'Who was present at the meeting?' > 'No one', '*Anyone'

NPIs are not supposed to be able to appear as fragmentary answers to questions as seen in English in (22). However there are some complications in some languages like Zulu as discussed by Halpert (2009:5-6), where NPIs might be possible as answers to questions, giving again a negative meaning. Therefore this test sometimes does give inconclusive results.

(22) Who was present at the meeting? > *Anyone

The final point made is that cross linguistically across a *clause boundary*, two n-words or an n-word and sentential negation each contribute a negation to the semantics. Therefore a DN interpretation results when looking at the entire sentence as seen in (23). However this is not the case for NPIs, which are able to be licensed across clause boundaries and only one negative meaning results as seen in (24).

- (23) Aramə tfi-gardze-r vor Varantə votf-meg-pan gerav Aram NEG.3S-think-IMPRF C Varant no-one-thing ate.3S 'Aram doesn't think that Varant ate nothing.'
- (24) Aramə t**f**i-gardze-r vor Varantə **vojeve**-meg-pan gerav Aram NEG.3S-think-IMPRF C Varant any-one-thing ate.3S 'Aram doesn't think that Varant ate anything.'

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3.2 Negative Concord Cross-Linguistically

In this section I will present how multiple negative morphemes behave in other languages before moving on to the Western Armenian data. The three main relevant types of negative morphemes cross-linguistically are 1) bound verbal negation affixes or clitics like Turkish -mA- and Czech ne 2) free [non-bound] negative adverbs like West Flemish nie and English not and 3) n-words, which contain morphological negative strings and can be the arguments of the verb like English nothing, nowhere, Italian nessuno 'nobody' and Czech nikomu 'nobody'.

There are two possible interpretations when two negative morphemes appear together in the same clause. If each negative morpheme contributes a semantic negation the result is a double negation interpretation seen in languages like Standard English (25), Dutch and German (26).

- (25) John did n't not do anything. =John did+Neg +Neg do anything ~ 'John did actually do something.'
- (26) Dieses Jahr hat kein Student nicht bestanden.
 this year has n-DET student NEG passed.
 'This year, no student didn't pass.'
 - ='This year, every student passed.'

[German] (from Penka 2007:19)

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If the two negative items together contribute just one instance of semantic negation we get a negative concord reading as demonstrated above for WA. Other negative concord languages include Greek (27), Italian (28) and Russian (29).

(27)	Dhen ipa TIPOTA not said.1sg n-thing 'I didn't say anything.'	[Greek] (from Giannakidou, 2000:458)
(28)	Nessuno ha visto niente n-person has seen n-thing 'Nobody has seen anything.'	[Italian] (from Penka, 2007:17)
(29)	<i>Nichego ne</i> rabotaet n-thing NEG works 'Nothing works.'	[Russian] (from Zeijlstra, 2004:3)

Giannakidou (2000, 2002) splits NC languages into strict and non-strict negative concord languages. In Strict NC languages a negative marker is obligatory with both subject and object n-words and DN meanings are not possible, such as in Czech, (30) with a subject n-word and (31) with an object n-word.

(30) nikdo ne-volaá n-body NEG-calls 'Nobody is calling.'

[Czech] (from Zeijlstra, 2004:64)

(31) Milan *nikomu ne*-volá Milan n-body NEG-call 'Milan doesn't call anybody.'

[Czech] (from Zeijlstra, 2004:64)

However in non-strict NC languages like Spanish, Italian, and Portuguese, n-words only yield NC interpretations in the post-verbal position, where sentential negation is also required (32). Verbal negation is disallowed with subject n-words (33).

(32) O Rui não viu ningém Rui NEG looked at.n-body 'Rui didn't look at anybody.'

[Portuguese] (from Zeijlstra, 2004:130)

(33) Ninguém (*não) veio N-body NEG came 'Nobody came.'

[Portuguese] (from Zeijlstra, 2004:130)

The difference between strict and non-strict NC languages can be restated as follows: in non-strict NC languages, n-words behave differently in subject and object position, while in strict NC languages, subject and object n-words are treated the same way. In the next section it will be clear that Western Armenian is closest to a strict NC language since subjects (34) and objects (35) are treated the same. The main difference between the strict languages sketched above and WA is that the sentential negation marker is optional in WA.

- (34) votf-megə dʒaʃ (tfi)-gerav no-one food (NEG)-ate.3S 'No one ate food.'
- (35) Aramə votf-meg-pan (tfi)-desa Aram no-one-thing (NEG)-saw.1S 'Aram saw nothing.'

There is a small group of languages like WA where a sentential negative marker is optional with n-words like Bavarian, Quebecois, West Flemish (36) and a variety of Catalan (Haegeman 1995, Zeijlstra 2004, Haegeman and Lohndal 2010). Like WA, these are strict NC languages (Zeijlstra 2004).

(36) ...da Valère niemand (nie) ken
...that Valère n-body (NEG) knows
...that Valère doesnt know anybody.'

[W. Flemish] (From Zeijlstra, 2008:2)

Besides the optionality of the negative marker, in these optional NC languages DN meanings can arise due to scrambling of a negative adverb. For example, in West Flemish a DN interpretation arises when the negative adverb *nie* "not" precedes the n-word as seen in (38), compared to (37).

(37)	da Valère niemand nie (en)-kent	
	that Valère nobody not NEG-know	
	'that Valère doesnt know anybody.' NC	[W. Flemish] (From H & L, 2010:11)
(38)	da Valère nie niemand (en)-kent	• • • • •
	that Valère not nobody NEG-know	
	'that Valère doesnt know nobody.' DN	[W. Flemish] (From H & L, 2010:11)

Western Armenian lacks such a free morpheme negative adverb.⁷ Therefore we cannot test if double negation readings arise through scrambling. However as I will discuss in detail below, DN readings are possible in the same clause in WA with multiple verbal negative markers:

(39) $tf \rightarrow bidi$ tf-ude-m NEG-will NEG-eat-1S 'I will not not eat.' ~ 'I will eat.'

Summarizing the different types of languages presented in this section, negative concord languages are split between strict and non-strict languages. In non-strict languages object nwords require verbal negation marking, whereas in strict languages both the object and the subject n-words require a verbal negation marker. Language like West Flemish, Standard

⁷For extensive discussion of the West Flemish minimal pair of (37) vs. (38) see Haegeman and Lohndal (2010).

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Dutch and Western Armenian do not require a sentential negative marker with n-words. In Standard Dutch if a verbal negation appears with an n-word a double negation reading results, unlike in West Flemish and Western Armenian. Finally both Standard Dutch and West Flemish have negative adverbs.⁸

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3.3 Negative Concord and Double Negation in WA

3.3.1 Single negative item

In this section I go through the negative morphemes discussed in §2.5 and show how they interact with other elements in sentences. Sometimes there are a few ways of expressing the same sentence using different negative items, as is seen below with n-words and *arants* 'without'.

3.3.1.1 Verbal negation

The verbal negative marker takes scope over quantifiers like 'all', 'much', 'someone' or 'something' (40)-(43). The quantifiers can be in either subject or object position. Therefore regardless of the linear order of the quantifier with respect to the negative maker, negation is interpreted above the quantifier.

(40) **amen** afagerd təbrots tfi-kənats all student school NEG-go.PERFV.3S 'Not all students went to school.'

(41) fad dʒaʃ tʃi-gera much food NEG-eat.PERFV.1S
'I did not eat a lot of food.'

(42) megə indzi t∫i-sire-r one 1S.DAT NEG-like-IMPFV 'No one likes me.'

(43) Aramə pan-mə t∫-uzets
 Aram thing-INDEF NEG-want.PERFV.3S
 'Aram didn't want anything.'

⁸For a table summarizing these different languages and their properties see the appendix.

With elaborate contexts the reverse meaning of quantifier over negation is possible for some cases, especially when the DP argument is focused and has presumably raised to a higher position. Seen with (44), which is comprised of the same string of morphemes in (40), in a context such as "The snowstorm made the only road to the school impassable, and so (44)", the quantifier would scope over negation with focus placed on the quantifier *amen* 'all.'

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(44) **AMEN** afagerd təbrots tfi-kənats ALL student school NEG-go.PERFV.3S 'All students didn't go to school.'

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3.3.1.2 n-words

The minimal pair below shows that by adding the votf 'no' morpheme onto the noun phrase a negative meaning arises. No additional negative marker is needed to give the negative version of (45).⁹

(45)	Aramə	pan- mə	kədav
	Aram	thing-INDEF	$find. {\tt PERFV.3S}$
	'Aram	found sometl	ning.'

(46) Aramə vot∫-meg-pan kədav
 Aram no-one-thing find.PERFV.3S
 'Aram found nothing.'

The sentence in (46) can also be expressed using the verbal negative marker. By prefixing this marker on the verb in (45) we get the same interpretation as in (46), seen in (47). Many speakers prefer uttering (47) over (46), however both are used in conversation, depending on previous discourse.¹⁰

(47) Aramə pan-mə **tJi**-kədav Aram thing-INDEF NEG-find.PERFV.3S 'Aram didn't find anything.'

⁹Reminder: As discussed in $\S2.5.2$ there is inter-speaker variation as to which form of the n-word *votfmeqpan* or *votfintf* is used.

¹⁰As noted previously, prescriptively tf_{θ} - is used instead of tfi for (47), many of the consultants used tfi.

3.3.1.3 arants phrases

The phrases headed by *arants* 'without' can surface in a number of positions in a given sentence seen by the sentences in (48). The interpretation of the three sentences in (48) are the same.¹¹

(48) **arants kəlxarg-i** Aramə təbrots kənats without hat-DAT Aram school go.PERFV.3S 'Aram went to school without a hat.'

Aramə arants kəlxarg-i təbrots kənats Aramə təbrots kənats arants kəlxarg-i

If however the *arants* phrase is moved to a different clause, the phrase will now be interpreted as being a modifier of that clause as seen in (49) and (50). In (49) the *arants* phrase modifies the actions of *Aram*, but in (50) it modifiers the actions of *Talar*.

- (49) **arants megə desne-l-u** Aramə gardzets vor Talarə dun kənats without one see-INF-DAT Aram think.PERFV.3S C Talar home go.PERFV.3S 'Aram, without seeing anyone, thought that Talar went home.'
- (50) Aramə gardzets vor **arants megə desne-l-u** Talarə dun kənats Aram think.PERFV.3S C without one see-INF-DAT Talar home go.PERFV.3S 'Aram thought that Talar, without seeing anyone, went home.'

The location of interpretation is made more salient with a pair like (51) and (52), where the *without*-clause can logically only modify the action in the embedded clause as in (51). When the *without*-clause is moved to the matrix in (52) the sentence is illformed, since thinking can not be attempted using 'shoes.'

- (51) Aramə gardzets vor Talarə **arants gofig-i** təbrots kənats Aram think.PERFV.3S C Talar without shoe-DAT school go.PERFV.3S 'Aram thinks that Talar went to school without any shoes.'
- (52) #Aramə arants gofig-i gardzets vor Talarə təbrots kənats Aram without shoe-DAT think.PERFV.3S C Talar school go.PERFV.3S

¹¹There is however a difference in intonation which I leave aside, parallel to other phrases that are capable of scrambling around. Scrambling here does not result in different semantic interpretations.

Finally, an *arants* phrase like the one seen in (53) can also be expressed using either an n-word, seen in (54), or a verbal negative marker, seen in (55).

- (53) **arants garta-l-u** təbrots katsi without read-INF-DAT school go.PERFV.1S 'I went to school without reading anything.'
- (54) vot∫-meg-pan garta-l-ov təbrots katsi
 no-one-thing read-INF-INSTR school go.PERFV.1S
 'I went to school without reading anything.'
- (55) t**∫∂-garta-l-ov** təbrots katsi NEG-read-INF-INSTR school go.PERFV.1S 'I went to school without reading anything.'

The phrases in (54) and (55) do not contain an overt *without* word; however, the combination of the instrumental marker with a negative morpheme like an n-word or verbal negation gives us the same meaning.¹²

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3.3.2 Negative Concord

In this section I present what happens when two or more of the negative morphemes discussed in §.2.5 and §3.3.1 occur in the same sentence. When two or more negations appear in the same sentence there are two possible meanings that might arise. Either only one negative meaning surfaces as in (56) or the two negative morphemes each contribute a negative meaning resulting in a double negation interpretation as in (57), which is similar but not identical to a positive interpretation. I will first go through the 4 cases of negative concord (NC) found in WA, then the 5 cases of double negation (DN) in the following section.

- (56) Aramə votf-meg-des tf-e-r Aram no-one-place NEG-BE-PAST.3S 'Aram was nowhere.'
- (57) Aramə an-hamper $t \int e^{-r}$ Aram un-patient NEG-BE-PAST.3S 'Aram was not impatient.' ~ 'Aram was patient.'

¹²There is a temporal difference between the phrase with *arants* and those in (54) and (55) without *arants*, due to the adverbial meaning of the instrumental in WA. For the phrase in (53) it seems that the *arants* phrase is being completed before 'the school going.' While in (54) and (55) a simultaneous reading of the two actions is more salient, and therefore 'the (not) reading' is being done during 'the school going.'

There are a few factors that go into the computation of negation of a sentence in WA. In this section I will go through these factors, present relevant data, discuss certain complications, establish generalizations, and note where more data and investigation is needed.

Factors:

1) Type of negation: n-word, verbal negation, negative preposition, negative DP prefix

2) Clause boundaries: CP, PP, DP, IP

- 3) Location of sentential focus: default, non-default
- 4) Distance/position of negative morphemes
- 5) Location of tense/agreement morpheme

A few important notes to keep in mind about the data collected and what effects it has on my generalizations. As I've discussed earlier the focus of this chapter's data is whether a certain sentence has a negative concord or a double negation meaning. There are three main types of responses: either sentences are rejected as meaningless, or they have a negative concord reading (NC) or a double negation reading (DN). There is interspeaker variation as to what factor has more effect on altering a negative concord reading to a double negation reading. For example some speakers reported a difference in meaning between a focused n-word vs. a non-focused n-word in object position, as I discuss below.

3.3.2.1 Two n-words

Restricted to the same clause, two or more n-words give only one negative meaning, therefore a NC meaning. An important note is that these sentences like those containing one n-word do not require the verbal negative marker tf-, indicated by their optionality in (58) and (59).

- (58) vot∫-megə vot∫-meg-un (t∫i)-sirets
 no-one no-one-DAT (NEG)-like.PERFV.3S
 'No one liked anyone.'
- (59) **votf**-meg afagerd **votf**-meg usutsitf-i **votf**-meg kirk (tfi)-dəvav no-one student no-one teacher-DAT no-one book (NEG)-give.PERFV.3S 'No student gave any teacher any books.'

3.3.2.2 n-words and a verbal negation

It is possible to utter (58) and (59) with a verbal negative marker; however, this does not add any additional negative meaning, as seen in (60). One verbal negative marker and any number of n-words in the same clause yield a NC interpretation of just one negation.

(60) **vot**J-megə **vot**J-meg-un **t**Ji-sire-r no-one no-one-DAT NEG,BE.3S-like-IMPFV 'No one likes anyone.'

When adding a verbal negative marker to a clause with n-words, the sentential stress shifts. The following sentences show that both n-words and verbal negative makers attract stress. As a basic property of WA, the pre-verbal word receives the main intonational stress as in (61) with stress on *pan*. When verbal negation is present the stress shifts to this marker as in (62).¹³

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- (61) Aramə <u>pan</u>-mə gerav Aram thing-INDEF ate.3S 'Aram ate something.'
- (62) Aramə pan-mə \underline{tfi} -gerav Aram thing-INDEF NEG-ate.3S 'Aram didn't eat anything.'

As was seen above, (62) could be expressed with an n-word, or with an n-word with an accompanying tf-. An n-word in a sentence receives sentential stress regardless of whether it is immediately pre-verbal, as in (63), or not, as in (64).

- (63) Aramə vot∫-meg-pan gerav
 Aram no-one-thing ate.3S
 'Aram didn't eat anything.'
- (64) vot∫-megə salor-mə gerav no-one plum-INDEF ate.3S 'Nobody ate a plum.'

When both an n-word and a verbal negative marker appear in the same sentence, the main stress preferentially falls on the verbal negative marker seen in the two examples

¹³If the verbal negative form is tf_{θ} , it is not stressed, since [θ] cannot host stress in WA (Vaux 1998).

below. There is however a secondary less-pronounced sentential stress on the n-words.

- (65) Aramə votf-meg-pan tfi-gerav Aram no-one-thing NEG-ate.3S 'Aram didn't eat anything.'
- (66) votf-megə salor-mə t∫i-gerav
 no-one plum-INDEF NEG-ate.3S
 'Nobody ate a plum.'

For the case of two or more n-words, speakers seem to stress all the n-words fairly equally in sentences like (67) and (68). Again in (68) the primary stress falls on the tf.

- (67) **vot**J-megə **vot**J-meg-pan gerav no-one no-one-thing ate.3S 'Nobody ate anything.'
- (68) votf-megə votf-meg-pan t**fi**-gerav no-one no-one-thing NEG-ate.3S 'Nobody ate anything.'

3.3.2.3 without-clauses

As seen in the previous section, a *without* phrase can contain an n-word or verbal negation. However as in the main clause of a sentence, verbal negation, n-words and the preposition *arants* can occur in the same *without* phrase as see in (69). Therefore NC is also possible in the same *without* phrase. As seen in (70) and (71) *arants* can appear with just an n-word or just a verbal negative marker and give only one negation.¹⁴

- (69) arants vot∫-meg-pan t∫-ude-l-u təbrots katsi
 without no-one-thing NEG-eat-INF-DAT school go.PERFV.1S
 'I went to school, without eating anything.'
- (70) arants vot∫-meg-pan tide-l-u kirk gartatsi
 without no-one-thing watch-INF-DAT book read.PERFV.1S
 'I read a book, without watching anything.'

¹⁴Some speakers find this string, namely the co-occurrence of the preposition *arants* 'without' with the verbal negative marker t/i-, unacceptable. Therefore when discussing the facts about the co-occurrence of these two morphemes, I am referring to the judgements of only those speakers who find the co-occurrence acceptable. What is of interest for me, as I've mentioned before, is whether a single negation interpretation results or a double negation one.

(71) **arants** heradesil **t**fi-tide-l-u kirk gartatsi without television NEG-watch-INF-DAT book read.PERFV.1S 'I read a book, without watching television.'

Finally an n-word and a verbal negative marker can co-occur within a *without*-clause, marked by the instrumental postposition as in (72). Thus, the generalization for *without* phrases is that if there is at least one negative item, a negative meaning results, if another negative item is added the negative meaning is maintained.

(72) **vot** J-meg-pan **t** J-ude-l-ov təbrots katsi no-one-thing NEG-eat-INF-INST school go.PERFV.1S 'I went to school, without eating anything'

3.3.2.4 n-words and prohibitive

Lastly, the prohibitive marker mi- can appear with n-words in the same phrase giving a NC reading as seen from the example in (73).¹⁵

(73) **vot**J-meg-pan **mi**-ude-r! no-one-thing PROH-eat-2S 'Don't eat anything!'

In summary, in Western Armenian negative concord occurs when two or more n-words occur in the same clause, when one verbal negative marker occurs with any number of $\hat{}$ n-words in the same clause, when n-words and/or verbal negation is found inside a phrase headed by the negative preposition *arants*, and when an n-word is in the same phrase as the prohibitive maker *mi*-.

3.3.3 Double Negation

In this section I present five cases where two or more negative items yield a double negation (DN) reading, giving a positive interpretation.

3.3.3.1 Verbal negations

When two verbal negative markers in the same clause are used, a DN meaning arises, as see in (74) and (75). More than one verbal negative morpheme is only possible in the

¹⁵The prohibitive is equivalent to saying the negative imperative.

presence of modals or auxiliaries, as seen with the auxiliary e 'be' in (74) or the future marker modal *bidi* in (75) which can both host verbal negation. As seen in (76) two verbal negative markers can not stack on the same verb.

- (74) tun gato-n bedk-t∫-e t∫-ude-s
 2S.NOM cake-DEF must-NEG-BE.3S NEG-eat-2S
 'You must not not eat the cake.' ~ 'You must eat the cake.'
- (75) tf∂-bidi tf-erta-m
 NEG-will NEG-go-1S
 'I will not not go.' ~ 'I will go.'
- (76) *dʒaʃ tʃi-tʃə-gera food NEG-NEG-eat.PERFV.1S

3.3.3.2 Across CPs

Another instance of double negation is found across clauses. In WA a subordinate clause headed by for example *vor* 'that' is a sufficient clause boundary to create a DN interpretation. This is seen in almost all negative concord languages (Giannakidou 2000:492). If two n-words or verbal negative markers or a combination of the two are divided by a clause boundary then a DN meaning surfaces as see in (77) and (78). In (77) a verbal negative marker is found in the matrix clause and an n-word is found in the subordinate clause. In (77) we see the reverse with again a DN meaning.

- (77) Aramə t**fi**-kide-r [vor **votf**-megə dʒaf gerav] Aram NEG.3S-know-IMPFV [C no-one food eat.PERFV.3S] 'Aram does not know that no one ate food.'
- (78) **vot**f-megə kide [vor Aramə dʒaʃ tʃi-gerav] no-one know.IMPFV.3S [C Aram food NEG-eat.PERFV.3S] 'No one knows that Aram did not eat food.'

3.3.3.3 Across without-clauses

Another clause boundary that seems to be relevant for the computation of interpretation are those with *without* phrases. When a negative item is present in the main clause that contains a *without* phrase, a DN meaning is found as seen by the example in (79).¹⁶

¹⁶For some speakers the DN interpretation is difficult to get and instead of a NC meaning they reject the sentences as not possible. This difficulty demonstrates that a simple NC interpretation is not present with

(79) [arants ude-l-u] təbrots t∫i-katsi [without eat-INF-DAT] school NEG-went.1S 'I didn't go to school without eating anything.'

The sentence in (79), having a DN interpretation, results in a positive meaning, where the (non-negative) action, of 'eating', inside the *without* phrase takes place and then the action of 'going' in the main clause. With any type of negation in the *without* phrase, nword, verbal negation or negative preposition, and any type of negation in the main clause, n-word or verbal negation a DN meaning arises. The following two sentences show that once again with two negative morphemes across such a boundary, we get double negation. In (80) the nominalized verb is carrying the verbal negation morpheme. With the n-word in the matrix clause, this verbal negative marker produces a DN meaning.

(80) [(pan-mə) tfi-kəne-l-ov] votf-meg-der katsi [(thing-INDEF) NEG-buy-INF-INST] NEG-one-place went.1S "Without buying anything I went nowhere"

The indefinite object of the nominalized verb in (80) can be replaced with an n-word and give the same double negation reading with the presence of a matrix negative morpheme as seen in (81).

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(81) [votf-meg-pan kəne-l-ov] votf-meg-des katsi [no-one-thing buy-INF-INST] NEG-one-place went.1S 'Without buying anything I went nowhere.'

In (81) the nominalized verb can also be in the perfect as in (82), without carrying any case. The perfect never takes case. However this would not explain why the infinitive would take case for the same exact sentence.

(82) [votʃ-meg-pan kən-adz] votʃ-meg-deʁ katsi
 [no-one-thing buy-PERF] NEG-one-place went.1S
 'Without having bought anything I went nowhere.'

Up to this point the following generalizations hold. Within a clause, any number of n-words yield one negative meaning. On the other hand, each verbal negative morpheme contributes a negation. The interaction of negation is restricted to domains, for now these

these sentences and that something more is going on which needs to be explained.

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are CPs and *without*-clauses. Therefore two negative morphemes across these boundaries results in DN.

3.3.3.4 Constituent negation

Finally a negation prefix an- 'un-' and other derivational negative prefixes yield DN meanings as in (83).

(83) votf-meg an-hujs afagerd təbrots kənats
no-one un-hope student school go.PERFV.3S
'No hopeless student went to school.' ~ 'Hopeful students went to school.'

As I showed in (57) repeated below as (84) these negative prefixes yield DN meanings with verbal negation unlike n-words in (56) repeated as (85).

- (84) Arame an-hamper tf-e-r
 Aram un-patient NEG-BE-PAST.3S
 'Aram was not impatient.' ~ 'Aram was patient.'
- (85) Aramə votf-meg-des tf-e-r Aram no-one-place NEG-BE-PAST.3S 'Aram was nowhere.'

3.3.3.5 Infinitival complements

Negative concord and double negation facts are not as straightforward with more complex verbal structures. Interesting patterns arise with modals and verbal morphemes like 'can, will, must, be.' Looking at the minimal pair below, in (86) a negative concord reading is attested, whereas in (87) an overwhelming majority of speakers report a double negation meaning. The difference between these two sentences is the placement of the verbal negative marker. In (86) the negative marker is on the finite verb 'can' which carries with it tense and agreement morphology. On the other hand the verbal negative marker in (87) is on the infinitive form of the verb 'eat'. Unexpectedly (87) gives a double negation meaning with an n-word and just one verbal negative marker. Modal interactions, more examples of these judgments and a possible explanation will be presented later on in the chapter in §3.4.4.

(86) Aramə votf-meg-pan bidi tfi-gərna ude-l Aram no-one-thing will NEG-can.3S eat-INF NC 'Aram is going to be able to eat nothing.' (87) Aramə votf-meg-pan bidi gərna tf-ude-l Aram no-one-thing will can.3S NEG-eat-INF DN 'Aram is going to be able to not eat nothing.'

A second instance of double negation with infinitival complements is seen with analytic causative constructions presented in §2.6.3. For these causatives, reproduced below as (88) and (89), negation can be hosted by either the infinitival verb of the causative introducing verb 'give' da.

- (88) Aram-in pana-l t∫∂-dəvi
 Aram-DAT open-INF NEG-give.PERFV.1S
 'I didn't make Aram open it.'
- (89) Aram-in t∫∂-pana-l d∂vi
 Aram-DAT NEG-open-INF give.PERFV.1S
 'I made Aram not open it.'

When adding an n-word subject to these constructions a difference in interpretation arises. With the verbal negative marker on the tensed verb 'give' da- a NC reading results seen in (90). When the verbal negative marker is embedded within the infinitival complement of the causative construction a DN reading results.

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- (90) vot∫-megə Aram-in pana-l t∫ə-dəvi
 no-one Aram-DAT open-INF NEG-give.PERFV.1S
 'No one made Aram open it.'
- (91) vot∫-megə Aram-in t∫ə-pana-l dəvi
 no-one Aram-DAT NEG-open-INF give.PERFV.1S
 'No one made Aram not open it.'

To summarize, double negation meanings arise in Western Armenian when two verbal negative markers appear in the same clause, when an n-word and a verbal negative marker appear across a CP boundary, when the negative preposition *arants* appears in a different clause than an n-word or verbal negative maker, when a constituent negation marker corresponding to the English *un*- appears with any other negative morpheme in the same clause, and when a verb that takes an infinitival complement is marked with a negative marker with an n-word higher in the matrix clause. In what follows I account for all of these cases of double negation.

3.4 Accounting for Negative Concord

There is a large pool of literature discussing many languages with n-words, negative concord, and NPIs. There are a few different approaches as to how to account for the distribution of NC cross-linguistically. Some of the recent literature that includes discussion and analysis of n-words are: Ladusaw (1992), Giannakidou (2000), Herburger (2001), de Swart and Sag (2002), Watanabe (2004), Zeijlstra (2004, 2008) and Penka (2007) and references within each of them. All of these approaches fail to account for a certain aspect of the data available in the literature. In this chapter I only look at how Zeijlstra's (2004, 2008) analysis would account for the Western Armenian data. Zeijlstra seems to account for the greatest number of languages exhibiting negative concord, but still all of the languages discussed are Indo-European, except for Hungarian, Hebrew and Berber.¹⁷

3.4.1 Syntactic Agree, Zeijlstra (2004)

Zeijlstra (2004, 2008) proposes a feature checking explanation to account for the different types of negative concord. He extends syntactic Agree to negation, where negative morphemes carry either interpretable [iNEG] or uninterpretable [uNEG] features (Zeijstra 2008:21). All [uNEG] features need to be checked by an [iNEG] feature and deleted before interpretation. Two conditions must hold for this checking to occur. First, the [iNEG] feature must be in a c-commanding relation to the [uNEG] feature. Second, both [iNEG] and [uNEG] need to be in the same domain/phrase. Another assumption about the syntactic theory used is that of multiple Agree where one [iNEG] can Multiply Agree (Ura 1996, Hiraiwa 2005) with many [uNEG]s.¹⁸ The clause boundedness of negative concord, which was discussed above in §3.3, reflects the locality conditions on syntactic agreement.

3.4.2 Application of the Syntactic Agreement Approach

Before applying Zeijlstra's (2004) system to the Western Armenian n-words I will go through how we treat strict and non-strict negative concord n-words. I will use Czech as an example

¹⁷Negative Concord outside of the Indo-European family needs to be investigated and incorporated into these theories. Western Armenian is also an Indo-European language, however it is part of the still understudied Armenian branch of the family.

¹⁸Haegeman & Lohndal (2010) demonstrate how positing multiple Agree is not necessary and a more restrained Agree suffices. In their system, following Pesetsky and Torrego (2007), two [uNEG] features are able to agree and result in one [uNEG] feature. This resulting feature then is checked by the [iNEG] feature in the structure. Therefore a stepwise Agree process instead of a one-step Multiple Agree.

of a strict NC language and Portuguese as an example of a non-strict NC language. As I outlined above in a strict NC language a subject n-word can and must co-occur with verbal negation, as in (92) seen with Czech. In a non-strict NC language a subject n-word does not yield a negative concord reading with verbal negation if it co-occurs in the same sentence, as in (93) seen with Portuguese.

(92) Nikdo nevolá n-body NEG.calls 'Nobody is calling.'

[Czech] (from Zeijlstra, 2008:214)

(93) Ninguém (*não) veio N-body NEG came 'Nobody came.' [Portugues

[Portuguese] (from Zeijlstra, 2004:130)

In Zeijlstra's (2004) approach, the feature the verbal negative marker bears differentiates strict and non-strict NC languages. In Czech the negative marker *ne*- is marked with a [uNEG] feature, on the other hand in Portuguese the negative marker *não* carries an [iNEG] feature. Zeijlstra (2004) motivates the difference between the features on the verbal^{1,1} negative markers by scope facts with respect to quantifiers. In a strict language like Czech quantifiers can surface linearly preceding the negative marker and yet must scope below negation as seen in (94). Whereas in a non-strict language like Italian negation cannot^{2,4} scope above a quantifier preceding it like in (95).¹⁹

- (94) Milan moc nejedl
 Milan much neg.eat.perf
 'Milan hasn't eaten much.' neg > much, *much > neg (Zeijlstra (2004:168))
 [Czech]
- (95) Gianni molto non ha mangiato
 Gianni much neg has eaten
 'Gianni hasn't eaten much.' *neg > much, much > neg (Zeijlstra (2004:168))
 [Italian]

In the Czech example in (94), the verbal negative marker bears a [uNEG] feature, which needs to be checked off by a [iNEG] feature. As I will show below, this [iNEG] feature is introduced by a covert negative operator as a Last Resort. The covert negative operator

¹⁹Zeijlstra (2004, 2008) also discuss negative imperatives in connection to the distinction between strict and non-strict languages. This is a topic for future research with respect to WA.

is located above the entire phrase in (94) and is the locus of semantic negation. Therefore with the quantifier lower than this negative operator in the structure, negation scopes above the quantifier. Looking at Italian in (95) where the verbal negative maker bears a [iNEG] feature, the opposite scope reading surfaces. This is the case since, there is no higher, covert negative operator in (95), above the quantifier. The locus of negative meaning is at the verbal negative marker. Therefore the quantifier scopes above negation in (95).²⁰

In Portuguese, and more generally non-strict negative concord languages, subject nwords, like those in Italian, differ from their object n-words. In this subset of negative concord languages, a verbal negative marker is disallowed in the presence of subject nwords. In these cases, the [iNEG] bearing morpheme is phonetically null from the sentence as shown in (96). Since there are no morphemes that carry a needed [iNEG] feature, a covert negative operator, $Op \neg$, is inserted in the Spec, NegP position. The NegP is argued to be dominating the vP which contains both the object n-word and the verbal negative marker. The result is as expected one interpretable negative feature. It is important to note that unlike the subject n-words of Portuguese, there is no need for a covert negative operator in the derivation for object n-words since the object n-word [uNEG] features are checked off by an already existing [iNEG] bearing element in the sentence (the verbal negative marker). Zeijlstra (2004) points out that this is an important feature of the checking system. The covert operator is inserted as a Last Resort mechanism, if any unchecked [uNEG] features result.

(96) $[NegP \ Op \neg_{[iNEG]}[vP \ ninguém_{[uNEG]} \ veio]]$

Ninguém (*não) veio N-body NEG came 'Nobody came.'

[Portuguese] (from Zeijlstra, 2004:130)

Shifting to a strict negative concord language, in Czech, subject n-words require a verbal negative marker, just like the object n-words. Both carry [uNEG] features. As a result the evaluation of the Czech subject n-words are similar to that of their object counterparts. As seen in (97), a negative operator carrying an [iNEG] feature is inserted c-commanding

²⁰Another approach to analyzing the negative concord differences between strict and non-strict languages is to assume that all verbal negative markers bear [iNEG]. The difference between the two types of languages is relegated to subject n-words being able to reconstruct below negation in strict languages but not in nonstrict languages. I leave this possibility for future research.

the subject n-word. Checking of the negative features occurs before interpretation and one negation results. As before the [iNEG] multiply agrees with the [uNEG] features of the n-word nikdo and the verbal negative marker ne.

 $(97) \qquad [NegP \ Op \neg_{[iNEG]}[vP \ nikdo_{[uNEG]} \ nevola_{[uNEG]}]]$

*Nikdo ne*volá n-body NEG.calls 'Nobody is calling.'

[Czech] (from Zeijlstra, 2008:214)

In Czech the object n-word *nikomu* surfaces with the verbal negative marker *ne*- as seen in (98). Both the n-word and the verbal negative marker are carrying a [uNEG] feature which needs to be checked off before interpretation. Therefore a covert negative operator is inserted. For checking to occur the [uNEG] feature bearing n-word must raise to a specifier position as demonstrated below. At this point the covert negative operator, which is ccommanding both the n-word and the verbal negative marker in the same clause, checks the unchecked [uNEG] features and the sentence gets sent to be interpreted. At LF there is one [iNEG] and this feature gets interpreted resulting in one negation.

(98) $[NegP \ Op \neg_{[iNEG]}^{\sim}[vP \ nikomu_{[uNEG]} \ [vP \ Milan \ t_{obj} \ nevola_{[uNEG]}]]]$

Milan *nikomu ne*volá Milan n-body NEG-call 'Milan doesn't call anybody.'

[Czech] (from Zeijlstra, 2008:14)

Both of the Czech examples in (97) and (98) require a verbal negative marker ne in the presence of an n-word. However ne does not bear any interpretable negation and would therefore seem superfluous. I can not claim to know why such a restriction holds in the strict negative concord languages. The verbal negative marker can be viewed as an agreement marker similar to φ -agreement. Zeijstra (2008b:151; 2009) states that there is no semantic advantage to having the verbal negative marker present with an n-word in the same clause with both bearing [uNEG]. He therefore relegates the explanation of such a *doubling* of negative morphemes to the realm of phonology. I leave this issue aside for the time being.

In Portuguese, the object n-words require a verbal negative marker as seen in example (99). The Portuguese object n-word *ningém* in this case is c-commanded in the same clause by the verbal negative marker $n\tilde{ao}$. The [uNEG] feature of the n-word is checked off

by the verbal negative marker's [iNEG] feature since they are in an appropriate checking configuration. The sentence moves onto interpretation and the one interpretable negative feature contributes the negative meaning.

(99) $[N_{egP} [N_{eg} n \tilde{a} o_{[iNEG]} [v_P O \text{Rui viu } ning \acute{e} m_{[uNEG]}]]]$

O Rui não viu ningém Rui NEG looked at.n-body 'Rui didn't look at anybody.'

[Portuguese] (from Zeijlstra, 2004:130)

In this section I have demonstrated how Zeijlstra's (2004) framework accounts for strict and non-strict negative concord languages. For more details on his approach consult Zeijlstra (2004; 2008). Penka (2007) addresses in great detail some loose ends and issues that result from Zeijlstra (2004).

To summarize, in negative concord languages all n-words carry [uNEG] features.²¹ Different assumptions need to be made with respect to sentential negation for strict and nonstrict languages. The difference between strict and non-strict languages is accounted for using the feature on verbal negation. In strict NC languages verbal negation carries [uNEG] and in non-strict NC languages the verbal negation marker carries an [iNEG] feature. Therefore Czech *ne*- carries [uNEG], while Portuguese *não* carries [iNEG].²² In double negation languages like Standard English all n-words and negative morphemes carry [iNEG]. Each instance of [iNEG] contributes one negative value to the semantics. All [uNEG] features need to be checked, therefore all n-words in strict NC languages and preverbal n-words in non-strict NC languages will require a licensor that is not found in the covert phonological sentence. In these cases a covert negative operator (Op¬) is posited in Spec, NegP that contributes the negation. This negative operator carries an [iNEG] feature.

3.4.3 Back to Western Armenian

Turning now to Western Armenian, I will show how negative features of non-strict NC languages, namely an [iNEG] feature for verbal negation markers, accounts for the facts of

 $^{^{21}}$ There are some languages like Afrikaans where n-words bear [iNEG] and the verbal negative marker bear [uNEG]. Multiple occurrences of n-words results in double negation, but multiple verbal negative markers yield negative concord (Zeijlstra 2004).

²²Another possibility is to say that the n-words are able to reconstruct under verbal negation to check their [uNEG] feature in Czech but not in Portuguese. Reconstruction would be possible since it's assumed that the n-words originate below the negative marker. This would also explain the quantifier scope differences between the two languages.

what seems to be a strict negative concord language. Western Armenian subject and object n-words are treated the same as is the case with the strict NC languages. Both can occur with or without a verbal negative marker as repeated in (100) and (101) below.

(100) votf-megə dʒa $\int (tfi)$ -gerav no-one food (NEG)-ate.3S 'No one ate food.'

(101) Aramə votf-meg-pan (tfi)-desa Aram no-one-thing (NEG)-saw.1S 'Aram saw nothing.'

Since subject and object n-words are treated the same in Western Armenian, adopting Zeijlstra's (2004) assumptions, WA ought to be a strict NC language where n-words and verbal negation would carry [uNEG] features, like Czech or West Flemish.²³

Below I show how WA verbal negation carrying an [iNEG] feature like non-strict languages can account for the data above, since every instance of a verbal negation, tfi, contributes a negation to the semantics as is seen by examples like in (102).²⁴ Intuitively this seems like a universal notion that any two verbal negative markers would yield two separate negations. Given the present system of negative features, in strict NC languages, where the verbal negative marker bears a [uNEG] feature, theoretically it is possible to have two⁴⁴ verbal negative markers in the same domain yielding one negative meaning. Afrikaans is one such example of a language where two verbal negative markers yield one negative meaning (Zeijlstra 2004). However this is not the case in WA. An issue of domains arises with Western Armenian when attempting to account for negation facts using Zeijstra's (2004) strict negative concord language features, namely for (102), where two verbal negative markers seem to be in the same domain, yet yield DN.

2.5

(102) $tf \Rightarrow bidi tf - ude - m$ NEG-will NEG-eat-1S 'I will not not eat.' ~ "I will eat"

²³It seems that all SOV negative concord languages are strict negative concord languages (Zeijlstra (2004). Further investigation is required to see what this tells us about SOV languages.

 $^{^{24}}$ As Penka (2007:81) points out in her footnote 49, "Clauses containing three of more NIs (or *pas*) do not have readings with more than two negations. This de facto limit on the number of semantic negations is presumably due to limitations of the processing capacities. More than two negations can simply not be processed by the interpretative system." I follow her same assumption about processing and will not discuss cases with three or more [iNEG] bearing morphemes.

Below I demonstrate how the checking works in Western Armenian, showing how the facts can be accounted for by assigning an [iNEG] feature to the verbal negative marker, instead of the expected [uNEG] for a strict negative concord language.

3.4.3.1 Reminder of Western Armenian Facts

In this subsection I will go through what facts need to be accounted for with respect to the interactions of Western Armenian n-words and verbal negative markers. Two assumptions that I carry over from all other negative concord languages, and which I extend to Western Armenian, are that all n-words carry [uNEG] features and that the phenomenon of negative concord is bound to a certain domain. This domain is at most a CP for all languages as seen above when comparing NPIs to NCIs. Zeijstra (2004:266-269) discusses the issue of locality and how negative concord is under syntactic locality restrictions.

There are two facts about the interaction of n-words and verbal negative markers in WA that need to be accounted for with any given system of negative features. The first is that a NC reading arises with the presence of an n-word and a verbal negative marker on either the future marker *bidi* as in (103) or with a verbal negative marker on the tensed verb as in (104). Both (103) and (104) have the same interpretation, namely that of NC.²⁵

- (103) votf-meg-pan tfə-bidi ude-m no-one-thing NEG-will eat-1S 'I will eat nothing.'
- (104) votf-meg-pan bidi tf-ude-m no-one-thing will NEG-eat-1S 'I will eat nothing.'

Since negative concord is restricted to a domain and negative concord with either verbal negative marker and an n-word as seen in (103) and (104) holds, then both verbal negative marker and n-word are in the same domain for each example. Therefore the negative marker on "will" in (103) and the n-word are in the same domain and the negative marker on "eat" in (104) and the same n-word are in the same domain.

The second WA fact that needs to be taken into account is that with two verbal negative markers, one on the future marker *bidi* and the other on the tensed verb a double negative

 $^{^{25}}$ The modal *can*, unlike *will* takes tense and agreement, and acts differently in terms of negative domains, which I analyze in §3.4.4.

meaning results as once again repeated in (105).

(105) tf bidi tf-ude-m NEG-will NEG-eat-1S 'I will not not eat.' ~ 'I will eat.'

Therefore given the four facts that NC is domain bound, all n-words carry [uNEG], NC arises in (103) and (104), and DN results in (105), I will go to the discussion of the possible features that verbal negations would be carrying in WA. The three logical possibilities that seem viable options are that either all verbal negative markers carry [uNEG] (like in strict-NC languages), either all carry [iNEG] (like in non-strict languages) or some carry [uNEG] and others carry [iNEG]. The third option is not attested in any language, and since this third option seems more undesirable theoretically I will put it aside as improbable.

The main difference between the two remaining approaches is the issue of the domain of negative concord. As shown above negative concord is restricted to a certain domain. Assuming an [iNEG] feature on the verbal negative marker in WA, this domain can be as large as a CP as will be demonstrated in the next subsection. However, with a [uNEG] feature, for verbal negation, the domain must be smaller than a CP. The example in (105) shows that two verbal negative markers in the same CP yields a DN meaning. If the verbal negative markers bear [uNEG] features then two covert negative operators are required to give the DN interpretation like in (106). If the two verbal negative markers are in the same domain then only one covert negative operator would be inserted due to the Last Resort principle implemented in Zeijlstra's (2004) system. This will incorrectly yield only one interpretable negation at LF as seen in (107), giving a predicted NC reading.

- (106) $[Op \neg_{[iNEG]} tf \partial_{[uNEG]} bidi] [Op \neg_{[iNEG]} tf_{[uNEG]} ude-m]$
- (107) *[$Op \neg_{[iNEG]} tf \partial_{[uNEG]}$ -bidi $tf_{[uNEG]}$ -ude-m]

3.4.3.2 Negative concord with [iNEG] for verbal negation in WA

Now I will go through the different combinations of n-word and verbal negation and show how a syntactic agreement approach accounts for the negative concord facts presented above. I use the simple example sentence in (108) to demonstrate the checking. To reiterate all *votf* morphemes carry an uninterpretable negative feature, while the optional verbal negation tfi- morphemes carry interpretable features.

(108) votf-megə kirk (tfi)-gartats no-one book NEG-read.3S 'No one read any book.'

In the following trees I place the NegP projection in a dominance relation with vP which contains the base positions of the subject and object arguments as well as the verb being negated.²⁶ NegP in WA dominates not only vP but also TP, and specifically merges to a TP. I showed above that the verbal negative marker can attach to both the future modal and to the tensed verb requiring NegP to dominate both T and the future modal giving us the structure in (109).

(109)



In all the examples in this chapter I assume the subject is inside the vP when checking of the negative features occurs. WA is not strictly a head-final language. Certain phrases are head initial as discussed in §2.1.1. One of these phrases, relevant to the discussion at hand is the Future Phrase as seen in (109). I assume that arguments to the verb originate within vP and therefore would be linearly to the right of the future marker, since FutP is head initial. It is common for both subjects and objects to appear to the left of the future marker in utterances. The future marker provides us with an indication that scrambling to a higher position outside of the TP has occurred for these cases. Therefore I claim that the subject or object, whichever/both appear to the left of the future marker, have scrambled or raised out of the TP.

Taking the sentence in (108) and starting with only one verbal negation marker and no n-words we get the tree in (110) at some point in the derivation. There is no Neg feature

²⁶Zeijlstra (2004:165-181) discusses in detail the location of NegP with respect to other phrasal projections, the negative elements that can project NegP and the cross-linguistic availability of NegPs.

checking involved since there is only one [iNEG] feature which is interpreted at LF. The trees in (110) to (57) all have the same meaning of "No one read any book."²⁷



In addition to *mego* 'someone', other quantifiers, in either subject (111) or object (112) position also scope below negation. These readings further support the assumption that checking of the negative features of subject and object n-words occurs inside vP.²⁸ However, as I will go into detail below, this assumes checking of negative features pre-scrambling or pre-raising of the argument n-words.

Ξ.

(111)	amen afagerd təbrots tfi-kənats all student school NEG-go.PERFV.3S 'Not all students went to school.'	NEG > ALL
(112)	jes fad dʒaʃ tʃi-gera 1S.NOM much food NEG-eat.PERFV.1S 'I did not eat a lot of food.'	NEG > MUCH

When an n-word and verbal negation are present in a sentence the verbal negation's [iNEG] feature checks the n-word's [uNEG] feature as seen in the configuration in (113). Checking can occur since the [iNEG] feature is in a c-command relation with the [uNEG] feature and they are both in the same domain. In (113) there is only one n-word, namely the one in the subject position.

 $^{^{27}}$ As stated in §2.6.5 I have yet to find evidence of verb-movement in WA. Therefore for now I assume that verbs in WA do not raise.

²⁸Other readings (negation below quantifiers) are possible with the introduction of a focus phrase. The quantifier would be interpreted in the FocP above negation.





However, more than one n-word can be present in one clause, each carrying a [uNEG] feature as seen in (114). The only added mechanism is Multiple Agree (Ura 1996, Hiraiwa 2005), which takes place between the single [iNEG] and the multiple [uNEG]s of the n-words.



As discussed before, in Western Armenian the n-words can occur without the presence of a verbal negative marker. In these cases, like the tree in (115), the [uNEG] feature of the n-word is left unchecked. Therefore a null version of the verbal negative marker, $Op\neg$, is inserted carrying an [iNEG], which checks off the n-word's [uNEG]. To minimize stipulations and complications I place this covert negative operator in the same projection as the verbal negative marker, if it were present, namely NegP. The interpretation of a
sentence is no different comparing having an overt verbal negative marker versus a covert negative operator. In WA both bear [iNEG].



A negative concord reading is maintained when the future marker is inserted as in (116). As mentioned before there are a number of surface word orders possible. I assume checking to occur pre-scrambling with the arguments of the verb within the vP.

(116) bidi votf-megə kirk (tfi)-garta FUT no-one book NEG-read.3S 'No one will read any book.'



As I've discussed before, WA is a scrambling language and the arguments of a verb with respect to the future marker is no exception. Besides the linear order found in (116), many other orders are possible, including those in (118), all resulting in more or less the same interpretation of 'No one will read any book' modulo topic and focus differences.

(118) bidi kirk votf-megə (tfi)-garta votf-megə bidi kirk (tfi)-garta votf-megə kirk bidi (tfi)-garta kirk bidi votf-megə (tfi)-garta kirk bidi (tfi)-garta votf-megə bidi kirk (tfi)-garta votf-megə

3.4.3.3 DN with [iNEG] for verbal negation

When two negative markers appear in a clause, namely in complex verbal constructions discussed above, a double negation reading arises. An example is repeated in (119). Each verbal negative marker carries an [iNEG] feature as seen in (120). The lower verbal negative marker's [iNEG] will check the [uNEG] feature of the n-word in the subject position.

(119) votf-megə kirk tfə-bidi tfi-garta no-one book NEG-will NEG-read.3S 'Nobody will not read any book.'



146

The example in (120) is minimally different from (117), with the simple addition of a second verbal negative marker. This negative marker prefixes onto the future marker *bidi*. Up to this point I have been assuming that NegPs headed by tfi- 'NEG' attaches to TPs. However in (120) there is only one TP, therefore the second negative marker is attaching to the FutP.

3.4.3.4 DN across CPs

Another case of double negation that I presented is across-clause negations. These are cases where there are two negative elements, either n-words or verbal negation, where each is in a separate clause. This is clearly demonstrated across a CP boundary, as seen by the following two examples. In (121) there is an n-word in the matrix clause and a verbal negation in the embedded clause. The n-word's [uNEG] feature cannot be checked off by the embedded verbal negation's [iNEG] features since the [iNEG] is not in the same clause.



In (123) the n-word is in the embedded clause and a verbal negative marker is found in the matrix clause. Here the verbal negative marker is in a c-command relation with the lower n-word. However the [iNEG] of this negative marker cannot check off the [uNEG] feature of the n-word since they are separated by a clause boundary as presented earlier. Therefore a covert negative operator is inserted in the embedded clause.

(123) Aramə tfi-gardzets [vor votf-megə dun kənats] Aram NEG.3S-think.PST.3S [C no-one home went.3S] 'Aram didn't think that no one went home.'



3.4.3.5 Negation across without-clauses

An interesting set of facts arise with *without*-clauses in WA with respect to interaction of the negative features. The three relevant negative morphemes that I assume bear negative features are *votf* 'no', *tf* 'NEG' and *arants* 'without'; I introduced these in §.2.5 and discussed their co-occurrences in §.3.3. All three can potentially co-occur in the same *without*-clause as in example (125).

(125) [arants votf-meg-pan tfi-kənel-u] dun katsi without no-one-thing NEG-to.buy-DAT home went 1S 'I went home without buying anything.'

Before further discussion of (125), I will first present matrix negation co-occurring with a *without*-clause. As mentioned above, an n-word and a verbal negative marker in the same clause yield a NC reading as in (126).

(126) votj-meg-kirk təbrots tji-dari
 no-one-book school NEG-take.PERFV.1S
 NC: 'I didn't take any book to school.'

The n-word in (126) is an argument of the verb and does not carry any case or adposition. A slightly different sentence, (127), has an instrumental marked n-word, which is not an argument of the verb. However the interpretation of the utterance is still that of negative concord. This is the first of three types of *without*-clauses that I will analyze below.

(127) votf-meg-kirk-ov təbrots tfi-katsi no-one-book-INST school NEG-go.PERFV.1S NC: 'I went to school without any book.'

The second *without*-clause is one that is slightly different from (127). More material has been added in the *without*-clause, namely a nominalized verb, which the n-word is an argument of. The phrase *votf-meg-kirk garta-l-ov* 'without reading a book' contains one morphological negation, *votf* 'no', which is the head of the n-word. This n-word is not an argument or an adjunct of the matrix verb. The interpretation of (128) is that of double negation, one from the matrix verbal negative marker and the second from the *without*-clause. In (128) the n-word is too embedded within the adpositional phrase to be considered in the same domain as that of the matrix negation.

(128) votf-meg-kirk garta-l-ov təbrots tfi-katsi
 no-one-book read-INF-INST school NEG-go.PERFV.1S
 DN: 'I didn't go to school without reading any book.'

The instrumental marker with a nominalized verb, as in (128), is not the only context where a double negation meaning results. The presence of the preposition *arants* 'without' is sufficient to trigger a second interpretable negation, as in (129). With the presence of the negative preposition the n-word is marked with a dative case ending, since *arants* 'without' selects for a dative marked DP.

(129) arants votf-meg-kirk-i təbrots tfi-katsi without no-one-book-DAT school NEG-go.PERFV.1S DN: 'I didn't go to school without any book.'

To summarize, for *without*-clauses within already negated matrix clauses, a DN reading arises with the presence of a nominalized verb or a preposition *arants* 'without', as in (128) and (129). Whereas an instrumental or bare n-word *without*-clause results in a NC reading. In what follows I explore the different structures of these *without*-clauses and how the negative concord or double negation readings arise.

3.4.3.6 The structure of *without*-clauses

The *without*-clauses presented in the previous section are a third case where double negation readings arise. The first instance of double negation was with two verbal negative markers seen in $\S.3.3.3.1$ and the second was with two negative markers across a CP boundary in $\S.3.3.3.2$. The third case of double negation is a bit more complicated and this section aims to unravel the domain of negative concord for *without*-clauses.

Within a *without*-clause, a negative concord reading arises with any of the three negative morphemes together as in (130).²⁹ As I've been assuming for all previous examples, the verbal negative marker bares a [iNEG] feature. The lexical item *without* must therefore carry a [uNEG] feature since it interacts with either n-words or verbal negation or both to give a NC interpretation in the same clause.

(130) [arants votf-meg-pan tfi-kəne-l-u] dun katsi without no-one-thing NEG-buy-INF-DAT home go.PERFV.1S 'I went home without buying anything.'

So far I have been assuming a Reverse Agree relation between the [iNEG] and [uNEG] features, where the [iNEG] bearing morpheme c-commands and is in the same domain as the [uNEG] bearing morphemes. However for *without*-clauses the verbal negative marker does not c-command the [uNEG] bearing *arants* 'without' preposition as seen in the following

²⁹As I noted earlier, some speakers had a difficult time processing the example in (i), and could not interpret it. I put these speakers' judgements aside. All other speakers reported a negative concord reading.

tree in (131). A stipulation needs to be made that for these phrases checking is possible in the traditional Agree direction, where the [uNEG] feature bearing morpheme c-commands the [iNEG] feature bearing morpheme.³⁰ The crucial aspect of (131) is that only one interpretable negative feature surfaces, which in this case is contributed to the semantics via the verbal negative marker.

(131)



<u>t</u>---

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If without or just an n-word is the only negative element in the without-clause then a covert negative operator will be inserted to check off its [uNEG] feature, since no verbal negative marker would be present to do so. This is seen in (132) and its corresponding tree in (133), which minimally differs from (131) in that a covert negative operator is present where a verbal negative marker would have been present. Once again Agree needs to occur in both directions and one interpretable negation is sent off to LF.³¹

(132) [arants votf-meg-pan kəne-l-u] dun katsi without no-one-thing buy-INF-DAT home go.PERFV.1S 'I went home without buying anything.'

 $^{^{30}}$ The directionality of Agree has been hotly debated in the literature. A number of proposals have surfaced during the past decade which favor *Reverse Agree*, contra Chomsky (2000). Zeijlstra's (2004, 2008) framework is one such example, along with Adger (2003), Baker (2008), Wurmbrand (2011), and Bjorkman (2011).

³¹As discussed in §2.2.6 the dative marker has two allomorphs -u and -i, depending on the nominal it attaches to.





Looking to the simpler *without*-clause, we have a *without*-clause formed with the preposition *arants* 'without' seen in (134).

(134) [arants kirk-i] dun katsi without book-DAT home go.PERFV.1S 'I went home without any book.'

As I presented in the previous section, any *without*-clause that contains the preposition *arants* 'without' contributes a negation to the semantics of the sentence. This is seen again with (135), where a matrix n-word contributes one interpretable negation and the *without*-clause headed by *arants* 'without' contributes the second giving a DN reading.

(135) [arants kirk-i] votf-meg-der katsi without book-DAT no-one-place go.PERFV.1S DN: 'I went no where without any book.'

The matrix n-word's [uNEG] feature is checked off by a covert negative operator, just like before. However this covert negative operator is not able to check the [uNEG] feature of the preposition *arants* 'without'. If it were able to do so, a NC reading would arise. Therefore a second covert negative operator is present in the structure, namely within the *without*-clause, as seen in (136). When we get to interpreting the PP, we find that there is a [uNEG] feature which has not been checked, therefore our Last Resort covert negative operator bearing a [iNEG] is merged onto the PP projecting the NegP, resulting in the DN interpretation of (135).



Therefore the *without*-clause headed by *arants* 'without' is a domain for negative concord. Within these types of *without*-clauses we get negative concord among multiple negative morphemes as seen with (137) and its tree in (138). Any negative morpheme outside of these clauses will be in another domain, similar to the examples of across-CP boundaries seen in the previous sections.³²

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(137) [arants votf-meg-kirk-i] dun katsi without no-one-book-DAT home go.PERFV.1S 'I went home without any book.'



 32 To note, the preposition *arants* is a sufficient licensor of NPIs as in (i).

(i) arants vojeve-meg-pan-i dun katsi without any-one-thing-DAT home go.PERFV.1S 'Without anything, I went home.' The second type of *without*-clause which delimits a domain of negation is one with a nominalized verb as in (139). The NegP once again attaches to the TP made available by the infinitive marker on the nominalized verb as seen in (140).

dun katsi

no-one-thing eat-INF-INST home go.PERFV.1S 'I went home without eating anything." (140)DP NegP D -00 ŤΡ INST Neg Op¬_[iNEG] $v\mathbf{P}$ Т NEG -l ŃP INF $votf_{[uNEG]}$ -meg-pan udeno-one-thing eat

Inserting a n-word in the matrix of (139) a double negative meaning results, demonstrating that this second type of *without*-clause is indeed a domain of negation.

(141) [votf-meg-pan ude-l-ov] votf-meg-deʁ katsi
 no-one-thing eat-INF-INST no-one-place go.PERFV.1S
 'I didn't go anywhere without eating anything.'

Taking the nominalized verb out of the *without*-clause and having simply a negative DP marked with an instrumental marker as in (142), becomes too small to form a domain for negation.³³ The example in (142) shows that the *without*-clause n-word and the matrix

(i) hav-in hed pilaf gera chicken-DAT with pilaf eat.PERFV.1S 'I ate pilaf with the chicken.'

(139)

[vot∫-meg-pan ude-l-ov]

³³The instrumental marker is different from the other case markers in WA as I discussed in §2.2.6.4, in that it requires more structure. This case suffix *-ov* usually denotes a 'with' meaning. There is a postposition with a similar meaning. The suffix *-ov* can't be considered as a full fledged postposition since it doesn't select for a certain case bearing NP and that there is a full fledged 'with' denoting postposition hed in the language which selects for a dative marked NP as in (i).

verbal negative marker are in the same negative domain since the resulting interpretation is that of one negation. The *without*-clause in (142) does not have enough structure, either a nominalized head or a PP, seen in (143).



The generalization that accounts for all the facts given above for *without* type phrases is that the preposition *arants* 'without' and the nominalizer act as domain boundaries and without these phrases the negative morphemes of the *without* phrase end up being in the same domain as the matrix clause. This is seen with the repeated following three examples, where the first two result in a DN meaning and the third a NC meaning.

Ť

(144)	arants	vot∫-meg-kirk-i	təbrots	t∫i-katsi
. ,	without	no-one-book-DAT	school	${\tt NEG-go.PERFV.1S}$
	DN: 'I o	didn't go to schoo	l withou	it any book.'

- (145) votſ-meg-kirk garta-l-ov təbrots tʃi-katsi
 no-one-book read-INF-INST school NEG-go.PERFV.1S
 DN: 'I didn't go to school without reading any book.'
- (146) votf-meg-kirk-ov təbrots tfi-katsi no-one-book-INST school NEG-go.PERFV.1S **NC**: 'I went to school without any book.'

A verb in types of clauses as in (145) is first marked with an infinitival marker, which heads a TP.³⁴ The preposition *arants* 'without' introduces a domain boundary in the derivation, as seen in (144). Without *arants* 'without', the only way a domain boundary is able

 ⁽ii) hav-ov pilaf gera chicken-DAT with pilaf eat.PERFV.1S
 'I ate chicken and pilaf.'

³⁴For an in depth analysis of infinitives and their different structural complexities see Wumbrand (2001).

to be introduced into the derivation is with a nominalized verb as in (145). Without such a verbal component the negation within the *without*-clause, will be in the same domain as any negation found within the matrix clause. In the case of (146), the verbal negative marker on the matrix verb will be in the same domain as the n-word within the *without*-phrase, unlike (145).

3.4.4 Verbs with infinitival complements

Negative concord and double negation facts are not as straightforward with more complex verbal structures as presented briefly before. Specifically, interesting patterns arise with the presence of modals and verbal morphemes like "will, must, be" and verbs with infinitival complements like "can, want, decide..." The minimal triple that I will present an explanation for in this section is the difference between (147), (148) and ??. In (147) and (148) a negative concord reading is attested, whereas in ?? an overwhelming majority of speakers report a double negation meaning.³⁵

- (147) t∫∂-bidi gərna Aramə vot∫-meg-pan ude-l NEG-will can.3S Aram no-one-thing eat-INF NC: 'Aram is not going to be able to eat anything.'
- (148) bidi gərna Aramə votf-meg-pan tf-ude-l will can.3S Aram no-one-thing NEG-eat-INF NC: 'Aram is going to be able to not eat anything.'
- (149) votſ-meg-pan bidi gərna Aramə tſ-ude-l no-one-thing will can.3S Aram NEG-eat-INF DN: 'Aram is not going to be able to not eat anything.'

In this section I will first present the modals of Western Armenian with some of their scrambling and ordering restrictions. Then I will go through the negation facts and end up giving an explanation as to why some combinations of n-word and verbal negation give double negation whereas others result in negative concord.

 $^{^{35}}$ A fourth possible option is (i) where the verbal negative marker precedes the n-word, resulting in a NC reading.

vot∫-meg-pan bidi t∫i-gərna Aramə ude-l
 no-one-thing will NEG-can.3S Aram eat-INF
 NC: 'Aram is not going to be able to eat anything.'

3.4.4.1 Negation

In this subsection I will first go through the interaction of negation with infinitival complements and then present all the data for sentences with one n-word and one verbal negation. In some cases double negation meanings arise, eventhough both the n-word and verbal negation seem to be in the same clause.

As presented before either the subject or object of a sentence can be an n-word with no verbal negation. This holds true as well for the more complex VPs with the modals presented above, as seen with the examples in (150) and (151).^{36,37}

(150) vot J-megə χəntsor bidi gərna ude-l
 no-one apple will can.3S eat-INF
 'No one is going to be able to eat apples.'

votf DP will can-T V-INF

(151) Aramə vot∫-meg-pan bidi gərna ude-l
 Aram no-one-thing will can.3S eat-INF
 'Aram is not going to be able to eat anything.'

DP vot∫ will can-T V-INF

The verbal marker can go on any of the modals discussed in the previous subsection. The verbal marker tf- prefixes onto every modal as seen in (152) except for bedk 'must' in which case it can either precede, (153), or follow, (154), the word 'must'. There does not seem to be any scope or meaning difference between the pairs in (153) and (154).

- (152) tfə-bidi, tfi-gərna-, tf-e-, tf-əlla-, tf-e μ -adz NEG-FUT, NEG-can.T-, NEG-AUX.3S-, NEG-BE.T-, NEG-BE-PERF
- (153) tf-bedk-e, tf-bedk-es-adz, tf-bedk-əlla-, tf-bedk-uni-NEG-need-AUX.3S, NEG-need-BE-PERF, NEG-need-BE.T-, NEG-need-have.T-
- (154) bedk *tf*-e, bedk *tf*-es-adz, bedk *tf*-alla-, bedk *tf*-unineed NEG-AUX.3S, need NEG-BE-PERF, need NEG-BE.T-, need NEG-have.T-

Putting an n-word and a verbal negative marker on one of the modals in the same clause we expect negative concord readings as was seen with regular finite verbs like that

³⁶With each example in this section I have included a summarized glossed version of the linear order to make the examples more transparent. These glosses are found to the right of each example in bold, where 'V' is verb, 'T' is agreement, number and person as before, 'votf' is the n-word and 'NEG-' is a verbal negative marker.

 $^{^{37}}$ In the glosses for all these examples I do not indicate the NON-PAST-ness of the finite verb 'can' for simplicity.

in (155).³⁸

(155) Aramə votf-meg-pan tfi-gerav Aram no-one-thing NEG-ate.3S NC: 'Aram didn't eat anything.'

DP vot∫ NEG-V-T

In fact negative concord readings do come out with cases where the verbal negative marker is prefixed onto the future marker *bidi* as seen in (156). The same reading that is found in (156) can be obtained with placing the negative marker on the finite verb that linearly follows the future marker as seen in (157). Comparing (156) and (157), all speakers prefer to place the verbal negative marker on the finite verb as opposed to the bare future marker.³⁹ This preference is probably an effect of the prescriptive rule which usually disallows negation prefixed to the future marker.

(156) Aramə votf-meg-pan tfə-bidi ude Aram no-one-thing NEG-will eat.3S NC: 'Aram is not going to eat anything.'

DP vot NEG-will V-T

(157) NC: Aramə vot meg-pan bidi t f-ude

DP vot will NEG-V-T

Adding another verbal element in the same clause, in this case "can" we can get the sentence in (158) with a verbal negative marker on "will". As presented in section §2.4.4 "can" takes T and selects for an infinitival form of the verb.⁴⁰ The verbal negative marker can also be prefixed onto the finite verb "can" and result in a negative concord reading with a subject or object n-word as seen in (159).

(158) Aramə votf-meg-pan tfə-bidi gərna ude-l Aram no-one-thing NEG-will can.3S eat-INF NC: 'Aram won't be able to eat anything.' DP votf NEG-will can-T V-INF

(159) NC: Aramə votf-meg-pan bidi tfi-gərna ude-l DP votf will NEG-can-T V-INF

³⁸For every example I include 'NC' = Negative Concord and 'DN' = Double Negation in the gloss. Subject and object n-words are treated the same and give the same interpretations for all the examples in this section, as far as they have been tested. In all the examples in this subsection I have used object n-words arbitrarily.

³⁹For each pair of sentences there are preferences that most speakers agree on. I have not recorded all the judgments of all the pairs for time reasons. I will not discuss such preferences from now on or why they exist. However this is an important topic that needs to be further investigated in later works.

⁴⁰The pattern of "can" extends to the verbs that take infinitival complements. For a subset of these verbs that take infinitival complements in WA see the table in §3.6.2.

The puzzle of this section arises when the verbal negative marker is placed on the verb with the infinitive marker that is selected by the modal "can". In these cases a double negation reading arises as seen in (160).

(160) Aramə vot∫-meg-pan bidi gərna t∫-ude-l
 Aram no-one-thing will can.3S NEG-eat-INF
 DN: 'Aram won't be able to not eat anything.' DP vot∫ will can-T NEG-V-INF

The double negation reading of (160) almost disappears without the future marker, resulting in a negative concord reading. In the following section I discuss a possible explanation for this and other peculiarities.

(161) Aramə vot∫-meg-pan gərna t∫-ude-l Aram no-one-thing can.3S NEG-eat-INF NC: 'Aram is able to not eat anything.'

DP vot∫ can-T NEG-V-INF

An important observation that I will use to explain how to get the desired readings is the interpretation of (162) where the n-word is adjacent to the negated verb. The only difference between (161) and (162) is the position of the n-word. Western Armenian being a highly scrambling language, unsurprisingly allows both of these sentences; however, the judgments on the two sentences are a negative concord reading for (162) and double negation for (160).

(162) Aramə bidi gərna vot∫-meg-pan t∫-ude-l Aram will can.3S no-one-thing NEG-eat-INF NC: 'Aram will be able to not eat anything.' DP will can-T vot∫ NEG-V-INF

A negative concord reading is also found for sentences where the verbal negative marker linearly precedes the n-word, as in cases such as (163) where tfi is on "will" and the n-word is between "can" and the infinitive form of a verb.

(163) Aramə tfə-bidi gərna votf-meg-pan ude-l Aram NEG-will can.3S no-one-thing eat-INF NC: 'Aram will be able to eat anything.' DP NEG-will can-T votf V-INF

For completeness I also tested sentences where "can" is followed by a verb with a perfect marker. As seen in the previous subsection all perfect verbs are followed by a "be" form. In the case of the following constructions, this "be" form takes the infinitive marker, presumably since "can" selects for an infinitive phrase. With the verbal negative marker prefixing onto "will" or "can" a negative concord reading arises as seen in (164) and (165) respectively, as was the cases above.

- (164) votſ-megə tſə-bidi gərna vaz-adz əlla-l
 no-one NEG-will can.3S run-PERF be-INF
 NC: 'No one will have been able to run.' votſ NEG-will can-T V-PERF be-INF
- (165) vot∫-megə bidi t∫i-gərna vaz-adz əlla-l no-one will NEG-can.3S run-PERF be-INF NC: 'No one will have been able to run.' vot∫ will NEG-can-T V-PERF be-INF

If the verbal negative marker is placed on the perfect form of the verb or the infinitivized verb then a double negation reading arises as seen in (166) and (167). Once again this is parallel to the slightly simpler constructions above.

- (166) vot∫-megə bidi gərna t∫ə-vaz-adz əlla-l
 no-one will can.3S NEG-run-PERF be-INF
 DN: 'No one will have been able to not run.' vot∫ will can-T NEG-V-PERF be-INF
- (167) vot∫-megə bidi gərna vaz-adz t∫-əlla-l
 no-one will can.3S run-PERF NEG-be-INF
 DN: 'No one will have been able to not run.' vot∫ will can-T V-PERF NEG-be-INF

3.4.4.2 An Explanation via Scrambling

A few reminders and notes about the trees that I am using. I have decided to present trees that show the subject in its non-final position. Specifically the subject of all these sentences has not yet risen to the Spec, TP position. I am assuming that checking of the negative features occurs before this movement happens. The reason for this assumption is that both objects and subjects are treated the same way in terms of the checking of the negative features.

Returning to the three sentences presented at the very beginning of this section I will show how the desired readings for each case came about. In the first example, (168), the verbal negative marker surfaces on the verb that carries the infinitive marker. In this case I assume the position of the verbal marker is lower than the modals "will" and "can" as seen in the tree below, since semantically the lower (infinitival) verb is negated. The n-word, in this case the object, is linearly ordered after the modals but before the negated verb. The attested reading is that of negative concord. This can be explained with the tree below. The n-word is in the vP which is c-commanded by the verbal negative marker. Both negative elements are in the same clause and therefore checking between them is possible. The verbal negative marker's [iNEG] checks off the [uNEG] of the n-word inside the vP and the result is one [iNEG] giving a negative concord reading.

(168) bidi gərna Aramə vot∫-meg-pan t∫-ude-l
 will can.3S Aram no-one-thing NEG-eat-INF
 NC: 'Aram is going to be able to not eat anything.'

I have provided the underlying syntactic structures of the examples in this section to more clearly demonstrate the dominance relations of the relevant morphemes. The tree for (168) is found below. Western Armenian is a predominantly head-final language. However some phrases are head-initial as was seen in the §2.1.1, such as the models 'will' and 'can'. This is reflected in the trees below. Finally T is suffixed onto 'can' in all the examples below. 'will' never takes any inflection, aspect, or tense marking.



i in Anna The negative concord reading gotten from (163), reproduced below as (169) demonstrates that either the TP phrase boundary is transparent to a c-commanding [iNEG] bearing lexical item or that the n-word in (169) is in a different TP than the n-word in (168). I suggest that the correct generalization is that TPs are transparent to c-commanding [iNEG] heads as seen from the 2 TPs in (169). Therefore I assume that the n-words in (169) and (168) which are both linearly in the same position are syntactically also in the same position.

(169) **tfə**-bidi gərna Aramə **votf**-meg-pan ude-l NEG-will can.3S Aram no-one-thing eat-INF NC: 'Aram is not going to be able to eat anything.'



The unexpected reading is the reading of the third sentence, reproduced below as (170). Here the n-word linearly precedes the entire verbal complex unlike (168). The verbal negative marker is in the same location as in (168), namely on the verb with the infinitive marking. Assuming that the n-word in (170) c-commands everything that it follows, gives us the desired reading. In other words the n-word object has scrambled out of the vP and has raised to a position higher than "will" as seen by the tree below.⁴¹

With this configuration the [iNEG] that is carried by the verbal negative marker does not c-command the [uNEG] feature of the scrambled n-word. Since the [uNEG] feature of the scrambled n-word is left unchecked, a covert negative operator is inserted. This negative operator's [iNEG] feature can now check the [uNEG] of the n-word. The result is two [iNEG] features and therefore a double negation reading, which is the desired semantic interpretation. Unlike the other cases where the checking of the negative feature happens before movement of the n-word, in (170) the checking applies after the scrambling of the n-word.

(170) votf-meg-pan bidi gərna Aramə tf-ude-l
 no-one-thing will can.3S Aram NEG-eat-INF
 DN: 'Aram is not going to be able to not eat anything.'



 41 This is a case in which the movement of the n-word bleeds licensing (as opposed to the other cases looked at in this section, where that doesn't happen).

In the next example, (171), let us look at a sentence where the verb "can" is carrying negation. The verbal negative marker is adjoined to the higher TP and c-commands all the verbal elements. Both markers are in the same clause and the checking of the [uNEG] of the scrambled n-word is straightforwardly done by the verbal negation marker's [iNEG] as depicted in the tree below.

(171) votf-meg-pan bidi tfi-gərna Aramə ude-l no-one-thing will NEG-can.3S Aram eat-INF NC: 'Aram is not going to be able to eat anything.'



There is independent evidence that the object in the pre-"will" position as in (171) scrambled there from a lower base position. This evidence comes from question formation. Looking at the pair in (172) and (173), we see that in WA there is overt wh-raising to a pre-verbal position.

(172) Aramə gə-gardze vor Hagopə χəntsor gerav Aram IMPFV-think.3S C Hagop apple ate.3S 'Aram thinks that Hagop ate apples.'
(173) Aramə intf gə-gardze vor Hagopə gerav Aram what IMPFV-think.3S C Hagop ate.3S 'What does Aram think that Hagop ate?'

(174) *Aramə gə-gardze C Hagopə *intf* gerav?

The embedded wh-object obligatorily raises to the matrix pre-verbal position as seen by the ungrammaticality of (174) where the wh-phrase is in-situ. Turning now to n-words in complex verbal structures, an n-word or any non-wh-DP can appear in both pre-will and post-will positions as seen in (175) and (176).

(175) Aramə votf-meg-pan/χəntsor bidi gərna ude-l
 Aram no-one-thing/apple will can.3S eat-INF
 'Aram will be able to eat nothing/apples.'

(176) Aramə bidi gərna votf-meg-pan/xəntsor ude-l

We see that wh-DPs can only surface before the verbal complexes as seen in (177). Any other position is regarded as unnatural.⁴² This is parallel to the wh-phrase raising obligatorily out of the embedded CP seen above. Therefore since (176) is grammatical but (178) is not, I claim that the wh-phrase originated in the position found in (176) and raised resulting in (177).

- (177) Aramə *intf* bidi gərna ude-l Aram what will can.3S eat-INF 'What will Aram be able to eat?'
- (178) *Aramə bidi gərna *intf* ude-l *(*intf*) Aramə bidi (*intf*) gərna ude-l (*intf*)

⁴²These examples are grammatical only as echo questions.

3.4.4.3 Why not [uNEG] for verbal negation in WA?

I have been assuming that the verbal negative marker in Western Armenian carries a [iNEG] feature. However the other strict negative concord languages' verbal negative markers bear [uNEG] features in Zeijstra's (2004) system.⁴³

Assuming a [uNEG] feature for the verbal negative marker, any sentence with either an n-word or a verbal negative marker will trigger a covert negative operator carrying an [iNEG] feature, since n-words and verbal negative markers will need to have their [uNEG] feature checked off. This is seen with examples which correspond to (110) and (113), repeated as (179) and (180) below.

- (179) megə kirk tfi-gartats one book NEG-read.PERFV.3S 'No one read a book.'
- (180) votf-megə kirk tfi-gartats no-one book NEG-read.PERFV.3S 'No one read a book.'

In (181), corresponding to (179), one verbal negative marker and in (182), corresponding to (180), a verbal negative marker and an n-word all carrying [uNEG] features yield a NC reading. Straightforwardly in both cases one covert negative operator is inserted before interpretation, resulting in one interpretable negation. In (180), just as before for multiple n-words, checking via multiple agree would occur between the covert negative operator's [iNEG] feature and the c-commanded [uNEG] features.



⁴³One potential upside to positing a [uNEG] feature for the verbal negation in WA is that the lexical item arants 'without' would be able to bear a [iNEG] feature, which seems more intuitive.



Problems arise with the presence of the future marker *bidi* which is, as presented above, an untensed, uninflected, bare free standing morpheme that is always initial in its phrase. A verbal negative marker can also attach to this morpheme. As stated before any sentence with two verbal negative markers gives a double negation meaning. The example (183) with the DN meaning with two verbal negative markers indicates that the two NegP verbal negative markers must be in different domains.

(183) tʃə-bidi tʃi-gartam NEG-FUT NEG-read.1S 'I'm not going to not read.'

If the verbal negative marker carries a [uNEG] feature as has been the case in this subsection, a covert negative operator must be inserted for each verbal negative marker, to give the DN meaning. Therefore each verbal negative marker must be in a different domain, since negation is domain bound. If this domain boundary were not present then a single negative operator would be able to check off the [uNEG] features of both of the verbal negative markers, resulting in an incorrect NC meaning. The presence of two domains in (183) will present an issue for the pair (184) and (185), where both n-words and future markers occur.

- (184) vot∫-megə bid t∫i-garta no-one FUT NEG-dance.3S 'No one will read.'
- (185) votf-megə tfə-bid garta no-one NEG-FUT read.3S 'No one will read.'

In (184) the verbal negative marker surfaces on the tensed verb garta 'read', whereas in (185) the marker is on the future marker bid(i). When checking occurs, both the n-word and the verbal negative marker must be in the same domain/phase or else two covert negative operators result leading to an incorrect DN interpretation. Therefore a stipulation has to be made about this pair of examples. Somehow the same n-word in the same position must be in two different domains depending on which verbal negative marker is expressed. Instead of continuing with such a stipulation, I discard the possibility of the WA verbal negative marker as being able to bear a [uNEG] feature and stick to the analysis presented above of a [iNEG] feature bearing verbal negative marker.

3.4.5 Western Armenian compared to non-WA languages

In the next three sections I compare Western Armenian with three types of negative concord languages. I show how Western Armenian differs from these three types of languages and how we need to posit non-strict negative features for this strict negative concord language.

3.4.5.1 Western Armenian vs. West Flemish

In this subsection I look at West Flemish, which is an example of a strict negative concord language with optional verbal negation with the presence of an n-word. As discussed above, Western Armenian is also a negative concord language with optional verbal negative marking with any n-word. Therefore why can we not assume the negative features that are argued for West Flemish for Western Armenian? In both West Flemish and Western Armenian, double negation readings are possible, however with different syntactic manipulations. The minimal pair presented above and repeated in (186) and (187) shows a case of double negation in West Flemish. The negative adverb *nie* when surfacing after the n-word *niemand* as in (186) results in a negative concord reading. However when *nie* precedes *niemand* as in (187) a double negative reading arises.⁴⁴

⁴⁴Examples (i) and (ii) are taken from Haegeman and Lohndal (2010), abbreviated "H & L".







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Zeijlstra (2004:273) accounts for the minimal contrast of the above pair with the following argument. First, since West Flemish is a strict negative concord language both n-word *niemand* and verbal negation *nie* carry [uNEG] features. As discussed above both n-words and verbal negation need to be licensed by covert negative operators. However the licensing needs to be done in a local domain, namely in the same clause. In the case of (187), the negative operator that is inserted above the n-word is not high enough to license *nie* which is located above the n-word. Therefore a second negative operator is inserted c-commanding *nie* and checking off its [uNEG] feature. In (186) on the other hand only one negative operator is needed since the negative adverb is inside the clause where the n-word is located, and this negative operator is able to multiply check off both [uNEG] features. The result in West Flemish is a double negation reading in the same clause due to scrambling of a negative adverb above an n-word.

There is no negative free morpheme in WA that can scramble and give a DN interpretation. Scrambling n-words and verbs that carry the negative marker in WA also do not generate any differences in interpretation without the presence of a verb that introduces an infinitival clause:

(188) Aram must-not nothing eat = NC Aram must nothing not-eat = NC Aram nothing must not-eat = NC

The examples in (188) show that the n-word and verbal negative marker are always in the same clause and local enough to be licensed by the same negative operator. Western Armenian does exhibit double negative in the same clause, namely with two verbal negative markers. Since both negative markers are in the same clause as shown by (188), I claimed above that they carry [iNEG] features.

3.4.5.2 Western Armenian vs. Russian

Another possibility is to group WA with a Russian type language. These are strict NC languages, that unlike WA, require verbal negation with the presence of any n-word. A similarity does arise when looking at DN. Both Russian and WA are capable of creating double negation interpretations using two verbal negative markers as seen in (189).⁴⁵

(189) on *ne* budet *nichego ne* est' he not will.3sg nothing not eat.inf DN: 'He won't eat nothing.'

An important difference between Russian and WA is that in Russian a verbal negative marker is required to appear on the finite verb "will" with the presence of an n-word, with or without a negative marker on other verbal elements as seen in (190).

(190) on *(*ne*) budet *nichego* (**ne*) est' he not will.3sg nothing not eat.inf NC: 'He won't eat anything.'

⁴⁵Alya Asarina and Liudmila Nikolaeva p.c. Also see Grenoble (1992) for further discussion.

Therefore summarizing we get the paradigm below:

Russian:

NC: n-word NEG-will-T eat-INF NC: *n-word will-T NEG-eat-INF DN: n-word NEG-will-T NEG-eat-INF

Western Armenian:

NC: n-word NEG-will eat-T

NC: n-word will NEG-eat-T

DN: n-word NEG-will NEG-eat-T

The first difference between Russian and WA is the placement of T, which contains the tense, number and person. In Russian this head attaches to "will", whereas in WA it attaches to the next verb down, in this case "eat."

The second difference between the two languages is seen with the restriction of where the sentential negation marker can go. In Russian the [uNEG] bearing verbal negation must prefix onto 'will', the finite verb. In WA the negative operator can prefix onto either and still result in a NC interpretation. Therefore in both languages the computation of negation 's in a domain at least as big as a TP.

Another example of double negation is when a verbal negative marker is placed on "must" as seen in (192). The verbal negative marker that is required by the n-word appears before "must" as seen in (191).

- (191) on *ne* dolzhen budet *nichego* est' he not must.m.sg will.3sg nothing eat.inf NC: 'He won't have to eat anything.'
- (192) on *ne* dolzhen budet *nichego ne* est' he not must.m.sg will.3sg nothing not eat.inf DN: 'He won't have to not eat anything.'

A final note on this construction is that a second verbal negative marker cannot be placed after "must" and before "will" as seen in (193). I will not discuss further why Russian has such a restriction. In terms of having negative markers on verbal elements, there is less stringency in Western Armenian.

(193) *on *ne* dolzhen *ne* budet *nichego* est' he not must.m.sg not will.3sg nothing eat.inf Turning now to the more complex structure that was discussed above found in WA with "will can verb-INF", we see somewhat of a parallel between the two languages.

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Western Armenian:

NC: n-word NEG-will can-T eat-INF NC: n-word will NEG-can-T eat-INF DN: n-word will can-T NEG-eat-INF

In these cases we see that in WA a double negation meaning arises when the sentential negation is prefixed onto the non-finite verb "eat". This is parallel to the Russian examples found in (194). In Russian a second negative head can be placed on the non-finite "eat" verb, however it is claimed that this is because of constituent negation, which explains why a single negative operator cannot go on "eat" and must go on the tensed "will" as seen in (194).

(194) on *ne* budet *nichego ne* est' he not will.3sg nothing not eat.inf DN: 'He won't eat nothing.'

(195) *on budet *nichego ne* est'

The claim of the WA verbal negative marker carrying an [iNEG] feature was based on two verbal negative markers in the same clause resulting in a DN meaning. However we are not able to test this in Russian since two verbal negative markers can not occur in the same clause.

3.4.5.3 Western Armenian vs. Spanish

For completeness I show in (196) that in non-strict languages like Spanish, DN readings are possible with two verbal markers like in WA and Russian.

(196) El entusiasta hace lo que hace porque *no* puede *no* hacerlo 'The enthusiast does what he does because he can't not do it.'

This is expected in Spanish, since the verbal negative markers carry [iNEG] features.

3.5 Loose ends

3.5.1 Coordination

An issue arises with coordinated structures where one of the conjuncts contains an n-word as seen in (197).

(197) Baron Varante jev votf-meg afagerd jegesetsi katsin mister Varant and no-one student church went.3P 'Mr. Varant did not go to church and no student went to church.'

From (197), one negation is contributed to the semantics.⁴⁶ The issue is, where is this negation interpreted. The intended meaning of (197), is that both conjuncts need to not be going to church. If the negation is just realized in the second conjunct then Baron Varant will be interpreted as having gone to church, which is not the meaning of the sentence. If the negation is interpreted over the entire sentence, like a negative marker on a verbal element then we get the following meaning:

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 \neg (Baron Varant and any student) went to church.

 $= \neg$ Baron Varant $or \neg$ any student went to church.

This statement will be true if either Baron Varant or any student don't go to church. However the desired meaning is one where the negation applies to both conjuncts, namely: $\neg B$. Varant went to church and \neg any student went to church.

The construction in (197) presents the question of why is the first non-negative conjunct interpreted with a negative predicate.

3.5.2 Other coordinated structures with negation

Another place where negation is present is in constructions like 'not x, but y' in English which is expressed with the lexical item for votf 'no' followed by the complementizer te as seen in (198):

⁴⁶For some speakers (197) was not interpretable. Here I only discuss the judgements of the speakers who were able to interpret it.

(198) Aramə vot∫-te hav ajl həntga-hav gerav
 Aram no-that chicken other indian-chicken eat.PERFV.3S
 'Aram ate not chicken, but turkey.'

However if the verb is negated, for most speakers the sentence is uninterpretable as was the case for some speakers with the DN *without* sentences. If forced to assign a meaning, responses are split between keeping the same meaning as the positive sentence, and adding a negation to the semantics.

(199) Aramə vot∫-te hav ajl həntga-hav t∫i-gerav
 Aram no-that chicken other indian-chicken NEG-eat.PAST.3S
 'Aram ate not chicken, but turkey' or 'Aram ate not turkey, but chicken.'

At this moment it is unclear why certain speakers add a negation where others do not. Also an explanation should be given as to why a sentential negation causes a crash for some speakers and a DN interpretation does not result. This structure can potentially reveal more information about why negation gives the meanings shown throughout this paper.

3.5.3 Eastern Armenian and Classical Armenian

Scratching the surface of Eastern Armenian spoken in Armenia, it seems like sentential negation is obligatory with n-words. This pattern is seen in Russian. According to Klein (1997) the n-word for 'nothing' *votf-intf* in Classical Armenian is an NPI. The *intf* (which in Modern Eastern/Western Armenian is 'what?') in Classical Armenian is the nominative and accusative forms of an inanimate reference that act as NPIs, occurring only in contexts that license NPIs. It would be interesting to see if the n-words found in Eastern Armenian are still NPIs, or act like n-words as those found in Russian.

3.6 Conclusion

Here is a summary of the features that are assigned to n-words and verbal negation and when a negative operator is used in the different types of languages discussed in this chapter.

	n-word	verbal negation	Op¬ licensing
strict NC (Russian)	[uNEG]	[uNEG]	Subj and Obj
optl. neg NC (W. Flemish)	[uNEG]	[uNEG]	Subj and Obj
non-strict NC (Italian)	[uNEG]	[iNEG]	Subj
DN (Std. Dutch)	[iNEG]	[iNEG]	Neither
Western Armenian	[uNEG]	[iNEG]	Subj and Obj

This chapter presented the interaction of different negative elements in WA. Western Armenian NC expanded the typology of possible NC languages. I showed how the phenomena of negative concord found in WA can be explained using the syntactic Agree approach following Zeijlstra (2004, 2008). I challenged the idea that strict vs. non-strict is related to the verbal negation marker's NEG feature. The verbal negative marker in WA must carry interpretable negation, unlike other strict NC languages.

The presence of the verb gərna- 'can' and other verbs that take infinitival complements are cases where both verbal negation and n-word each add a negation to the semantics. Scrambling the n-word around these verbs changed the interpretation of the sentence. I also established that the n-words found in Western Armenian are not negative polarity items like *vojeve*- 'any' and I demonstrated how they are negative concord items.

3.6.1 Summary of Negative Concord and Double Negation languages

	subj+verb NC	obj+verb NC	Optl. verb+n-word	NegAdv	DN
Italian		\checkmark			
non-strict NC					ļ
Russian	\checkmark	\checkmark			
strict NC					
W. Flemish	\checkmark	\checkmark	\checkmark	\checkmark	$$
optl. neg NC					
Std. Dutch			\checkmark	\bigvee	\bigvee
DN					
W. Armenian	\checkmark	\checkmark	\checkmark		

3.6.2 Some verbs with infinitival complements

can	gərnam	gərtsa udel
want	g-uzem	uzetsi udel
begin	g-əsgəsim gor	əsgəsa udel
be used to	gə-varzəvim gor	udel varzəvetsa
continue	gə-∫arnagem gor	udel ∫arnagetsi
know how	kidem	udel kidtsa
forget	gə-mortnam gor	udel mortsa
try	gə-portsem gor	portsetsi udel
succeed	gə-hat∫oʁim gor	udel hat∫oʁetsa
dare	gə-hamartsagim gor	udel hamartsagetsa
promise	gə-χosdanam	udel xosdatsa
refuse	gə-merzem	udel merzetsi
decide	gə-voro∫em gor	voro∫etsi udel
plan	gə-planavorem gor	udel planavoretsi
prefer	gə-naxəndrem	udel naxəndretsi
wish	gə-tsanganam	udel tsangatsa
propose	g-arat∫argem	udel arat∫argetsi

3.6.3 NPIs in WA

There are two lexical items that correspond to the English NPI 'ever'. One borrowed from Turkish, *hetf* and another, *pənav*. WA prescriptive rules forbid the use of hetf,⁴⁷ deeming *pənav* as the 'cleaner' version and the traditionally correct form. However most speakers of Western Armenian use these two forms almost interchangeably:

(200) het∫/pənav *(t∫i)-gera
ever NEG-eat.PERFV.1S
'I didn't eat at all.'

These two NPIs require some form of licenser, not necessarily sentential negation. According to Ladusaw (1979), NPIs must occur in the scope of a downward-entailing expression or a polar question. Common environments being sentential negation or conditionals. As seen from (200) and the following two examples these three environments do license both *hetf* and *pənav*. NPIs do not have any negative interpretation in these licensing environments unlike the n-words seen in §3.1.2.

⁴⁷This has been ingrained in some speakers who express strong dissatisfaction and immediately stick to *pənav*.

- (201) het∫/pənav GERAR? ever eat.PERFV.2S? 'Did you ever eat?'
- (202) jete Aramə het∫/pənav desne-s, indzi lur dur
 if Aram ever see-2S, 1S.DAT news give.2S.IMP
 'If you ever see Aram, let me know.'

Both of these NPIs can be uttered as an answer to a question, resulting in a "never" interpretation:

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(203) mis G-UDES? het∫/pənav! meat IMPFV-eat.2S? ever 'Do you eat meat? Never!'

This meaning of 'never' might be a result of an elided VP [don't eat meat].

A slight difference in meaning arises between the two words for "ever" when forming more complex NPIs with *meg* 'one,' *pan* 'thing' and *dew* 'place.' Both *hetf* and *pənav* can appear before these three words, however the constituency is different, *pənav* seems to get stranded in the subject as seen from the examples below:

- (204) [[[hetf deb] mE] tfi-katsi] ever place INDEF NEG-go.PERFV.1S 'I didn't go anywhere.' (focus on place)
- (205) [pənav [[deʁ mə] tʃi-katsi]] ever place INDEF NEG-go.PERFV.1S 'I never went anywhere.' (focus on the going)

From this I conclude that *hetf*, unlike *pənav*, is capable of forming more complex NPIs like "ever-one," "ever-thing" and "ever-where" which also require some form of licensing.

Now what happens when an NPI is already licensed and we introduce a negative element, like sentential negation? In these cases the negation adds to the semantic interpretation as see in the example, which is identical to example (202) except for an added verbal negation on the first verb:

(206) jete Aramə het∫/pənav tfi-desne-s, indzi lur dur if Aram ever NEG-see-2S, 1S.DAT news give.2S.IMP 'If you ever don't see Aram, let me know.'

3.6.3.1 Two other NPIs

Besides the two lexical items corresponding to "ever" there are two other NPIs: *vojeve*- that corresponds to "any" and *jerpek* corresponding to "never." *vojeve*- is a bound morpheme that can attach to *meg* 'one,' *pan* 'thing' and *dev* 'place' like *hetf* and like the other NPIs requires a licenser, either sentential negation, yes/no questions or conditional constructions as seen from the two examples below.

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- (207) *jereg, vojeve-der katsi yesterday, any-place go.PERFV.1S
- (208) vojeve-pan t∫-əri
 any-thing NEG-did.1S
 'I didn't do anything.'

Putting together *vojeve-* and *pənav*, *pənav* contributes a "never" meaning as seen in (209). Just to note, the negation on the verb is required in this example.

(209) pənav vojeve-pan t∫-e-m ger-adz ever any-thing NEG-AUX-1S eat-PERF 'I have never eaten anything.'

jerpek "never" is a free standing morpheme that also acts like an NPI and requires a similar licensor. Morphologically it contains the string *jerp* which means "when" (*-ek* has no transparent meaning to a Modern Western Armenian speaker, however according to Klein (1997), this was an NPI in Classical Armenian)

(210) jerpek dun KATSI-R? never home go-2S 'Did you ever go home?'

(211) JERP dun katsi-r? when home go-2S? 'When did you go home?'

As the previous NPIs *jerpek* can stand as the answer to a question and as demonstrated in (206) for the "ever" NPIs, an additional downward entailing environment will add to the meaning and not just be a vacuous licenser of the NPI, as shown in (212):

(212) jete jerpek dun t∫-erta-s, indzi lur dur if never home NEG-go-1S, 1S.DAT news give.2S.IMPRV "If you ever don't go home, let me know."

NPIs give positive readings in downward entailing environments since this is a licensing location. However a negative concord n-word appearing in the same context gives a negative meaning as seen by comparing (213) and (214).

- (213) votf-meg-der katsir? no-one-place went.2S 'You didn't go anywhere?'
- (214) vojeve-meg-des katsir? any-one-place went.2S 'Did you go anywhere?'

It is worth noting that there is an intonational difference between (213) and (214). In ^{it} Armenian a rising intonation placed at the end of a declarative sentence transforms it to a polar question. However this rise occurs at different points when comparing the two questions above. In (213), the rise occurs on the final syllable of the n-word, whereas for the NPI sentence in (214) the rise is placed on the verb after the NPI.⁴⁸

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A distinction can be observed clearly with the contrasting example in the following two sentences. In (215) the intonational rise occurs on the final syllable of the NPI giving the contrastive meaning of fruits versus any other type of edible set. In (216) where the rise is on the verb "eat", the question is focusing on the action of eating as opposed to selling for example.

(215) vojeve-meg-BəDUß gerar? any-one-fruit ate.2S 'Did you eat any fruit, [as opposed to any vegetables]?'
(216) vojeve-meg-bəduß GERAR? any-one-fruit ate.2S 'Did you eat any fruit, [as opposed to selling any fruits]?'

 $^{^{48}}$ For some speakers if the intonational rise of (213) is placed on the verb, the n-word is treated as if it were an NPI, as in the interpretation would be equivalent to that of (214). These facts are in need of further investigation.

Going back to Watanabe (2004). He presents five criteria and as I mentioned above the NC items obey all 5 and fall into the NC category. However the NPIs are not as well behaved as seen in the table below:

		(i)otherEnv	(ii)Qs	(iii)subj	(iv)almost	(v)Across (matrix neg)	Across (emb neg)
1) het∫	'ever'	pos	neg	n/a	no	no	no
2) het∫-meg-	'ever-one-'	e pos	neg	yes	yes	. can	no
3) pənav	'ever'	pos	neg	n/a	no?	no	no
4) jerpek	'never'	pos	neg	. n/a	no no	no	no
5) vojeve-	'any'	· pos	pos?	yes	yes	can	no
6) vot∫-	'no'	neg	neg	yes	yes	can't	can't

A few generalizations can be made from the table above:

- All NPIs can be elliptical answers to questions, a difference arises with (1)-(4) vs. (5)
- Adverbs can't be subjects and so criterion (iii) is the same for both NCIs and NPIs
- The adverb NPIs can't be modified by *almost* and so they follow the NPI pattern
- \bullet Therefore the (i) and (v) seem to be the only ones that actually hold for both NPIs and NCIs

At this point, more needs to be investigated about these NPIs. It would be interesting to find out how the NPIs and NCIs interact. This can't be done until each lexical item is understood (what are the exact semantics of these items), as I think *votf*- and sentential negation has been.
Chapter 4

More Western Armenian Concord

4.1 Introduction

In this chapter I present optionality within several constructions of Western Armenian. There are a number of cases where two or more morphemes seem to contribute the same semantic meaning. These morphemes can appear by themselves, for example *vor* and *-ne⁴* seen in (1), or together as in (2), and end up yielding the same meaning.¹ As I discussed in chapter 1 I refer to the phenomenon, where two or more morphemes containing the same feature yield one semantic unit, as *concord*.

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 (1) int∫-vor kənetsi, kezi bid-dam what-C buy.PST.1S, 2S.DAT FUT-give.1S
 'Whatever I bought, I will give to you.'

> int kənetsi-ne, kezi bid-dam what buy.PST.1S-NE, 2S.DAT FUT-give.1S 'Whatever I bought, I will give to you.'

 (2) int∫-vor kənetsi-ne, kezi bid-dam what-C buy.PST.1S-NE, 2S.DAT FUT-give.1S
 'Whatever I bought, I will give to you.'

There are two groups of phenomena to distinguish here in terms of *optionality*. One is that of an optional morpheme: for example, a group {John, Bill, Mary} could be described as 'John and Bill and Mary' or as 'John, Bill, and Mary' - the first conjunction 'and' is

¹-ne, vor, -al have multiple uses/meanings. I choose not to gloss -ne and -al, and gloss vor as C, to not favor one use over another.

optional. The presence or absence of the first 'and' is independent from the semantics of other morphemes in the sentence. The distinction between these two phrases is relegated to information structure and stylistic differences.

The second group, which I focus on in this chapter, is that of optional concord, more specifically concord of an identical feature that appears on multiple morphemes. An example of this is seen with the NEG feature on verbal negation occurring in the same clause as a negative feature on a DP, yielding one negation seen in (3). This concord becomes relevant when one of the morphemes carrying the negative feature is optional. This optional concord is seen with other features as well, such as number, time, universal features as will be analyzed in this chapter.

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(3)Aramə (vot f)-megə tfi-desav Aram (no)-one NEG-see.PST.3S 'Aram didn't see anyone.'

Given the pattern in (1) and (2) we are confronted with a puzzle. More than one morpheme is available to express the same meaning. Moreover, both of these morphemes can co-occur as in (2), and maintain the same meaning as in the examples in (1). Compositionality is the central issue for these concord constructions. When two or more morphemes in the same clause bear the same feature, which is interpreted? I extend the analysis of Western Armenian negative concord which I present in §3.4 to the other concord structures in the language. I posit a covert operator which scopes over and licenses these markers via Multiple Agree (Ura 1996; Hiraiwa 2001, 2005); here I follow Zeijlstra (2004), who introduced such an operator to account for negative concord cross-linguistically.

In §4.2 I present the different types of concord phenomena found in Western Armenian. I then review the analysis of negative concord via syntactic Agree in §4.3 and move on to accounting for the other concord phenomena in §4.4. I go on to discuss alternative approaches to the data in $\S4.5$.

4.2Concord constructions

In the previous chapter I presented a detailed account of negative concord in Western Armenian. Negative concord is only one of a number of concord phenomena found in the language. The enclitic -ne is used both in conditionals/temporals and in free relatives as in

(4) and (5) respectively.

- (4) [Aramə merni-ne], hos bid-tasvi Aram die.3S-NE, here FUT-bury.PASS.3S 'When Aram dies, he will be buried here.'
- (5) [Maralə int] jepe-ne], g-udem
 Maral what cook.3S-NE, IMPFV-eat.1S
 'I (will) eat whatever Maral cooks.'

Conditionals and temporals either contain jete 'if', jerp 'when', vor, or -ne as in (6)-(9).

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- (6) [jete dun bid ertas], hed-ət gu-kam
 if home FUT go.2S, with-2S.POSS IMPFV-come.1S
 'If you are going to go home, I'll come with you.' (Conditional)
- (7) kal fapat [jerp Aramə ka], mijasin xanut g-ertank
 next week when Aram come.3S, together market IMPFV-go.1P
 'When Aram comes next week, we'll go to the market.' (Temporal)
- (8) [kaʁak vor itʃnes], kani-mə had χəntsor kəne city C go.down.2S, few-INDEF CLASS apple buy.2S.IMP
 'When you go to the city, buy a few apples.' (Temporal)
- (9) [dʒaʃ epes-ne], indzi gantʃe food cook.2S-NE, 1S.DAT call.2S.IMP 'If/when you cook, call me.' (Conditional/Temporal).

Free relatives are formed with a *wh* phrase appearing with one of three particles, $\{vor, -ne, -al\}$ as in (10)-(12).

- (10) [ov-vor desnes], indzi gə-dʒant∫na who-C see.2S, 1S.DAT IMPFV-recognize.3S
 'Whoever you see, knows me'
- (11) [ov-al desnes], indzi gə-dʒant∫na who-AL see.2S, 1S.DAT IMPFV-recognize.3S
 'Whoever you see, knows me'
- (12) [ov desnes-ne], indzi gə-dʒant∫na who see.2S-NE, 1S.DAT IMPFV-recognize.3S
 'Whoever you see, knows me'

As I will demonstrate below, two or three of these particles can co-occur in the same phrase, presenting us with a concord relation.

Besides concord with -ne, which I label as 'complementizer concord', there is another case of concord phenomena. This final case discussed in this chapter is additivity concord, where a morphologically free lexical item *najev* 'also', as in (13), can appear with -a(l), as in (14), which by itself also can mean 'also', as in (15).²

(13) **najev** Aramə jegav also Aram. come.PST.3S 'Aram also came.'

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(14) **najev** Aramn-**a** jegav also Aram-AL come.PST.3S 'Aram also came.'

(15) Aramn-a jegav Aram-AL come.PST.3S 'Aram also came.'

In the following subsections I am going to briefly go through these different groups of concord, before moving on to the analyses. There are two other similar looking phenomena, where three options are possible, with two morphemes involved. This is seen with the plural feature, found with numerals and plural marking, as in (16) and genitive marking as in (17). In (16) the *-er* 'PL' and in (17) the *-in* 'GEN' are optional, similar to the *-ne* and *-al* in the previous examples. I present the data related to these two examples in the following section but leave the analysis for future research.

- (16) [jerek kirk-er] kənetsi three book-PL buy.PST.1S 'I bought three books.'
- (17) [im-in kirk-əs] kezi dəvi 1S.GEN-GEN book-1S.POSS 2S.DAT give.PST.1S 'I gave my book to you.'

²All proper names of individuals are obligatorily specific marked in the present day Western Armenian language. The specificity marker's form in WA, seen in these examples after the proper name Aram as either ϑ or n is phonologically determined and has no semantic implications: see §2.2.2 for discussion.

4.2.1 Conditional/Temporal

There are two cases of complementizer concord I analyze in this chapter; both involve the clitic *-ne*. The first is the conditional/temporal construction with a head initial morphologically free morpheme *jete* 'if', *jerp* 'when' or *vor* co-occurring with the enclitic *-ne*. In (18) *jete* 'if' and *-ne* yield a conditional meaning.

(18) jete dun ertam-ne, bydem
if home go.1S-NE, will.eat.1S
'If I go home, I will eat.' (Conditional)

It is not necessary for both of these morphemes to appear. They can head the same phrase by themselves as seen with the two examples below.

(19) **jete** dun ertam... if home go.1S 'If I go home...'

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(20) dun ertam-**ne**... home go.1S-NE 'If/When I go home...'

As presented in chapter 2 the construction in (20) can mean both 'if' and 'when' depending on the context. Whereas (19) can only have a conditional reading, a restriction which is imposed by the head *jete* 'if'.

Temporal clauses are introduced by head-initial *jerp* 'when' or *vor*. When the head final *-ne* appears with jerp/vor only a temporal meaning arises as in (21).

(21) dun **jerp/vor** ertam-**ne**, bydem home when/VOR go.1S-NE, will.eat.1S 'When I go home, I will eat.' (Temporal)

As was the case with the conditional clauses, the head-initial free morphemes jerp 'when' or *vor* can head the temporal adjunct clause by themselves as in (22) and (23).

(22) dun jerp ertam, bydem home when go.1S, will.eat.1S 'When I go home, I will eat.' (23) dun **vor** ertam, bydem home C go.1S, will.eat.1S 'When I go home, I will eat.'

The head initial morphemes in (22) and (23) can appear with the head final clitic *-ne* as seen in (24) and (25).

- (24) dun **jerp** ertam-**ne**, bydem home when go.1S-NE, will.eat.1S 'When I go home, I will eat.'
- (25) dun vor ertam-ne, bydem home C go.1S-NE, will.eat.1S 'When I go home, I will eat.'

The pattern in (18)-(25) is one of many cases of concord in Western Armenian, where potentially two morphemes appear in the same clause resulting in one meaning, in this case either conditional or temporal. This concord is optional, in that either morpheme can appear by itself and still yield the same meaning.

4.2.2 Free Relatives

The second group of concord constructions is seen with the 'free relatives' where *vor*, *-al*, and/or *-ne* appear together with a *wh*-phrase. The particles *vor* and *-al* attach to the *wh*-phrase, whereas *-ne* attaches to the verbal complex in the same clause as seen in (26). The basic template is *wh*-phrase+(*vor*)+(*al*)+TP+(*ne*), where at least one of the three particles is required to form the free relative. In (26) all three of the particles co-occur.

(26) ov-vor-al dun erta-ne, byde who-VOR-AL home go.3S-NE, will.eat.3S 'Whoever goes home will eat.'

Each of these three morphemes can occur by themselves with the *wh*-phrase to give the same desired free relative construction as seen by the three examples below.

(27) ov-vor dun erta... who-VOR home go.3S 'Whoever goes home...'

- (28) ov-**al** dun erta... who-AL home go.3S 'Whoever goes home...'
- (29) ov dun erta-**ne**... who home go.3S-NE 'Whoever goes home...'

The concord constructions of the free relatives are when two of these morphemes come together in the same phrase as in the three examples below. Therefore there are seven combinations of morphemes that yield the same free relative meaning, (26)-(32).

- (30) ov-**vor-al** dun erta... who-VOR-AL home go.3S 'Whoever goes home...'
- (31) ov-**vor** dun erta-**ne**... who-AL home go.3S-NE 'Whoever goes home...'
- (32) ov-al dun erta-ne... who-AL home go.3S-NE 'Whoever goes home...'

4.2.3 Also

The next example of concord type phenomena in Western Armenian is seen with the morphemes najev 'also' and -al. These additive morphemes can co-occur as seen in (33).

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(33) Aramə **najev** kirk-n-**al** perav Aram also book-SPFC-AL bring-PST.3S 'Aram also brought the book.'

As with the other concord constructions there are two other ways to express the same meaning seen in (33). The first is with the head initial *najev* in (34) and the second is with the enclitic -al in (35).³

(34) Aramə **najev** kirk-ə perav Aram also book-SPFC bring-PST.3S 'Aram also brought the book.'

³The -n- in the presence of -al is a phonologically triggered alternation of the specificity marker independent of the semantics of -al.

(35) Aramə kirk-n-al perav Aram book-SPFC-AL bring-PST.3S 'Aram also brought the book.'

4.2.4 Plural

There are two cases of DP internal what look like concord phenomena in Western Armenian, one involving plural marking and one involving genitive marked DPs. The plural marker -(n)er can co-occur with numerals as seen in (36), parallel to the English example where the plural marker -s appears with numerals. However unlike English, the plural marker is optional as seen with (37). The prescriptive standard is to omit the plural marker in the presence of a numeral (Andonian 1966, Sakayan 2000). Finally the plural marker may occur by itself, without the presence of a numeral as in (38).⁴

- (36) **jerek** kirk-er three book-PL 'three books'
- (37) **jerek** kirk three book 'three books'
- (38) kirk-er book-PL 'books'

The plural marking becomes obligatory with the presence of the specificity marker $-\partial/n$ seen with (40), which suffixes on top of the plural marker as seen in (39). This obligatoriness can be accounted for by assuming that a plural marker is always present in the presence of a numeral. This plural marker can be overt or covert, but is always present. Its presence is revealed with the addition of the specificity marker which attaches to the plural marker.

- (39) (jerek) kirk-er-ə (three) book-PL-SPFC 'the (three) books'
- (40) ***jerek** kirk-ə three book-SPFC

 $^{{}^{4}}$ If the plural marker is also left out, and only a bare nominal is left, then a mass reading of the NP is realized, discussed in §2.2.1.

4.2.5 Genitive

Double genitive marking is found in certain environments in WA. I do not analyze these structures as concord and leave them for future investigation. In Western Armenian a genitive case marker can appear on an already genitive pronoun as seen in (43). The typical genitive/possessive construction is seen in (41) and (42). The possessee is obligatorily marked by a possessive suffix $\{-(\partial)s, -(\partial)t, -\partial/n\}$ which correspond to $\{1S, 2S, 3S/1P/2P/3P\}$.^{5,6} The possessor always bears a genitive feature, either as a genitive pronoun as in (41), *im* 'my' or as a genitive suffix as in (42), *-i* 'GEN'.

- (41) im kirk-əs 1S.gen book-1S.poss 'my book'
- (42) Aram-in kirk-ə Aram-GEN book-3S.POSS 'Aram's book'
- (43) **im-in** kirk-əs 1S.GEN-GEN book-1S.POSS 'my book'

The double genitive marking seen in (43) combines the two possible methods of genitives. The genitive marking pattern is not optional in the same way that the previously discussed concord phenomena are optional. The genitive suffix obligatorily attaches to a genitive pronoun and cannot attach to, say a nominative pronoun as seen in (44). In general the possessor must always bear a genitive feature, however the other case feature of the pronoun in (44) for some reason 'overrides' the genitive feature of the genitive suffix.

(44) *jes-in kirk-əs 1S.NOM-GEN book-1S.POSS

Nominals in Western Armenian can be omitted if salient in the discourse, as seen in (45) and (46). When the nominal is dropped the possessive suffix cliticizes onto the next leftmost available host, in this case the only other word, the genitive pronoun. If an adjective or

⁵The 3S/1P/2P/3P possessive suffix is homophonous with the specificity marker, ∂/n .

⁶Interesting fact: In Eastern Armenian the genitive suffix is not required with the genitive pronoun (Dum-Tragut 2009:112)

PP is present, the possessive suffix cliticizes onto them when the nominal is dropped as in (47). As in the example above where two morphologically genitive morphemes co-occur, the same is seen in (46).⁷

- (45) im-əs 1S.gen-1S.poss 'mine'
- (46) im-in-əs 1S.GEN-GEN-1S.POSS 'mine'
- (47) garmir-əs red-1S.POSS 'my red one'

Putting the genitive pronoun with (47), we get the structure in (48), where the possessive marker is on the adjective red *garmir* and not on the genitive pronoun like in (46).

(48) im-in garmir-əs 1S.GEN-GEN red-1S.POSS 'my red one'

A final note about the genitive markings is a parallel restriction to the plural/numeral construction. For the plural/numeral phrases the plural suffix was obligatory with a specificity marker. For the case of the genitive phrases, when omitting a plural nominal possessee there is an obligatory double marking of the genitive as seen in (49). The plural marker attaches to the genitive suffix which is then followed by the possessive marker.

(49) im-*(in)-ner-əs 1S.GEN-GEN-PL-1S.POSS 'mine (pl)'

The obligatoriness of the genitive marker in (49) is parallel to the obligatoriness of the plural marker in the presence of a specificity marker seen in the previous subsection.

⁷For more discussion of the morphophonology of these constructions see Sigler (1997) and Arregi et al. (2013).

4.2.6 Negation

The final example of concord, which I analyzed in the previous chapter, is that of negative concord. The negative morphemes, specifically *votf* 'no' and *tf*- 'Verbal NEG', when in the same clause yield one semantic negation as in (50).

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(50)	Aramə votj-meg-pan tji-gerav
•	Aram no-one-thing NEG-ate.3S
	'Aram didn't eat anything.'
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As was the case for all the other concord phenomena sketched out above, there is optionality for negative concord as well. Either of the negative morphemes may occur by themselves in a clause to yield the same meaning as in (50), when both negative morphemes are present. In the first example, (51) the verbal negative marker is present with an indefinite object. In the second case, (52), the object contains a negative morpheme, which scopes over the entire sentence and the same meaning of (51) and (50) is obtained.

- (51) Aramə pan-mə t**f**i-gerav Aram thing-INDEF NEG-ate.3S 'Aram didn't eat anything.'
- (52) Aramə vot∫-meg-pan gerav Aram no-one-thing ate.3S 'Aram didn't eat anything.'

In the following section I will take all the concord constructions that I sketched out in this section and provide a unified compositional analysis.

4.3 Concord via Syntactic Agreement

The cases of concord seen in the previous section follow a similar pattern. For the cases where there are two morphemes involved, say x and y, which bear the same feature, there are three possible combinations that arise in the language. We find x by itself, we find y by itself, and at times we find x co-occurring with y. In the previous chapter I demonstrated how the case of negative concord in Western Armenian can be accounted for using the mechanism of syntactic Agree. In this chapter I further the claim that Agree is responsible for negative concord, by showing how all the other cases of concord in WA can be compositionally accounted for using the same mechanism.

4.3.1 Negative Concord

I will briefly go through the analysis I presented in the previous chapter that accounts for the negative concord phenomenon found in Western Armenian using syntactic Agree. Negative concord is found in many languages, where two or more morphologically negative morphemes yield one semantic negation. Taking a Czech example seen in (53), *nikomu* 'nobody' and *ne* 'NEG' together result in only one negative meaning.

(53) Milan nikomu nevolá
 Milan n-body NEG-call
 'Milan doesn't call anybody.'

[Czech] (from Zeijlstra, 2008:14)

Zeijlstra (2004, 2008) accounts for negative concord cross linguistically using the mechanism of Agree, where negative morphemes have a negative feature which is either uninterpretable [uNEG] or interpretable [iNEG].⁸ In languages which exhibit negative concord, all n-words carry [uNEG] features. Therefore in the example in (53), *nikomu* bears a [uNEG] feature as seen in (54). Czech belongs to a subgroup of negative concord languages, namely strict negative concord languages where the verbal negative markers also bear a [uNEG] feature. In the example in (53), *ne*, therefore carries a [uNEG] feature as seen in (54). An [iNEG] features checks off one or multiple [uNEG] features. If there are no [iNEG] features in the derivation, then as a *Last Resort*, a covert negative operator Op¬ bearing an [iNEG] feature is inserted in Spec, NegP as seen in (54). In the case of the Czech example in (53), there are two [uNEG] features and no [iNEG] features, therefore a covert negative operator will be inserted and will be the locus of interpretable negation, resulting in one negative meaning, i.e. negative concord.

(54) $[NegP \ Op \neg_{[iNEG]}[vP \ nikomu_{[uNEG]} \ [vP \ Milan \ t_{obj} \ nevola_{[uNEG]}]]]$

4.3.2 Negative Concord in Western Armenian

In Western Armenian, as I demonstrated in the previous chapter, the two negative morphemes votf 'no' and tf- 'Verbal NEG' can appear in the same phrase yielding one negative meaning. In particular, although WA is a strict NC language, I argued that WA verbal

⁸As discussed in the previous chapter different approaches have been taken to account for the behavior of the known negative concord languages: Ladusaw 1992, Giannakidou 2000, Herburger 2001, de Swart and Sag 2002, Watanabe 2004 to name a few.

negation bears [iNEG]; this represents a departure from Zeijlstra's (2004) system, in which verbal negation in strict NC languages bears [uNEG].

In Western Armenian as long as one negative morpheme is present a negative meaning arises as seen in (55) and (56). The uniqueness of the Western Armenian data is this optionality, where an n-word, which would be in a concord relation with a verbal negative marker, does not require a verbal negative marker. This is in contrast to most of the other negative concord languages.

- (55) votJ-megə votJ-meg-pan (tJi)-gerav
 no-one no-one-thing (NEG)-ate.3S
 'No one ate anything.' (Negative Concord)
 *'No one (did not) eat nothing.' (Double Negation)
- (56) **votf**-megə kirk (**tfi**)-gartats no-one book (NEG)-read.3S 'No one read any book.'

As was the case for Czech, a covert negative operator carrying the interpretable negative feature is inserted. This [iNEG] feature ends up checking off the [uNEG] features of the overt negative morphemes as seen in (57), which is the example in (56).

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4.4 Complementizer Concord

In the following section I extend the negative concord approach of feature Agreement to Western Armenian complementizers. As I demonstrated in previous sections, multiple complementizers can surface in the same CP and yield the same meaning as those CPs with single complementizers in WA. CPs with two or more complementizers bearing the same feature are instances of concord. I use an already present mechanism in the grammar, feature Agreement, along with a covert operator, $Op_{[iF]}$, which I presented for instances of negative concord in the previous section. This complementizer concord analysis using an agreeing covert operator is novel. What follows in this section are the analyses of the cases of concord found in Western Armenian using this mechanism.

4.4.1 Conditional/Temporal

The first non-negative-concord concord case I discuss are those found in certain conditional clauses. Repeated in (58), two morphemes, *jete* and *-ne* appear together in the same clause in what I claim is a concord configuration similar to that of the negative morphemes in the cases of negative concord.

(58) **jete** dun ertam-**ne**, bydem if home go.1S-NE, will.eat.1S 'If I go home, I will eat.' (Conditional)

The overt conditional morphemes, like English if, mark the presence of an operator according to certain analyses of conditional constructions (Lewis 1975; Kratzer 1986). This operator is a high covert operator that dominates the entire matrix and adjunct clause of the conditional. Kratzer (1986) shows that the quantificational force of a conditional statement does not lie within the adjunct, where the *if* morpheme is, but comes from the matrix, either overtly with quantifiers like *must* or *always*, or covertly by the high covert operator. For example, (59) is an instance of an overt quantifier *always* in the consequent that quantifies over the entire conditional sentence, whereas in (60) such a quantifier is absent but the same quantificational force as (59) is interpreted at LF.

(59) If Maral goes to Berkeley, she **always** stops by the Cheese Board.

(60) If Maral goes to Berkeley, she stops by the Cheese Board.

Conditionals therefore seem to be a natural extension of the covert operator analysis that I used for negative concord. The conditional sentences in Western Armenian discussed in this chapter contain either *jete*, *-ne*, or both. I claim that these are markers that indicate the presence of a high covert operator, $Op[i\forall]$. Therefore they are not the conditional operators themselves. Since multiple uninterpretable feature bearing morphemes can be checked off by a single interpretable feature bearing operator (Multiple Agree (Hiraiwa 2001)), the case of conditionals in Western Armenian seems like a natural extension and combination of the theory of Zeijlstra (2004), Hiraiwa (2001), and Kratzer (1986).

The structure of the example in (58) is that of an adjunct CP to the main clause, where both the CP and main TP are c-commanded by a covert operator as seen in (61). The overt conditional markers have no interpretable semantics with respect to the universal feature. The covert operator in conditionals scopes over the conditional heads.⁹ The conditional heads *jete* 'if' and *-ne* of course have other features which are not relevant for our current analysis.¹⁰

(61)



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The example in (61) contains both of the conditional morphemes *jete* and *-ne*. It is unclear which is the head of the CP that adjoins onto the TP *I* will eat. Both of the markers seem to select for TPs and it seems that it is not possible to decide whether *jete* is in a c-commanding relation with *-ne* or the other way around. However the Final-over-

⁹The covert operator, bearing the [iF], must be able to license the morphemes within the CP bearing the [uF]s, therefore, given the locality conditions on Agree only the lower C is a phase head.

¹⁰Each of the C heads have different distributions. I leave the exact nature of C1 and C2 to future work.

Final Constraint (FOFC) predicts one structure as grammatical and the other as disallowed (Biberauer et al. 2007). FOFC states that a head initial phrase can not be immediately dominated by a head final phrase. The desired configuration of c-commanding morphemes is that shown in (61). If the clitic *-ne* were to dominate the phrase headed by *jete* then a head final phrase, the one headed by *-ne*, would be strictly dominating a head initial phrase, the phrase headed by *jete*, violating the FOFC. Therefore I will assume the structure in (61), where *jete* selects for *-ne* and *-ne* selects for the TP. If *-ne* is null then it makes it look like *jete* selects for TP.

As I stated earlier *either* of these morphemes can occur alone in a conditional structure giving us the trees seen below in (62). It is important to point out that the covert operator can not be inserted without some syntactic indicator, in this case a C head.¹¹ Similar to negative concord, the covert operator here is a *last resort* operator and is not inserted when there are no conditional markers.



¹¹Other languages employ other methods of indicators for conditionals such as *conditional inversion* for English or *subjunctive* morphology for Russian.

In both of the structures above there is an overt morphological indicator of a conditional structure. This overt morpheme marks the presence of a high covert operator. A syntactically parallel clause to these conditional clauses is that of the temporal adjuncts seen in (64). As discussed previously there are three morphemes *jerp*, *vor*, and *-ne* that can independently be used to express an event or event type. *jerp* and *vor* are head initial, similar to *jete*.¹²

(64) jes **jerp/vor** dun ertam-**ne**, bydem 1S.NOM when/VOR home go.1S-NE, will.eat.1S 'When I go home, I will eat.' (Temporal)

1 Same

As mentioned in §2.7.2 the complementizer *vor* can only appear in the sentence initial position when it bears a [+wh] feature and ends up being realized in a spec-CP position at the start of a sentence as in (65). Otherwise an argument, like a subject in (64), needs to precede *vor. jerp* does not have this edge restriction as seen with comparing the two morphemes in (66).

- (65) [vor kirk-ə] Aramə gə-gardze vor Hagopə kənets?
 C book-SPFC Aram IMPFV-think.3S C Hagop bought.3S
 'Which book does Aram think that Hagop bought?'
- (66) **jerp/***[?]**vor** jereg (jes) dun katsi, kezi heratsajnetsi when/VOR yesterday (1S.NOM) home go.PST.1S, 2S.DAT call.PST.1S 'When I went home yesterday, I gave you a call.'

The edge restriction is one of arguments, since (67) is also degraded, where an adverb intervenes between the left edge and *vor*, however this is not sufficient. As seen by the example in (68) a PP argument is also allowed for such a structure. Therefore any argument, DP or PP, but not an adjunct, like adverbs, can appear between *vor* and the left edge. I do not explore this peculiar edge restriction any further here.

- (67) *[?]jereg vor jes dun katsi, kezi heratsajnetsi yesterday C 1S.NOM home go.PST.1S, 2S.DAT call.PST.1S
- (68) gamurtf-i-n dag-e-n vor antsnis, taft-mə bid-desnes bridge-GEN-SPFC under-ABL-3S.POSS C pass.2S, field-INDEF FUT-see.2S 'After you go under the bridge, you will see a field.'

¹² jerp 'when' is similar to jete 'if' in that they bear only one meaning. This is in contrast to vor and -ne.

4.4.2 The covert operators

In these concord structures, parallel to the negative concord structures I analyzed in the previous chapter, I posit phonologically null, interpretable feature bearing covert operators when an uninterpretable feature is left unchecked. The negative feature carries an existential operator while the operators associated with *-ne* are universal in nature. More specifically the conditional instantiation of the operator has a universal force over worlds, the temporals, over times, and the free relatives, over individuals.

operator	quantificational force	category quantified over
negative	existential	events
conditionals	universal	worlds
temporals	universal	times
free relatives	universal	individuals
	· .	

There is a difference between the universal force of individuals and worlds versus that of times. Information about the set of individuals or worlds is not marked on the verb or anywhere else in a simple TP.¹³ When introducing a marker which triggers the quantification over worlds, there is no other element within the same phrase that further restricts or expands the interpretation of such a quantificational force. However, all TPs are either past or non-past, marked by the tense suffix on the verb; the possible set of interpretations with respect to time are therefore already constrained. Within a temporal clause, the marker which triggers the presence of a universal quantifier over times is constrained by the tense marker.

Both temporal and conditional sentences have different phonological structures when comparing the head-initial versus the head-final clauses, namely with regards to effect on stress. The enclitic *-ne* shifts stress to its immediately preceding syllable. Whereas the head initial *jerp* 'when' or *jete* 'if' do not have any effect on sentential stress. This is parallel to the negative concord structures in WA, since the verbal negative marker is a stress attracting morpheme as well. However both negative concord and the complementizer concord structures do not exhibit truth conditional differences of the relevant features.

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¹³Except for subject person/number agreement that is marked on the verb.

4.4.3 Free relatives

The next set of morphemes which exhibit optionality and concord are *vor*, *-ne*, and *-al* found in free relative constructions. All of these morphemes have a variety of uses as I've demonstrated in the previous sections and chapters. I repeat example (26) as (69) below where we have a free relative.

(69) ov-**vor-al** dun erta-**ne**, byde who-VOR-AL home go.3S-NE, will.eat.1S 'Whoever goes home will eat.'

These free relatives require a wh-phrase along with one, two, or three of the bolded morphemes seen in (69). Any wh-phrase can be used, except for why, which is true crosslinguistically for free relatives. Each of these phrases has a slightly different structure than the other as I sketch in the table below.

à.:

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(70) Pos	SSIBLE wh-PHRASES
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wh+vor	GLOSS
ov vor	who C
vor-onk vor	C-PL C
vor-u-(n) vor	C-dat-(spfc) C
int∫ (NP) vor	what (NP) C
vor-(meg) (NP)-ə vor	C-(one) (NP)-SPFC C
int∫-bes vor	what-like C
jerp vor	when C
ur vor	where C
*int∫u vor	why C
*int∫-bisi vor	what-kind C
	wh+vorov vorvor-onk vorvor-u-(n) vorint∫ (NP) vorvor-(meg) (NP)-ə vorint∫-bes vorjerp vorur vor*int∫u vor*int∫-bisi vor

As seen from the table above different *wh*-phrases have slightly different structures. The third group *intfbes/jerp/ur* is the most straightforward of the three groups. These three *wh*-morphemes do not carry case or number agreement. They are phrases themselves which live in the specifier position of the CP headed by {*vor*, *al*, *ne*}. The free relatives have two possible structures. They can appear pre-posed with a pro-form referent in the main clause as seen in (71) to (73), which is a property of correlative constructions (Keenan 1985, Dayal 1996, Izvorski 1996, Bhatt 2003).¹⁴

¹⁴This pro-form referent is usually optional; however, including it gives the sentence less room for ambiguity.

- (71) jerp-vor Anin avarde, ajn-aden jed New York bid-poχatrəvi
 when-C Ani graduate.3S, that-time back New York FUT-move.PASS.3S
 'Whenever Ani graduates, she will then move back to New York.'
- (72) int∫bes-a hav-∂ jepetsir, anang-a mis-∂ jepe
 how-AL chicken-SPFC cook.PST.2S, that.way-AL meat-SPFC cook.IMP.2S
 'However you cooked the chicken, cook the beef that way.'
- (73) Varantə ur kirk garta-ne, Aramə hon surdʒ χəm-adz e
 Varant where book read.3S-NE, Aram there coffee drink-PERF AUX.3S
 "Wherever Varant reads a book, Aram has drank coffee there.'

These free relatives can also appear sentence finally without a pro-form in the main clause as in (74) and (75). There is a preference for the free relatives that are headed by *-al* or *-ne* to appear sentence initially as in (72) and (73).

- (74) mis-ə jepe int∫bes-vor hav-ə jepetsir meat-SPFC cook.IMP.2S how-C chicken-SPFC cook.PST 2S 'Cook the beef however you cooked the chicken.'
- (75) Aramə madid bid-da∫e ur-vor Hagopə kəluҳ-ə
 Aram pencil FUT-sharpen.3S where-C Hagop head-SPFC
 gə-kerer-gor
 IMPFV-scratch.PST.3S-PROG
 'Aram will sharpen pencils wherever Hagop was scratching his head.'

The second group, *whatever* and *whichever*, consist of *wh*-morphemes which select for nominal phrases. There is a specificity difference between the two *wh*-phrases, *whatever* takes a bare NP while *whichever* requires a specificity marked NP, therefore a DP as seen by comparing (76) with (77).

- (76) int∫ tsujn vor unejink haletsav
 what snow VOR had.1P melted.3S
 'Whatever snow we had, melted.'
- (77) vor sujn-ə vor unejink haletsav
 VOR column-SPFC VOR had.1P melted.3S
 'Whatever column we had, melted. [assuming a column that melts]'

The *wh*-bearing *vor* complementizer can optionally take *meg* 'one' adding another pair of phrases that demonstrate optionality in WA. As with the other optional morphemes, the addition of meg 'one' does not seem to add to the semantics.¹⁵ The *wh*-word *vor* already picks out a single set; the addition of 'one' does not decrease the size of the set.

(78) vor (meg) dəga-n vor bid Boston ertar, jereg hav epets VOR (one) boy-SPFC VOR FUT Boston go.PST.3S, yesterday chicken cook.PST.3S 'Whichever boy who was going to go to Boston, cooked chicken yesterday.'

Similar to the conditional/temporal structures discussed in the §4.4.1, the free relatives present a structure where two or (even three, for when -al is present) potential heads cooccur in a structure like that in (79) and (80). Once again the FOFC would disallow the head final clitic -ne from immediately dominating the phrase headed by the head initial *vor*, leaving us with the structure below.

<u>م</u>ين (

- 3m



The intf wh-word can host the plural marker without an overt NP as seen in the example in (81). This structure is the result of the NP being omitted or dropped, parallel to other structures in the language where the NP is able to be omitted, like genitive/possessive

 $^{^{15}}$ Further research is required to figure out the exact conditions of *meg* and nominal ellipsis.

constructions.

(81) intf-er vor kənetsi, jed veratartsutsi what-PL C buy.PERFV.1S, back resturn.PERFV.PERFV.1S 'Whatever (plural) I bought, I returned.'

Lastly, group (1) of free relatives which involve 'who' is the syntactically more intricate of the three groups. There are three morphologically different case forms of 'who' {ov, voru, vor-me} which are the {NOM, ACC/DAT/GEN, ABL} forms respectively.¹⁶ There is also a number distinction with these wh-phrases, namely singular, which is the set just presented and the plural set: {vor-onk, vor-onts, vor-onts-me} again for the same set of syntactic roles {NOM, ACC/DAT/GEN, ABL}. I have summarized this paradigm in (82). All of these wh-phrases take a bare vor as seen in the table. Case and number are expressed via the wh-word.

(82) PARADIGM OF ov 'WHO FREE RELATIVES'

	SG	PL
Nom	ov vor	vor-on-k vor
Acc/Gen/Dat	vor-un vor	vor-on-ts vor
Abl	vor-me vor	vor-on-ts-me vor

It is important to remember that *vor* is only one of the three possible morphemes, the other two being *al* and *ne*, that can appear in free relatives. The case and number of the *wh*-pronoun depends mostly on the internal structure of the free relative. I will show these so called *matching effects* that are found with the 'who' free relatives in the section below. There is a second set of pronouns which are used in WA to express 'who-ever', namely those of the form *an-vor*, where *an* is the 3S pronoun. I present the *an* paradigm of free relative heads in the table in (83). A complicating factor with the *an* free relatives is that the second part of the phrase which has its morphological base as *vor* can bear case and number as well. Therefore both *an* and *vor* can case marked and number marked.

¹⁶Throughout, I gloss vor-u as ACC for consistancy.

(83) PARADIGM OF an 'WHO FREE RELATIVES'

	SG1	SG2	PL1	PL2
Nom	an vor	*an vor-un	an-on-k vor	an-on-k vor-on-k
Acc/Gen/Dat	an-or vor	an-or vor-un	an-on-ts vor	an-on-ts vor-on-ts
Abl	an-or-me vor	??an-or-me vor-un	an-on-ts-me vor	??an-on-ts-me vor-on-ts-me

The difference between the two possible paradigms in (82) and (83) suggest that these two sets of phrases are structurally different. These possible forms along with evidence from matching effects will indicate that the [+wh] pronouns are in Spec-CP whereas the non-[+wh] pronouns found in (83) are DPs that take a CP relative clause adjunct.

4.4.3.1 Matching effect

There are morphologically two forms for the *wh*-word ov 'who', one that can be considered to be NOM, namely ov, and the second *vorun*, which is used for ACC, GEN, and DAT, which . I label ACC for simplicity. The previous section noted that the pronouns, either [+wh] ov'who' or [-wh] an '3S', in 'who' free relatives may take a number of forms expressing case and number, repeated in examples (84) and (85).

- (84) [Aramə ov-vor /vorun-vor desav], maretsav Aram who-C /who.ACC-C see.PERFV.3S, faint.PERFV.3S 'Whoever Aram saw, fainted.'
- (85) [ov-vor /*vorun-vor jegav], Hagopə desav who-C /who.ACC-C come.PERFV.3S, Hagop see.PERFV.3S 'Whoever came, Hagop saw.'

In (84) the free relative in bold inside the what I call *ever-clause* in brackets is in the direct object position. In WA direct objects can either be marked with the accusative suffix or be bare. This optionality is seen in the example in (84) where either the NOM form ov 'who' or the ACC form *vorun* can be used as a free relative. The ever-clause is in the subject position of the matrix clause. In WA subjects cannot bear an ACC case. If the free relative's case was assigned by the matrix clause, then we would expect *vorun-vor* to be an ungrammatical form in (84). Since this is not the case, (84) suggests that the case of the free relative is assigned from within the ever-clause. The optionality found in (84) is

in contrast to the example in (85), where the ever-clause is in the direct object position, while the free relative is in the subject position in the ever-clause. In this case only the NOM option is possible, once again showing that the case of the free relative is determined by its position form within the ever-clause. The table in (86) summarizes all the possible permutations of the free relatives. The first two columns represent the position with respect to the ever-clause and the matrix clause. Therefore (84) corresponds to the line 'Subj DO' where both forms are possible and (85) is the 'DO Subj' line.¹⁷

Matrix Ever ov vor vorun vor an vor anor vor anor vorun Nom Nom Acc Nom Nom Nom Acc Acc Acc Nom Subj Subj $\sqrt{}$ $\sqrt{}$ Subj DO \checkmark \checkmark $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ * * ? Subj IO ? DO Subj $\sqrt{}$ $\sqrt{}$ DO DO $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ DO Ю * Ю Subj $\sqrt{}$ $\sqrt{(\text{in situ})}$ * $\sqrt{}$ Ю $\sqrt{\text{(pre-posed)}}$ DO $\sqrt{(\text{pre-posed})}$ \checkmark V $\sqrt{}$ ΙΟ Ю

(86) TABLE OF CASES OF THE HEAD OF THE FREE RELATIVE CLAUSE

The two sets of free relatives differ in terms of case assignment in two crucial ways. First the vor of the [+wh] free relatives in ov vor/vorun vor never is marked for case. Only the higher, [+wh] pronoun, morphologically expresses case. While for the [-wh] free relatives the vor is able to take case, seen with anor vorun. The second difference between the two sets arises when comparing the first element, the pronoun of the free relative, ov vs. an, when the free relatives are in subject position in the ever-clause, and in the indirect object position with respect to the matrix. The crucial example is anor vor, where the [-wh] pronoun is in the ACC case, while the vor is NOM. If case assignment of the [-wh]pronoun was done within the ever-clause, then anor vor would need to be ungrammatical in the subject position, but from the table we see it is possible. Therefore I claim that this

¹⁷A few unclear judgements are indicated with '?'. Also for 'IO DO' the NOM NOM forms are only grammatical if the ever-clause is pre-posed, like the examples in (84) and (85). Final complication is the 'IO Subj' for ACC NOM forms of the [-wh] pronoun, which is only acceptable in the insitu position of the ever-clause. I do not discuss these complications any further. They require more data and consultants.

[-wh] pronoun is in a higher position, seen in (88), than the [+wh] pronoun in the structure of these free relatives, seen in (87). The case of the [+wh] pronoun ov is assigned by the ever-clause, while the case of the [-wh] pronoun an is assigned by the matrix clause.



The [-wh] pronoun heads a DP has as an adjunct a relative clause CP headed by a :_____ vor/vorun head, whose case is assigned by the ever-clause as seen in (88). This would explain why the second element of the [-wh] free relative is able to be acc, vorun.

(88)



As mentioned before the pronouns also mark number. Two interesting restrictions are present in the language. More specifically, there is a parallel between the case and number agreement optionality. The first restriction, seen in the table in (89), is the absence of a singular marked relative pronoun with a relative clause headed by a plural C. This gap is shown with the examples in (90) and (91)

,		RC-head Singular	RC-head Plural	
(89)	Rel-pro Singular	\checkmark	*	•
,	Rel-pro Plurai	\sim	\checkmark	
(90)	*kirk-ə vor-onk book-SPFC that-PL	desa saw.1S	n ja se se se	
(91)	*an vor-onk de 3S.NOM that-pl sa	sa w.1S		

The second restriction is that of case, namely a nominative relative pronoun with an accusative C head as shown in the table in (92), and its corresponding examples in (93) and (94).

		pro-head Nom	pro-head Acc
(92)	rel-pro Nom	\checkmark	*
	· rel-pro Acc	\checkmark	\checkmark
(93)	*an vorun 3S.NOM that.A	desa CC saw.1S	

(94) *an-onts vor-onk desa 3S-PL.ACC that-PL saw.1S

Thus, for both number and case, if the relative pronoun bears a marked inflection, then the pronominal head must also bear that inflection.

A final comment, about the structure of the free relative constructions with regards to the structural height of each of the C heads vor, -al, and -ne that can potentially head a free relative, is that the head initial vor free morpheme will c-command both the -al and -ne clitics. Once again the FOFC would disallow the head final clitic -ne from immediately dominating the phrase headed by the head initial vor, leaving us with the structures I've presented in this section. This is similar to the conditional/temporal structures where two potential heads co-occur.

4.4.3.2 Conclusion

In these few sections I have presented the paradigms and structures of the clauses formed with the clitic *-ne*. I move on to additive concord in the next section and then I return back to the discussion of *-ne* examining alternatives to the analysis of *-ne* presented in this section.

4.4.4 Additives

The third case of concord is that of the additive morphemes najev 'also' and -al, seen in (95). Both of these markers can also stand alone to express the same meaning as in (96).¹⁸

(95) Aramə najev dun-mən-al ∫inets
 Aram also house-INDEF-AL built.3S
 'Aram also built a house.'

(96) Aramə dun-mən-**al** ∫inets Aram house-INDEF-AL built.3S 'Aram also built a house.'

> Aramə **najev** dun-mə ∫inets Aram also house-INDEF built.3S 'Aram also built a house.'

najev acts like most adverbs in WA and can appear between most of the phrases in a sentence, as long as it is non-final as seen in (97) when taking the strings in (95) and (96).¹⁹

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(97) najev Aramə dun-mən-al finets
 Aramə dun-mən-al najev finets
 *Aramə dun-mən-al finets najev

Aramə ∫inets **najev** dun-mə *Aramə ∫inets dun-mə **najev**

A similar restriction holds for -al, which can attach to a number of arguments in a sentence. Whatever phrase it attaches to though, that phrase may not be linearly final as seen in (99) and (101). The pairs in (99) and (101) show that eventhough the arguments themselves can appear sentence finally, when attaching the clitic -al, similar to *najev* 'also', cannot be final, which seems to be a general property of WA for focused phrases.

- (98) Aramn-al dun-mə finets Aram-AL house-INDEF built.3S '[Also Aram] build a house.'
- (99) *dun-mə ∫inets Aramn-al dun-mə ∫inets Aramə

¹⁸A phonological reminder that the -al morphemes forces a -n- to be epenthesized between the indefinite or specificity marker and itself, as demonstrated in these examples.

¹⁹For discussion of adverbs in WA and their appearance in many places around a phrase see §2.9.

- (100) Aramə dun-mən-**al** finets Aram house-INDEF-AL built.3S 'Aram [also build a house].'
- (101) *Aramə finets dun-mən-**al** Aramə finets dun-mə

The main sentential focus in WA is pre-verbal as I discussed in previous sections. Crucially focused phrases strongly prefer to not be phrase-final, demonstrated for example with negation in §2.6 and wh-phrases in the previous section. Both najev 'also' and -al interact with the focus of the sentence. Therefore the restrictions pointed out in (100) and (101) follow other morphemes involved with focus.²⁰ The interpretation of najev is dependent on the sentential focus, instead of the additive adverb's (najev's) position as seen in (102)-(104), where the phrase in bold is the focused phrased.

- (102) Aramə najev dun-mə finets
 Aram also house-INDEF built.3S
 '[Also Aram] built a house. [in addition to other people building houses]'
- (103) Aramə najev dun-mə finets
 Aram also house-INDEF built.3S
 'Aram built [also a house]. [in addition to building other Nouns]'
- (104) Aramə najev finets dun-mə
 Aram also built.3S house-INDEF
 'Aram [also built] a house. [in addition to Verb-ing a house]'

The same triplet of examples is possible with najev 'also' in sentence initial position. Once again there is an edge restriction for the focused phrase. Eventhough the additive adverb najev 'also' is not sentence final in (105), the sentence is still degraded due to the focused phrase being final.

(105) ??Aramə najev ∫inets dun-mə Aram also built.3S house-INDEF 'Aram built [also a house].'

²⁰There is a construction where -al can surface sentence finally, namely in a conjunction of two -al's as seen in (i), where there is a high intonation on the first conjunct and a dropped prosody on the second. However I put this construction aside and leave it for future research.

(i) abuf-i deg tərav indzi-al, kezi-al stupid-GEN place put.PERFV.3S 1S.DAT-AL 2S.DAT-AL
'3S treated both me and you as if we were dumb.' Therefore there are two aspects of the additive to consider, the overt marker or markers that indicate the presence of an additive clause and the presence the clause that is focused. Depending on which phrase is *focused*, that is the phrase that will get the additive interpretation.

The structure of a sentence comprising of *najev* 'also' will therefore have an adverbial projection hosting *najev* 'also' which picks out the phrase that is focused. Taking the sentence in (106) with the subject being focused the tree in (107) results. The adverb *najev* 'also' carries an interpretable additive feature, [iADD], which looks for a focus feature bearing phrase to interpret the additivity.

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(106) *najev* Aramə dun-mə ∫inets also Aram house-INDEF built.3S '[Also Aram] built a house.'



Introducing the additive clitic -al into the structure of (106) and (107), we get (108) and (109). The -al clitic attached to a DP and bears a [uADD] which needs to be checked to give the additive interpretation. This structure is parallel to n-words and verbal negation co-occuring. The negation of the n-word bears a [uNEG] which gets checked by the verbal negation's [iNEG] as analyzed in Chapter 3. In the case of (109), the [uADD] introduced into the derivation by -al will be checked off by the [iADD] of the other additive morpheme najev 'also' as seen in (109).

(108) najev Aramn-al dun-mə finets also Aram-AL house-INDEF built.3S '[Also Aram] built a house.'



(109) is the additive concord structure. However as with all the other concord structures in WA there is optionality, and the additive is no exception. The additive suffix *-al* is able to appear by itself giving the same additive meaning as seen in (110). In this case a covert operator bearing an interpretable additive feature must be introduced into the structure since *-al*'s [uADD] will be left unchecked. This operator will be in the same projection as the adverbial *najev* 'also' would have been, if it were present as seen in (111).

(110) Aramn-al dun-mə finets Aram-AL house-INDEF built.3S '[Also Aram] built a house.'

(111)

It is important to makes sure only one additive meaning arises, when there is only one intended additive meaning. There are rare cases where two additive meanings are desired, and two phrases end up have additivity applied to them. This is seen with an example like in (112), with the subject being focused and given an additive meaning with the adverbial *najev* 'also' and the object, with *-al*. The presence of two focused phrases seen in (112) will guarantee that the two additive meanings are in different domains. The [iADD] of *najev* 'also' will not be in the same domain as the [uADD] of *-al*. The unchecked [uADD] feature of *-al* will force a covert operator bearing the interpretable additive meaning.

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(112) najev Aramə dun-mən-al finets also Aram house-INDEF-AL built.3S '[Also Aram] built [a house too].'

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A slight complication arises for -al within complex phrases like genitive/possessive or prepositional phrases where multiple hosts of $-al \operatorname{exist}^{21}$ The $-al \operatorname{clitic}$ can attach to the possessor within a DP as seen in (114) or to the whole DP as in (115). The DP that gets interpreted with additivity is the one that is focused, parallel to the sentential focus stress differences seen above. Therefore the position of the additive clitic -al in this case does not matter, similar to the position of the adverbial najev 'also'.²²

(114) Aram-in-**al** kirk-er-ə kəda Aram-GEN-AL book-PL-3S.POSS find.PST.1S 'I also found Aram's books."

• • •

(115) Aram-in kirk-er-n-**al** kəda Aram-GEN book-PL-3S.POSS-AL scratch.PST.1S 'I also found Aram's books."

The same is true for PPs where -al can attach either to the DP as in (116) or the PP as in (117). The additive interpretation is dependent on which phrase is focused, similar to the examples above.

- (116) [Aram-en-al aratf] bid-bares Aram-ABL-AL before FUT-dance.2S 'You will dance before Aram too.'
- (117) [Aram-en arat∫]-al bid-bares
 Aram-ABL before-AL FUT-dance.2S
 'You will dance before Aram too.'

Unlike the enclitic -al, the adverbial cannot appear within either a genitive/possessive or a PP construction, and must be placed before or after the entire phrase as seen in (118) and (119).

*Aram-in jes kirk-ə gartatsi

²¹A similar phenomenon is analyzed by Hartman (2011) for the additive marker -mu in Uyghur.

 $^{^{22}}$ Unlike languages like Russian, the genitive marked possessor must obligatorily immediately precede its possessee as seen in (i). Therefore scrambling of the possessor marked by the genitive suffix would be hard to motivate.

⁽i) jes Aram-in kirk-ə gartatsi 1S.NOM Aram-GEN book-3S.POSS read.PERFV.1S 'I read Aram's book.'

- (118) (najev) [Aram-in *(najev) kirk-er-ə] (najev) kəda (also) Aram-GEN *(also) book-PL-3S.POSS (also) find.PST.1S 'I also found Aram's books."
- (119) (najev) [Aram-en *(najev) aratJ] (najev) bid-bares (also) Aram-ABL *(also) before (also) FUT-dance.2S 'You will dance before Aram too.'

4.4.4.1 Korean

Western Armenian is not alone is having additivity concord. Korean is a language which has a very similar additive concord phenomenon, where an adverbial, t'o-han and an enclitic, -do can co-occur (120) or appear by themselves in a phrase as in (121) and (122).²³ Unlike the conditional/temporal constructions in Korean where the enclitic was required and the adverbial could not appear by itself, in the case of the additive, either or both can appear as seen in (120).²⁴

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12.

- (120) **t'ohan** Mina-**do** kake-e ka-at-ta also Mina-also store-DIR go-PAST-DECL 'Mina also went to the store.'
- (121) Mina-**t'ohan** kake-e ka-at-ta Mina-also store-DIR go-PAST-DECL 'Mina also went to the store.'
- (122) Mina-**do** kake-e ka-at-ta Mina-also store-DIR go-PAST-DECL 'Mina also went to the store.'

 $^{^{23}}$ For an in-depth discussion and analysis of the two Korean additive particles see Lee (2004).

²⁴Thank you to Young ah Do for the Korean data. DIR = 'directional', DECL = 'declaritive'.

4.5 Alternative Approaches to -ne

In this chapter I have demonstrated how different concord phenomena in Western Armenian can be compositionally interpreted given a covert operator. The complementizer concord phenomena which all involved the marker -ne can potentially be analyzed differently, as well as any of the other processes discusses above. In this section I will show how other possible approaches to explaining the structure of -ne fall short or do not add to the analysis.

4.5.1 -ne as Irrealis

As seen above, -ne can head conditional clauses and free relatives. However, in WA -ne can combine with verbal negation to yield a disjunct construction presenting the hearer with alternatives, as in (123), where the two alternatives have contrasting prosody indicating a forced choice question.

(123) [tej t∫e-ne surdʒ] g-uzes?
tea NEG.BE-NE coffee IMPFV-want.2S?
'Do you want tea or coffee? (forced choice)'

Cross-linguistically alternative questions like the one in (123) when containing a connective like English *or*, are either the disjunctive conjunction or contain an irrealis morpheme, as shown by Mauri (2008). Mauri (2008) follows Elliott (2000) in defining *irrealis* as "A proposition... [that] implies that a state of affairs belongs to the realm of the imagined or hypothetical, and as such it constitutes a potential or possible event but it is not an observable fact of reality". Since *-ne* is used in conditional constructions, as well as in these alternative constructions, a logical extension would be that *-ne* is an irrealis marker.

However, one of the possible structures where -ne is found is within temporal clauses, specifically a past completed event as in (124).

(124) jerp χanut kənats-ne, salor-mə kənets
when store went.3S-NE, plum-INDEF bought.3S
'When 3S went to the store, 3S bought a plum.'

If -ne were an irrealis morpheme, another marker would need to be present within the adjunct clause in (124) to reverse or cancel out the irreality that -ne would force. Since no

extra morpheme is present then I conclude that -ne is not marking irreality.²⁵

4.5.2 -ne as Correlative

Looking at the free relative constructions, another alternative is for *-ne* to be a correlative marker (Keenan (1985), Dayal (1996), Izvorski (1996), Bhatt (2003), Lipták (2009)). Correlative constructions usually consist of two components: a CP/DP adjunct which has some operator, for example a [wh] operator and a referential phrase in the matrix clause, either a demonstrative or a pronoun, that refers to the CP/DP adjunct. An example from Hindi is given in (125), where we see a CP adjunct to the left of the matrix clause, which contains that referential vo 'that' (Lipták 2009:1 example 1, from Srivastav 1991:example 3a). Such a construction is possible with free relatives in WA as in (126), where a free relative DP adjunct appears before the matrix clause which contains a referential pronoun *anor* '3S.DAT'.

(125) [jo laRkii khaRii hai] vo lambii hai
REL girl standing is that tall is
'The girl who is standing is tall.'

<u>ب</u>د.,

(126) [vorun Aramə desne-**ne**], Haroutə **anor** kirk bid-da who.DAT Aram see.3S-NE, Harout 3S.DAT book FUT-give.3S 'Whoever Aram sees, Harout will give a book to 3S.' Western Armenian

I put the possibility of -ne being a correlative marker aside, given that it can head disjuncts as in (127). It would be difficult to claim that the construction in (127) is a correlative one. First, the disjunct is an argument of the matrix verb and not an adjunct. Second, it is not possible to insert a pronoun referring to an individual within the disjunct.

²⁵Another support for *-ne* being different from other potentially irrealis morphemes is to look at other languages. Cross-linguistically there are many particles like *-ne* that head both conditional and temporal phrases: Japanese *-tara*, Turkish *-sA*, Korean *-myen*, German *wenn*. However, unlike *-ne* none of these other particles are able to be used in an example like (124), where we have a single past completed event, as seen with the ungrammaticality of the Korean example in (i) (Thanks to Youngah Do for the example). Instead of the 'if/when' morpheme a strictly 'when' morpheme is required for (124), which is t'e in Korean as seen in (i).

(127) gov-ə Garon tfe-ne Maron gətets? cow-SPFC Garo NEG.BE.3S-NE Maro milk.PERFV.3S? 'Did Garo or did Maro milk the cow?'

4.5.3 Split-CP

Another possible avenue of analysis is that the morphemes involved head different C projections following the Cartography approach (Rizzi 1997), where the CP domain is split into many C projections as in (128).

(128) [SubP ... [ForceP ... [TopP ... [FocP ... [FinP ... [TP ...]]]]]]

Each C level does something specific and is distinguishable from the other C phrases. For the case of free relatives where *vor*. *-al*, or *-ne* can be used to head the phrase, there is no justification to place any of these three morphemes into different categories of C. Even though I am not claiming that the C heads are heading the exact same clause, I claim that the locus of meaning is in one projection, not split between different CPs. Therefore the three morphemes heading the free relatives seem to be semantically equivalent, as are the other heads of the concord structures presented above.

4.5.4 One primary, the other(s) secondary

A final possible route of analysis that I consider is one where one of the two/three morphemes that are in these concord relations is the primary semantically contentful morpheme, either overtly or covertly, and the other morpheme(s) are secondary. This would translate to the primary morpheme bearing a [iF] while the other morpheme(s) bear a [uF]. Therefore one can say that *jete/jerp* 'if/when' bear [i \forall] whereas *-ne/vor* bear [u \forall]. The clauses that just have *ne* and *vor*, would then be similar to the negative concord clauses with only *votf* 'no' n-words and no verbal negative marker *tfi* 'NEG'. In these cases a null morpheme bears the [iF]. I leave this possibility open, since at the moment I do not have enough evidence discerning between this possibility and the one proposed in §4.4.1.
4.6 Conclusion

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 $\frac{1}{2} = \frac{1}{2} \left(\frac{1}{2} + \frac{1}{2} \right)$

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Throughout this chapter I showed how the logic of Western Armenian seems to be organized around concord effects, where two semantically similar morphemes come together or stand alone to give the same interpretation. I have demonstrated how different concord phenomena in Western Armenian can be compositionally interpreted given a covert operator, which licenses potentially multiple overt morphemes in the same clause.

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Chapter 5

Conclusion

ار این می از می از می از می می در این می از می می از می می می از می می می از مراجع می از می از می از می می می از می می می از می می از می از می از می از می می می از می می می می می می

This thesis revolved around the structure of Western Armenian. I have explored and analyzed a number of constructions, mostly focusing on concord phenomena. There are many phrases in WA where two or more morphemes having similar meanings co-occur. Some of these morphemes were head-initial and some were head-final. Investigating headedness throughout the language helped unlock the peculiarities of Western Armenian. A second unique property of Western Armenian was the optionality of the morphemes involved in the concord constructions. Optionality was seen with the plural marker, the specificity marker, the verbal negative marker in the presence of n-words, complementizers in conditional, temporal, and free relative constructions, and additive markers. Given the optionality and concord found in Western Armenian, one is left with many options of expressing the same sentence in different syntactic ways. The same semantic interpretation is achieved with a range of options involving the presence or absence of the particles seen throughout this thesis.

Two morphemes found in the same clause bearing the same feature, sometimes result in one semantic interpretation of that feature. This brought up the issue of compositionality. How are two morphemes, each of which can stand alone to give the desired meaning, cooccuring and maintaining a single interpretation of the feature. I used the mechanism of Agreement in the language to account for the resulting meanings in these concord structures. The main focus of the thesis was on negative concord. Following Zeijlstra (2004), Agreement between the negative morphemes of a clause gives us the desired meanings, either negative concord or double negation meanings. The negative features found in the language were

either interpretable or uninterpretable. For certain configurations of morphemes, namely if only uninterpretable feature bearing morphemes are present in the domain, a covert operator bearing the interpretable feature was the locus of meaning. I expanded the typology of negative concord languages. I demonstrated how WA treats subject and object n-words the same, a property of strict negative concord languages, but at the same time results in a double negation meaning with two verbal negative markers in the same clause, indicating that verbal negation in WA bears interpretable negation, a property of non-strict negative concord languages. WA negative concord also presents the typology with the twist of optional verbal negation, found in a few languages, like West Flemish.

I extended the analysis presented in Chapter 3, that of negative concord, to a number of other constructions. I have discovered a unique type of concord, which I analyze in Chapter 4, namely complementizer concord, demonstrated for example with the enclitic *-ne*, which seems to head a range of CPs and can mean {if, when, ever, or} depending on its environment. This morpheme sometimes co-occurs with a head initial complementizer in the same extended CP domain, resulting in the same interpretation as the phrase with only one of the C heads. CPs therefore seem similar to the negative phrases discussed above where multiple heads of the same category in the same clause yield one semantic realization of them. From complementizers I moved on to concord involving additive markers and demonstrate how the same analysis can compositionally account for the meanings involved.

A number of puzzles and loose ends remain. Throughout the thesis I indicated where future research questions which will be investigated. The particles and constructions of Western Armenian seen in this thesis should also be compared with parallel phenomena in Eastern Armenian. These two related languages will shed light on general typological properties and expectations.

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