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Adverbial clauses in Veracruz Huasteca Nahuatl from a functional-typological approach

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Jesús Francisco Olguín Martínez

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"El saber de mis hijos
hará mi grandeza"

CONTENTS

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ABBREVIATIONS

1	first person
2	second person
3	third person
A	subject of a transitive verb
ABS	absolutive
ACC	accusative
AFF	affirmation
AOR	aorist
APPL	applicative
ART	article
AV	actor voice
BEN	benefactive
CAUS	causative
COND	conditional
DE	discontinued event
DEF	definite
DEL	delimiter
DEM.P	pronominal demostrative
DEP	dependent aspect-mood
DES	desiderative
DET	determinant
DS	different subject
DIM	diminutive
DIR	directional

DIST	distributional
DU	dual
DUR	durative
DV	deverbal
EMPH	emphatic
FEM	feminine
FUT	future
GNR	generic tense
GEN	genitive
GER	gerund
HAB	habitual
HYP	hypothetical
INCH	Inchoative
INSTR	instrumental
IMP	imperative
IPFV	imperfective
INT	intensive
LIG	ligature
LOC	locative
LOC.GNL	general locative
MASC	masculine
NEG	negation
NMZR	nominalizer
NOM	nominative
OBJ	object

PST	past
PERF	perfect
PFV	perfective
PL	plural
POSS	possessive
POSTR	posterior converb
POT	potential
PURP	purpose
PREP	preposition
PRES	present
PRET	preterite
QUOT	quotative
RDP	reduplication
REFL	reflexive
REM.PST	remote past
RSLT	resultative
REP	reportative
SS	same subject
SEQ	sequential
SIM	simultaneous
SG	singular
ST	stative
SUB	subordinator
SBJ	subject
S	subject of an intransitive verb

SREL	superlative case
SRESS	superessive case
TOP	topic marker
UV	undergoer voice
UNSPEC	unspecified
VRBLZ	verbalizer

INTRODUCTION

The typological diversity of adverbial clauses, traditionally, has been addressed by only taking into account linking devices which explicitly encode abstract semantic relationships, such as time, condition, concession and purpose, among others. However, Martowicz (2011: 1) explains that in many languages of the world, such abstract semantic relationships are not only encoded by means of linking devices, but also languages have to resort to other less-explicit strategies.

Mithun (1984) explains that an adverbial construction is semantically specific if the general formal devices of the clause dictate a particular adverbial reading. For instance, although the adverbial clause may lack either ~~of~~ an adverbial conjunction or subordinator, the adverbial relation may reside in the combination of specific tense-aspect-mood (TAM) values; that is, the construction may recruit other less-explicit strategies.

Givón (2001) proposes that in order to account for the whole range of formal devices encoding adverbial clauses in the languages of the world, we must adopt a functional definition which relies not only on semantic but also morphosyntactic criteria. Taking as point of departure what Givón explains, I define an adverbial clause as the link between two propositions in which the dependent one encodes various adverbial meanings, such as time, condition or cause/reason and adds additional information to the other proposition (the main one).

This functional definition will therefore enable us to capture the typological diversity of explicit and less-explicit strategies that adverbial clauses make use of, such as

adverbial conjunctions, affixes, subordinators, clitics, case markers, phrasal adverbs, TAM markers, negative markers, directional and locative markers, to name but a few. Furthermore, it is important to mention that this functional definition will also enable us to take into account some syntactic structures that convey adverbial meanings such as asyndetic and syndetic coordinate clauses. In this respect, Givón (2002: 22) explains that in human language as in biology, there is always more than one structural means to encode the very same functional domain. This is due to the fact that multiple factors interact and compete in complex ways in specific biologically-based systems.

The proposal developed here explores adverbial clauses in Veracruz Huasteca Nahuatl (henceforth VHN), a Uto-Aztecan language spoken in Mexico. The theoretical background of the present study is based on the framework developed within the functional-typological approach which mainly focuses on the role of functional factors at all levels of grammatical analysis (Comrie, 1981; Givón, 2001).

This work investigates the semantic and morphosyntactic properties of adverbial clauses following Givón (2001) and Hetterle (2015). In doing so, I strongly argue that both specific interclausal semantic relations and fine-grained local semantic links are highly systematically associated with specific formal devices. Furthermore, I explain the general principles that shape and constrain such correlations.

The attractiveness of this proposal lies in the fact that few studies have focused on the correlation between the function and form of adverbial clauses. I thus offer a fine-grained proposal that addresses adverbial clauses in VHN in functional-communicative terms.

Corpus and methodology

This work can be divided into two stages. During the first stage, I focused on the book *Cuentos en náhuatl Huasteca Veracruzana* (Peregrina, 2015). This scientific work has 26 narratives made up of a basic story in which the participants recreate specific aspects of their daily life, such as sexuality, love, poverty, faith and revenge, to name but a few. The revised material consisted of 1365 clauses, of which 125 were adverbial clauses. During this stage, I analyzed in a rigorous scientific fashion the linguistic behavior of adverbial clauses in VHN. This enabled me to formulate the first hypotheses of the work. However, these hypotheses raised many theoretical puzzles. In addition, there were some semantic types of adverbial clauses that did not occur in the narratives. Thus, since the picture was far from clear, this led me to a second stage.

During the second stage, I went to Teposteco, Chicontepec, Veracruz. The data corpus which forms the basis of my research on VHN was compiled during this fieldwork period. These data helped me to corroborate some hypotheses and solve some thought-provoking puzzles. It is important to bear in mind that, in this work, I will use data drawn largely from my fieldwork period.

The data that I elicited were primarily collected from a speaker born and raised in Teposteco, a small community located in the Veracruz Huasteca during one fieldwork period of three weeks. My primarily language consultant was Victoriano De la Cruz, a linguistic native speaker. Other Nahuatl speakers that I worked with were Javier Pajarito Cora and Ramona Pajarito Hernández who reside in a small agricultural area situated in Caborca, Sonora. They are Nahuatl speakers from the Veracruz Huasteca who come to work to the fields of grapes every summer. When working with them, I discussed the data that Victoriano provided me. After long hours of data discussion, I found out that their

grammatical judgements regarding the constructions I collected from Victoriano were mostly uniform.

The methodology developed in this work proceeds as follows. First, I used a questionnaire that I myself elaborated in order to collect the data. The semantic types of adverbial clauses that I collected were temporal, conditional, concessive conditional, cause/reason, concessive, purpose, result and spatial clauses. When eliciting the different semantic types of adverbial clauses, I tried to provide enough contextual information to the speakers in order for them to have a solid picture of the use of the construction in question. Second, I transcribed and glossed the examples following the Leipzig glossing rules for interlinear morpheme-by-morpheme glosses. The complete corpus amounts to 150 adverbial clauses.

Organization of the thesis

This thesis is organized as follows: Chapter 1 introduces the reader to some of the features of VHN and its typological characteristics. Chapter 2 presents the theoretical framework on which the analysis is based ~~on~~ and defines the phenomenon of interest. Chapter 3 is the core of this thesis as it describes the different semantic and morphosyntactic properties of adverbial clauses.

CHAPTER 1

VERACRUZ HUASTECA NAHUATL: SOME BASIC GRAMMATICAL FACTS

Mexico is a multicultural, multi-linguistic country where 62 indigenous languages are officially recognized. Guerrero (2004: 4) mentions that most indigenous languages of Mexico belong to three major groups, Hokan, Otomanguean, and Uto-Aztecan, in addition to other linguistic families such as Algonquian, Huavean, Mayan and Mixe-Zoquean.

The Uto-Aztecan family is one of the largest linguistic families in the Americas. Estrada Fernández (2004) explains that this family takes its name from two indigenous groups: Ute at the Northern end (Arizona, California, Colorado, Nevada and Utah) and Aztec or Nahua at the Southern end (Central Mexico).

As can be observed in table 1, this family is divided into Northern and Southern languages. The Northern branch, on the one hand, consists of four subgroups: Numic (Mono, Northern Paiute, Timbisha Shoshoni, Shoshoni, Gosyute, Comanche, Kawaiisu, Chemehuevi, Southern Paiute, Ute), Takic (Cahuilla, Cupeño, Luiseño, Serrano, Gabrielino-Fernandeño), Tübatulabal (or Río Kern) and Hopi. The Southern branch, on the other hand, consists of another six subgroups: Pimic (Pima-Tohono O'odham, Pima Bajo, Pima Bajo from the mountain, Northern Tepehuan, Southern Tepehuan), Opatan (Opata, Eudeve), Tarahumara-Guarijío (Tarahumara, Guarijío), Tubar, Cahitan (Yaqui, Tehueco, Mayo) and Corachol-Aztecan (Cora, Huichol, Nahuatl).

Table 1. Classification of the Uto-Aztecan family (Estrada Fernández, 2004)

Northern Uto-Aztecan
Numic
Western: Mono, Northern Paiute
Central: Timbisha Shoshoni (Panamint), Shoshoni, Gosyute, Comanche
Southern: Kawaiisu, Chemehuevi, Southern Paiute, Ute
Takic
Cupan: Cahuilla, Cupeño, Luiseño
Serrano, Gabrielino-Fernandeño
Tübatulabal (or RíoKern)
Hopi
Southern Uto-Aztecan
Pimic
Pima-Tohono O'odham
Pima bajo (Névome) (extinct)
Pima bajo (from themountain)
Northern Tepehuan
Southern Tepehuan
Opatan
Opata
Eudeve
Tarahumara-Guarijío
Tarahumara
Guarijío
Tubar
Yaqui-Mayo (Cahitan)
Yaqui
Tehueco (extinct)
Mayo
Corachol-Aztecan
Corachol: Cora, Huichol
Nahuatl

Nahuatl is a Southern Uto-Aztecan language that belongs to the Corachol-Aztecan branch. Nahuatl is perhaps one of the best documented Native American languages. Canger (1988) explains that no American Indian language offers a richer and more diversified fund of material than this Uto-Aztecan language.

There are around 1.5 million Nahuatl speakers in Mexico (National Institute of Statistics and Geography, 2010). However, because of the geographical distance among Nahuatl speakers, many spoken Nahuatl varieties have arisen. Flores Farfán (2010: 38) mentions that modern Nahuatl is a set of almost 12 varieties with different degrees of intelligibility. On the contrary, institutions such as the *National Indigenous Languages* also known as INALI and the *Summer Institute of Linguistics* (SIL) recognize almost 31 varieties which define as languages (INALI, 2009: 101).

Hasler (1995: 82) explains that the contributions of Hasler (1954; 1961) and Lastra (1986) are essential in order to classify Nahuatl varieties. Hasler (1954) calls them: West Nahual, Northern Nahuatl, Eastern Nahuatl and Central Nahuatl, on the one hand, and Lastra (1986) calls them: Western Peripheral Nahuatl, Huasteca Nahuatl, Eastern Peripheral Nahuatl and Central Nahuatl, on the other hand.

In this work, the term VHN is used to refer to the variety spoken in the Huasteca region which encompasses the states of San Luis Potosí, Northern Veracruz, Northwest Hidalgo and a small zone of Northern Puebla. The Veracruz Huasteca is geographically located in the Northern part of the state of Veracruz and is divided into high and low Huasteca.

Map 1: Veracruz Huasteca (Peregrina, 2015)

The data I use in this work are drawn largely from one field work period in Teposteco, Chicontepec, Veracruz. This community has 363 inhabitants and Spanish is used as the main means of instruction in all the different educational levels (de la Cruz, 2010: 9).

Map 2: Teposteco, Chicontepec, Veracruz (INEGI, 2000 cited in de la Cruz, 2010)

1.1 Grammatical background

The discussion in this chapter is a descriptive overview intended to give the reader ~~with~~ an acquaintance with the basic typological characteristics of VHN without going into exhaustive detail. It is intended to provide readers with basic facts about the phonology, morphology and syntax of this language. In what follows, these areas of VHN are dealt with in 1.1.1, 1.1.2, 1.1.3 and 1.1.4 respectively.

1.1.1 Phonological sketch

This section gives a very basic description of VHN phonology, in particular of the phonemic inventory of consonants and vowels.

The phonological system in VHN consists of 15 consonant phonemes. Table 2 shows the inventory of consonant phonemes of this Uto-Aztecan language.

Table 2. Consonant phonemes in VHN.

	Bilabial	Alveolar	Post-alveolar	Velar	Glottal
Plosive	p	t		k kʷ	
Affricate		ts	c		
Lateral affricate		tl			
Fricative		s	ʃ		h
Nasal	m	n			
Lateral approximant		l			
Approximant			j	w	

On the other hand, VHN has four long vowels and four short vowels. Table 3 shows the vowel inventory. In order to distinguish long vowels from short vowels I use (:).

9

Table 3. Vowels in VHN.

	Front	Central	Back
High		i i:	
Mid	o o:		e e:
Low		a a:	

1.1.2 Word verb forms, noun phrases and adpositional phrases

Before providing information about the simple clause structure, it is convenient to discuss some important linguistic elements: (i) word verb forms, (ii) noun phrases and (iii) adpositional phrases. The description of these elements will provide the reader with a more complete picture of the simple clause structure in VHN and will provide the background information necessary for the analysis of adverbial clauses in further chapters.

1.1.2.1 Word verb forms

Nahuatl is a polysynthetic language with agglutinating tendency since words are composed of many morphemes that have independent meanings. However, these words do not stand alone. A simple clause in this language may consist only of a verbal word encoding not only the participants, but also voice information, such as valence change mechanisms, TAM markers, illocutionary markers and negative markers, among others.

VHN has a set of pronouns which function as bound and free morphemes. Consider the following tables.

Table 4. Bound pronouns in VHN (Peregrina, 2015)

Number	Person	Subject	Object	Reflexive Reciprocal Medial	Human Unspecified Object	Non-human Unspecified Object
Singular	1st	ni-	nech-			
	2nd	ti-	mits-			
	3rd		ki-	mo-	te-	tla-
Plural	1st	ti-	tech-			
	2nd	in-	amech-			
	3rd		kin-			

Table 5. Free pronouns in VHN (Peregrina, 2015)

Number	Person	Single form
Singular	1st	na
	2nd	ta
	3rd	ya
Plural	1st	tohuanti
	2nd	anohuanti
	3rd	inohuanti

The above facts are some key elements of word verb forms, now let me provide some examples.[1]

---

[1] It is important to bear in mind that the bound pronouns '3SG.SBJ' and '3PL.SBJ' are not formally marked as can be observed in table 4.

In (1), the verbal root *kuah* 'to eat' is encoded by two participants. The third person singular subject (not formally marked) and the second person singular object pronominal index *mits-*. Note the morpheme *-s* suffixed to *kuah* 'to eat'.

(1)   mits-kuah-s.

        2SG.OBJ-eat-FUT

        'He will eat you.'

In (2), the verbal root *yah* 'to go' is encoded, in this case, by one single participant; that is, the third person singular subject. Note the perfective marker *-ki* suffixed to *yah* 'to go'.

(2)   yah-ki.

        go-PFV

        'He left.'

In (3), the verbal root *choca* 'to cry' is encoded by one participant, the second person singular subject pronominal index *ti-*. Note the imperfective marker *-yaya* suffixed to *choca* 'to cry' encoding an ongoing process.

(3)   ta   ti-choca-yaya.

        2SG.SBJ   2SG.SBJ-cry-IPFV

        'You were crying.'

In (4), the verbal root *kuah* 'to eat' is encoded by two participants; that is, the third person singular subject in agreement with the noun phrase *okichpil* 'boy' and the third person singular object pronominal index *-ki* in agreement with the noun phrase *sopelik* 'candy'.

(4)   okichpil   ki-kuah-s   sopelik.

        boy   3SG.OBJ-eat-FUT   candy

        'The boy will eat candy.'

1.1.1.2 Noun phrases

Noun phrases in VHN can be either a noun or a noun with one of its morphological and syntactic modifiers or a free pronoun. Thus, consider the following examples.

In the example in (5) the noun phrase *toahui* 'woman' is in agreement with the third person singular subject affixed to the verbal root *nehnen* 'to walk'. On the other hand, the example in (6) *ya yolpakiyaya* 'he was happy' is encoded by the third person singular subject free pronoun and the imperfective marker *-yaya*.

(5)   toahui   neh-nen-s

        woman   RDP-walk-FUT

        'The woman will walk all day long'

(6)   ya   yol-paki-yaya.

       3SG.SBJ   heart-cheerful-IPFV

       'He was happy.'

1.1.1.3 Adpositional phrases

Adpositional phrases in VHN are postpositional phrases. Consider the following examples encoded by *-pan*.

(7)   a. no-**pan**.

          1SG.POSS-LOC

          'On me.'

       b. hual-motlalo-k   tonati-**pan**.

          DIR-run-PFV   sun-LOC

          'He ran in the sun.'

On the other hand, Peregrina (2015) explains that, in his corpus, he found out that adpositional phrases are prepositional phrases. Consider the following examples that the author provides.[2]

---

[2] I translated the examples from Spanish to English. However, I decided to keep the original translation provided by Peregrina (2015).

In (8), the adposition *panopa* 'inside' appears before the noun *kali* 'house'.

Peregrina (2015: 35)

(8)	akila	ki-chihua	nopa	teki-tl	**panopa**	kali.
	who	3SG.OBJ-do	DET	work-ABS	inside	house

'who did the work inside this house.'

'quién hacía el trabajo en esta casa.'

In a similar fashion, the adposition *pa* 'in' in (9) appears before the noun phrase *cha* 'house'.

Peregrina (2015: 35)

(9)	tlen	kema	ti-on-asi	**pa**	mo-cha.
	that	when	2SG.SBJ-DIR-arrive	in	2SG.POSS-house

'when you arrive to your house.'

'que cuando llegues a tu casa.'

The above scenario seems to suggest that, because of contact with Spanish, adpositions in VHN are being grammaticalize in prepositional phrases. However, this puzzle will remain open since further empirical evidence is necessary.

1.1.3 Simple clause

Simple clauses in VHN are encoded by means of three main strategies: (i) the affixation of index pronouns to verbal roots, (ii) noun phrases in agreement with index pronouns and (iii) free pronouns. As explained above, it is also important to bear in mind that in a simple clause

the verbal word also encodes voice information, such as valence change mechanisms, TAM markers, illocutionary markers and negative markers, among others.

Another interesting fact related to the simple clause structure is~~,~~ word order. Comrie (1981) explains that, typologically, it is common to describe languages taking as point of departure the relative order of the subject (S), the Object (O) and the verb (V). This gives rise to six logically possible types. Of these SOV and SVO are the most common in the world´s languages, VSO is somewhat common and on the other hand, VOS, OVS and OSV are much rarer.

Peregrina (2015: 38) notes that simple clauses in VHN show different word orders. However, ~~the~~ SVO is the most frequent. In similar lines of thought, De la Cruz (2010) notes that SVO is the most common word order in VHN. The following examples shed light on this linguistic behavior.

The example in (10) shows SVO order, the example in (11) OVS order and the example in (12) VOS order.

Peregrina (2015: 38)

	S	**V**		**O**	
(10)	nopa tlaka-tl	ki-chih-chi-ki		se	kua-kuchar.
	DET person-ABS	3SG.OBJ-RED-made-PFV		one	wood-spoon

'this boy made a wooden spoon.'

'este muchacho hizo una cuchara de madera.'

| | **O** | | **V** | **S** |
(11) pues nopa arros ki-pehpen-k-e toto-me.

well DET rice 3SG.OBJ-pick.up-PFV-PL bird-PL

'well the birds picked up the rice.'

'pues el arroz lo juntaron los pájaros.'

| | **V** | **O** | **S** |
(12) pampa ki-pia fuersa nopa juan.

because 3SG.OBJ-have strenght DET Juan

'because San Juan had strenghts.'

'porque tenía fuerzas este San Juan.'

1.1.4 Alignment system

Malchukov et al. (2010) explain that alignment refers to the comparison of the properties of arguments across constructions. The arguments A and P of a transitive predicate are grouped in relation to the single argument S of an intransitive predicate. In order to determine how S, A and P are grouped, the following aspects are taken into account: (i) case marking of nouns, (ii) the encoding of independent pronouns and (iii) affixation of pronominal indexes to verbal predicates.

Comrie (1978) mentions that five alignment systems are logically possible: (i) neutral (S, A and P are encoded in a similar fashion), (ii) tripartite (S, A and P are treated in a different fashion), (iii) nominative-accusative (S, A are treated in a similar fashion while

P is not), (iv) ergative-absolutive (S and P are treated in a similar fashion while P is not) and (v) horizontal alignment (A and P are treated in a similar fashion while S is not).

VHN is a nominative-accusative language since S of an intransitive construction and A of a transitive construction are marked in the same way, while P of the transitive construction is marked differently. Consider the following scheme in (13).

(13)

```
┌─────┐
│  S  │  ┌─────┐
│     │  │  P  │
│  A  │  │     │
└─────┘  └─────┘
```
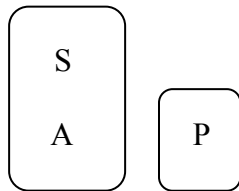
Since VHN is a language with no case marking, bound pronouns affixed to verbal roots play a crucial role in determining the function of the participants. The following examples shed light on such linguistic behavior.

It is easy to recognize the single participant S in the intransitive construction in (14). In this clause the noun phrase *nosihua* 'my wife' is in agreement with the third person singular subject. In addition, the verbal root *kuatsah* 'to scream' lacks ~~of~~ an object. On the other hand, in the example in (15), the participant A *nopa toahui* 'the woman' of the transitive construction is in agreement with the third person singular subject encoding the verbal root *kuah* 'to eat'. In addition, the participant P *tamali* 'tamales' is in agreement with the third person plural object pronominal index *kin-*.[3]

---

[3] Note that I am using ø- '3SG.SBJ' in both (14) and (15) in order to illustrate a specific linguistic behavior. However, it is important to bear in mind that '3SG.SBJ' is not formally marked in VHN.

	S		**S**	**INTRANSITIVE VERB**
	↓		↓	↓

(14)   no-sihua   ø-kuatsah-skia

1SG.POSS-wife   3SG.SBJ-scream-COND

'My wife would scream'

	A		**A**	**P**	**TRANSITIVE VERB**		**P**
	↓		↓	↓	↓		↓

(15)   nopa   toahui   ø-kin-kuah-ki   tama-li],

DET   woman   3SG.SBJ-3PL.OBJ-eat-PFV   tamales-ABS

'The woman ate tamales'

1.1.5 Primary object language

Dryer (1986) explains that some languages make a distinction between direct and indirect objects, while others make a distinction between primary and secondary objects. On the one hand, a primary object is R (recipient) in a ditransitive clause or P in a transitive clause. On the other hand, a secondary object is T (theme) in a ditransitive clause. Consider the following diagram (adapted from Dryer, 1986):

(16)

INTRANSTIVE   S   Primary object

TRANSITIVE   A   P

DITRANSITIVE   A   T   R

Secondary object
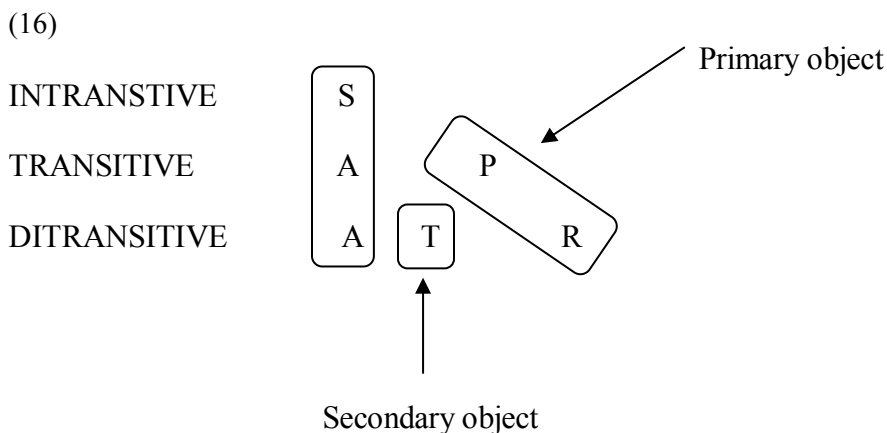
      VHN is a primary object language. In order to support my argument is necessary to show the linguistic behavior of ditransitive constructions. In the example in (17) the

transitive verbal root *kuah* 'to eat' is encoded by two participants: (i) the participant A is the third person singular subject in agreement with the noun phrase *nopa toahui* 'the woman' and (ii) the participant P is formally marked by the third person plural object pronominal index *kin-* in agreement with the noun phrase *michime* 'fish'.

(17) nopa   toahui   kin-kuah   michi-me

     DET   woman   3PL.OBJ-eat   fish-PL

     'The woman eats fish.'

On the other hand, in the example in (18) the ditransitive verbal root *maka* 'to give' is encoded by the participant A, formally marked as the second person singular subject pronominal index *ti-*, the participant R (primary object), formally marked as the second person singular object pronominal index *-nech-*. Moreover, the participant T (secondary object) is formally marked by means of the noun phrase *moamah* 'your book'. The linguistic behavior of this example shows that VHN is a primary object language since there seems to be a preference to mark R (primary object) in the ditransitive predicate rather than T (secondary object).

(18) ti-nech-maka-s   se   mo-ama-h

     2SG-SBJ-2SG.OBJ-give-FUT   one   2SG.POSS-paper-CNST

     'You will give me your book.'

1.1.6 Head-marking Language

Nichols (1986) notes that in head-marking languages there are markers on the verb that agree with the subject and object. In addition, it is important to bear in mind that any nouns

in the same clause have no marking. On the other hand, in dependent-marking languages, the verb does not track the subject and object statuses, but rather they are marked on nouns and noun phrases.

VHN is a head-marking language since the subject and object are obligatory marked on the verb. Consider the following examples.

In the example in (19) the single argument is marked on the verbal root *yohui* 'to go'. In the same manner, in (20) the two arguments are marked on the verbal root *kuah* 'to eat'. This supports the idea that VHN is a head-marking language.

(19)   ni-yohui-yaya.

  1SG.SBJ-go-IPFV

  'I was leaving.'

(20)   ni-kin-kuah-ki   tama-li.

  1SG.SBJ-3PL.OBJ-eat-PFV   tamal-ABS

  'I ate tamales.'

To sum up, VHN is a polysynthetic language with agglutinating tendency. Simple clauses are encoded by means of three main strategies: (i) the affixation of index pronouns to verbal roots, (ii) noun phrases in agreement with index pronouns and (iii) free pronouns. In addition, simple clauses show different word orders, such as SVO, OVS, VOS. Finally, VHN is a nominative-accusative language, a primary object language and a head-marking language. In the following chapter, I will present the theoretical framework on which the analysis of adverbial clauses is based on.

CHAPTER 2

ADVERBIAL CLAUSES: THEORETICAL BACKGROUND

In this chapter I survey adverbial clauses from a functional-typological approach.[4] In doing so, I strongly argue that both specific interclausal semantic relations and fine-grained local semantic links are highly systematically associated with specific morphosyntactic properties. Furthermore, I explained the general principles that shape and constrain such correlations. The analysis is built upon the ideas proposed by Givón (2001) and Hetterle (2015).[5]

The chapter will introduce the reader to the theoretical background of adverbial clauses and other theoretical issues relevant to the typological study of these constructions. The layout of the chapter is sketched out in the following fashion. Section 2.1 discusses the function and form of adverbial clauses and section 2.2 addresses the different types of adverbial clauses according to their semantic and morphosyntactic properties.

2.1 Function and form of adverbial clauses: Some basic notions

Clause combining is a linguistic topic that has been addressed, from a functional-typological perspective, by different authors, among them are Lehmann (1988), Van Valin and LaPolla (1997), Givón (2001) and Comrie and Estrada (2012), to name but a few.[6]

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[4] Hetterle (2015: 9) mentions that the functional-typological approach has been concerned with the cross-linguistic comparison of linguistic structures and the functional motivations by which linguistic variation can be explained. In this respect, a major assumption of this empirical science is that linguistic structure varies, but such variation is highly systematic associated, reflecting universal properties of human communication.

[5] Some authors such as Thompson and Longacre (1985), Thompson et al. (2007) and Bril (2010) have addressed such correlations only with specific interclausal semantic relation of adverbial clauses.

[6] These approaches have something in common. It is argued that the different structural possibilities of clause combining display a correlation between semantic complexity and structural complexity. Consequently, the higher is the semantic complexity, the higher will be the syntactic complexity.

Clause combining, traditionally, has been addressed by authors such as Lyons (1968), Quirk et al. (1985) and Longacre (2007), as a coarse-grained distinction between: (i) coordination and (ii) subordination. These authors, however, generally have placed emphasis on two discrete features, i.e. the dependency and embedding of the clause. Under this binary conception, coordination is more dependent and less embedded. On the contrary, subordination is more dependent and more embedded.[7]

Table 1. Coarse-grained distinction between coordination and subordination.

Coordination	-dependent	-embedded
Subordination	+dependent	+embedded

The analysis that proposes discrete divisions has been called the traditional approach of coordination and subordination. Many scholars, however, have criticized this traditional approach and have offered other theoretical notions on this linguistic topic. One of the main reasons is that the traditional approach fails to address the typological diversity of languages that do not belong to the Indo-European family.

These authors have been divided into two groups: (i) those who propose a tripartite approach suggesting a third group called co-subordination in order to take into account specific types of constructions, such as medial clauses, converbs and serial verbs (see Van

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[7] Gast and Diessel (2012) explain that the most common and traditional interpretation is that of a coordinate clause as the absence of syntactic, semantic or prosodic dependency between the clauses. In this sense, a clause can stand by itself, be interpreted independently and form an intonation phrase of its own. On the other hand, a subordinate clause depends on some other constituent and lacks at least one of the properties mentioned previously about coordinate clauses.

Valin and LaPolla, 1997), and (ii) those who strongly suggest that these relations have to be addressed as a continuum and not as a dichotomy (see Lehmann, 1988; Givón 2001; Cristofaro, 2003; Comrie, 2008; Mauri, 2008a). With respect to the latter approach, it is proposed that is not possible to talk about taxonomies or a list of different types of clauses, but rather about a list of semantic and morphosyntactic properties used by different languages.

Thompson et al. (2007) explain that the relationship between subordinate and coordinate clauses has to be addressed as a continuum. The authors mention that three types of subordinate clauses are distinguished: (i) complement clauses, which function as noun phrases, (ii) relative clauses, which function as modifiers of nouns and (iii) adverbial clauses, which function as modifiers of verb phrases or entire clauses.

Thompson et al. (2007) explain that complement and relative clauses represent embedding structures. Nonetheless, adverbial clauses relate to the main clause as a whole and are the ~~less~~ subordinate of the three complex clauses mentioned above.

As Givón (2001) explains it, adverbial clauses are not syntactically embedded and tend not to appear under a joint intonation contour with their main clause, but rather they hold semantic dependencies with their main clause. The author notes that the traditional analysis of adverbial clauses as adjuncts (adverbs) is insufficient to characterize their syntactic function. Thus, some authors, such as Diessel (2013), explain that adverbial clauses subsume a wide range of constructions with different syntactic and semantic properties often overlapping with the properties of coordinate clauses. Let me explain this claim.

In the coordinate construction in (1), three adverbial meanings are inferred. First, a subsequent event: after Mary pushed Richard, he fell down. Second, a causal relation:

24

because Mary pushed Richard, he fell down. Third, a result relation: Mary pushed Richard as a result he fell down. These inferences are what make coordinate and adverbial clauses similar. However, according to Haspelmath (2004) one significant difference between adverbial and coordinate clauses is the permutability of the clauses. On the one hand, some adverbial clauses, such as temporal, conditional, cause/reason and concessive clauses, allow such permutability without any logico-semantic change. On the contrary, coordinate clauses do not allow such permutability.[8]

(1)   Mary pushed Richard and fell down.

Thompson et al. (2007) mention that adverbial clauses are classified into several sub-groups, which can express the following interclausal semantic relations: time, condition, cause/reason, purpose, among others. Along similar lines of thought, Diessel (2013) mentions that adverbial clauses are commonly divided into several semantic sub-types expressing time, condition, cause/reason, purpose, and other interclausal semantic relations. In a similar fashion, Givón (2001) proposes the following classification of interclausal semantic relations of adverbial clauses. Thus consider:

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[8] Permutability is a term that Haspelmath (2004) uses to refer to the change of order of clauses.

Table 2. Interclausal semantic relations of adverbial clauses (Givón, 2001).

Interclausal semantic relation	Adverbial clause	Main clause
Time	*When she came,*	He left.
Condition	*If he doesn´t show up,*	We´ll leave.
Cause	*Because she shot him,*	He is crippled for life.
Reason	*Because I didn´t do it,*	They fired me.
Concessive	*Although they are poor,*	They are happy
Purpose	*In order to do it right,*	You must pay attention.

Adverbial clauses have been addressed, by different authors, from different theoretical perspectives. For instance, Kortmann (1997) focused on the function and form of adverbial conjunctions in Indo-European languages, Dixon (2009) on the semantics of adverbial clauses in typological perspective and Cristofaro (2003) and Hetterle (2015) on the downgrading hierarchy of adverbial clauses. Few studies, however, have focused on the correlation between the function and form of adverbial clauses. Thus, this chapter seeks to analyze ~~such~~ systematic association.

The typological diversity of adverbial clauses is large. However, there seems to be a correlation between different semantic types of adverbial clauses and the morphosyntactic properties that these constructions make use of. The range of formal devices of an adverbial clause depends heavily on the morphosyntactic choice of the main clause and vice versa. However, both choices are highly constrained to the nature of the semantic relation held between the proposition of the adverbial and main clause. For instance, Hetterle (2015)

explains that there are highly systematic associations between fixed TAM markers and specific semantic types of adverbial clauses, as is illustrated in table 3.

Table 3. Correlations between TAM markers and the adverbial clause (Hetterle, 2015)

Semantic type of adverbial clause	Fixed TAM markers
Precedence	Non-past/imperfective
Subsequence	Past/perfective
Simultaneity	Imperfective
Condition	Mood
Cause/reason	Past/perfective
Purpose	Future/imperfective
Result	Future/perfective

Givón (2001) and Hetterle (2015) note that the structural coding mirrors the semantics and the function of the clause.[9] However, unlike Hetterle (2015), Givón (2001) proposes that such interclausal semantic relations may also show specific fine-grained local

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[9] Cristofaro (2003) proposes that there is a predetermination of the semantic features of the adverbial clause, such as for instance, TAM markers.

semantic links; that is, each interclausal semantic relation may in turn be decomposed further into finer levels. Let me explain his claim.

In the examples in (2), the because-clauses seem not to show a structural distinction. However, the examples in (2) are not encoding the very same semantic links between the adverbial clause and the adjacent main clause. They depict thus finer-levels, which in this chapter will be called fine-grained local semantic links.

(2)   a. Because I saw the thieves, I got scared.

        b. Because my head hurt, I went to the hospital.

        c. Because she shot me, I got hurt.

This will be one of the main goals in this chapter; that is, to explain the motivation of the correlations between the interclausal semantic relations/fine-grained local semantic links (Givón, 2001; Hetterle, 2015) and the morphosyntactic properties.

The typological diversity of adverbial clauses, traditionally, has been addressed by only taking into account linking devices which explicitly encode abstract semantic relationships, such as time, condition, concession and purpose, among others. However, Martowicz (2011: 1) explains that in many languages of the world, such abstract semantic relationships are not only encoded by means of linking devices, but also languages have to resort to other less-explicit strategies.

It is important to bear in mind that, as explained by Mithun (1984), an adverbial construction is semantically specific if the general formal devices of the clause dictate a particular adverbial reading. She explains that although the adverbial clause may lack an

28

adverbial conjunction or subordinator, the adverbial relation may reside in the combination of specific TAM values; that is, the construction may recruit other less-explicit strategies.

Givón (2001) proposes that in order to account for the whole range of formal devices encoding adverbial clauses in the languages of the world, we must adopt a functional definition which relies not only on semantic but also morphosyntactic criteria. Taking as point of departure what Givón explains, I ==define adverbial clauses as the link between two propositions== in which the dependent one encodes various adverbial meanings, such as time, condition or cause/reason and adds additional information to the other proposition (the main one).

This functional definition will therefore enable us to capture the typological diversity of explicit and less-explicit strategies that adverbial clauses make use of. Furthermore, it is important to mention that this functional definition will also enable us to take into account, in this chapter, some syntactic structures that convey adverbial meanings such as asyndetic and syndetic coordinate clauses. In this respect, Givón (2002: 22) explains that in human language as in biology, there is always more than one structural means to encode the very same functional domain.

The following formal devices encode explicitly and less-explicitly, a particular type of interclausal semantic relation and fine-grained local semantic link. However, it is important to mention that because of space and clarity, I will not address other formal strategies:

(i)   TAM markers in the adverbial clause and the main clause.

(ii)   An adverbial conjunction, a subordinator or an affix.

(iii)   Phrasal adverbs in the adverbial and/or main clause.

(iv)   Negative markers.

(v)   Directional and locative markers.

2.2 Adverbial clauses: A semantic and morphosyntactic analysis

The adverbial clauses that will be surveyed in the next sections are: (i) temporal clauses, (ii) conditional clauses, (iii) concessive conditionals, (iv) cause/reason clauses, (v) concessive clauses, (vi) purpose clauses, (vii) result clauses and (viii) spatial clauses.

2.2.1 Temporal clauses

Temporal clauses add additional temporal information to the proposition of the main clause. These constructions display different temporal fine-grained local semantic links. Givón (2001:330) proposes the following:

Table 4. Fine-grained local semantic links of temporal clauses

Fine-grained local semantic link	Adverbial clause	Main clause
Precedence	*Before she came,*	He left.
Subsequence	*After she came,*	He left.
Simultaneity	*While she was working,*	He left.
Point of coincidence	*As she was coming,*	He saw her.
Terminal boundary	*Till she left,*	He worked steady.
Initial boundary	*From the minute she came,*	He ignored her.

Because of space and clarity, I will discuss in what follows only some temporal fine-grained local semantics: (i) precedence, (ii) subsequence and (iii) simultaneity.

2.2.1.1 Precedence

Precedence holds for a temporal fine-grained local semantic link in which before one event occurs, another event takes place. As will be observed, precedence is highly systematically associated with the following morphosyntactic properties:

(i)   The phrasal adverbs 'not yet' and 'already'.

(ii)   Negative markers.

(iii)   Certain TAM markers, such as perfective, past and imperfective markers.

Precedence is highly systematically associated with the above formal devices since they are either events that have not taken place yet or ongoing processes. In this respect, the adverbial clause encodes either the non-realization of a situation that may come to hold in the future or an ongoing process by means of an imperfective marker and/or the negative phrasal adverb 'not yet' whereas the main clause encodes, by means of a perfective or past marker, the event which occurred before the event encoded in the adverbial clause. The following examples shed some light on such highly systematic associations. Sometimes, however, the picture is far from clear.

In the example (3) from Eudeve (Uto-Aztecan), the adverbial clause that appears with the subordinator *-do* encodes, by means of *cáque* 'not yet', a situation that may come to hold in the future. Moreover, the main clause encodes, by the phrasal adverb *vínu* 'already, the event which happened prior to the arrival.

Eudeve (Pennington 1981:77)

(3) [nap   **cá-que**   has-do],

     2SG.SBJ   not.yet   come-SUB

     'Before you came,

     nee   **vínu**   ivide-éni-tu-d.

     1SG.SBJ   already   here-be-IPFV-?

     I was already here.'

The same linguistic behavior seems to be attested in other languages of the world. In this sense, precedence tends to be encoded by the phrasal adverbs 'not yet' and 'already'.

In the example in (4), from Buru (Malayo-Polinesian), the adverbial clause *da mata mohede* 'before he died' <mark>encodes an ongoing process</mark> by means of the phrasal adverb *mohede* 'not yet' while its adjacent main clause *da stori gam naa* 'this is what he said' encodes the event which happened before the subject in question died.

Buru (Grimes, 1991: 421)

(4)   [da   mata   **mohede**],

       3SG.SBJ   die   not.yet

       'Before he died,

       da   stori   gam   naa.

       3SG.SBJ   speak   like   this

       this is what he said.'

In a similar fashion, in the example in (5), from Tarahumara (Uto-Aztecan), the adverbial clause that occurs with the subordinator *-o*, encodes, by means of *peca co* 'not yet', an <mark>ongoing</mark> process. Note that the event which happened before he died is encoded in the main clause by the future morpheme *-ma* suffixed to the verbal root *nawa* 'to arrive'.

Tarahumara (Brambila, 1953: 553)

(5)   [**peca** **co**   muku-y-o],

       not   yet   die-GER-SUB

       'Before he died,

       nawa-ma   ne   ba.

       arrive-FUT   1SG.SBJ   EMPH

       I will arrive.'

As can be observed in (6), precedence in Lezgian (Lezgic), is expressed by means of the phrasal adverb *hele* 'still' along with the negative marker *t-* prefixed to the verbal root *awu* 'to do', something similar to 'not yet'. Note that the event which happened prior to his/her getting up; that is, his/her remembering of the tall mountains, is encoded by the past marker *-j* suffixed to the verbal root *xta* 'to return'.

Lezgian (Haspelmath, 1993: 385)

(6)   [**hele**   mes.e-laj   ǭaraǧ   **t**-awu-nmaz],

       still   bed-SREL   get.up   NEG-do-POSTR

       'Before I got up,

       zi   rik´e-l   q´aq´an   daǧ-lar   xta-na-**j**.

       1:GEN   heart-SRESS   high   mountain-PL   return-AOR-PST

       I remembered the tall   mountains.'

Serrano (Crook, 1974)

(7) [**uvia**   nɨˊ   mi-aqa],

already   1SG.SBJ   go-gonna

'Before I left,

xʷaan=vɨ-ᵗ   nɨ-ykaˊ   vɨravɨraˊn.

John=3SG.SBJ=PST   1SG.OBJ-PREP   speak

John talked to me.'

Negative markers seem to be also recruited by precedence. As explained above, precedence is a temporal fine-grained link in which events are either ongoing process or events that have not taken place yet. Thus, for this reason these clauses very often show negative markers. In a similar line of thought, according to Thompson et al. (2007) there are some languages in which before-clauses are conceptually negative from the point of view of the event in the main clause. For instance, in (8), prior to her leaving, another event occurred; that is, *pana' kwen=evu' puuyu' teer neert myaac* 'Lady Moon told them all about this'. As can be observed in (8), the negative marker *qay'* along with *mutu´* 'before' encode precedence.

Serrano (Ramon and Elliott 2000: 15)

(8) pana'   kwen=evu'   puuyu'   teer   neert   myaac

      that.way   QUOT=3.3   all   tell   lady   moon

      'Lady Moon told them all about this

      [**mutu'**   **qay'**   myaa-w   hayp 'ip].

      before   NEG   go-DS   somewhere

      before she left.'

Hetterle (2015: 110) explains that it is rare for TAM markers to be the exclusive signal of the interclausal semantic relation of the adverbial clause. In such cases TAM markers represent the clause linkage device for the reason that it is the only overt signal of a possible adverbial semantic relation between the clauses. However, TAM markers cue the interclausal semantic relation rather than encoding it explicitly, as adverbial conjunctions, subordinators or affixes do; that is, TAM markers are less-explicit strategies.

Imperfective markers along with perfective and past markers encode precedence in several languages. This seems to be the case of Ayutla Mixe (Mixe-Zoquean). In this language, as is illustrated in (9), the event encoded in the main clause *ojts nexäty* 'I met him' occurred before the event encoded in the *ku* 'when' clause, (his about to come). The imperfective marker *nojty* that appears in the *ku* 'when' clause reveals that such an event is an ongoing process. Moreover, the event in the main clause was already realized at some point during his coming, as is encoded by the past marker *ojts*. Note that the example in (9) expresses a logical relation of simultaneity. That is to say, *ojts nexäty* 'I met him' and *nojty*

ntimymenään yää 'he was about to come' <mark>happened</mark> at the same time. As we shall see further below, simultaneous events are also encoded by imperfective markers.

Ayutla Mixe (Romero Méndez, 2008: 579)

(9) jëë   **ojts**   n-ex-ät-y

     AFF   PST   1A-see-VRBLZ-DEP

     'Yes, I met him

     [**ku**   **nojty**   n-timy-men-ä-än   yää].

     when   IPFV   3S-just-come-DES   DEM.P

     when he was about to come.'

2.2.1.2 Subsequence

Subsequence holds for a temporal fine-grained local semantic link in which 'After X has happened, then Y' occurs. Complicating the picture further, there seem to be two possible instances of subsequent events. First, we have those instances which express a logical relation of chronological succession; that is, the main clause event occurs after the event encoded in the adverbial clause has occurred, without any causal relationship existing between the two events. Second, we have those instances which express not only chronological subsequence, but also a logical relation of cause/reason; that is, the completion of the first event, encoded in the adverbial clause, motivates the realization of the second event, encoded in the main clause. This temporal fine-grained local semantic link is highly systematically associated with the following mechanisms:

(i)   The phrasal adverb 'already'.

(ii)   Past and perfective markers.

2.2.1.2.1 Subsequence: Chronological order

Subsequent events that merely show a relationship of chronological order are characterized by the above morphosyntactic properties for the reason that they encode the sequential order in which the events occur; that is, the development of events in chronological succession.

In the example in (10) from Northern Tepehuan (Uto-Aztecan), the first event *ka=ibíka úúnui* 'when the corn ripened' is encoded by the phrasal adverb *-ka* 'already' and *-ka* 'when' while the second event is encoded in the main clause. In a similar fashion, in West Coast Bajau (Austronesian) the first event expressed in the *paga* 'when' clause is encoded by the phrasal adverb, *ai no* 'already', as can be observed in (11). In this example, the moment when he took a nail happened after he had bought the king´s post.

Northern Tepehuan (Bascom, 1982: 380)

(10)   [**ka**=ibí-**ka**   úúnu-i],

    already-yielding-when   corn-ABS

    'When the corn ripened,

    dʸúúki   gai   oidʸíg.

    rain   stop   world

    it stopped raining.'

West Coast Bajau (Miller, 2007: 415)

(11) [**paga**   **ai no**   Ø-beli=ni   tiang   rojo   e],

     when   already   UV-by=3SG.SBJ   post   king   DEM

     'When he had bought the king´s post,

     iyo   pan   ng-endo´   paku.

     3SG.SBJ   TOP   AV-take   nail

     he took a nail.'

The example in (12) from Cavineña (Pano-Tacan) makes use of a less-explicit strategy to encode a subsequent event. In this construction the perfective marker -*wa* that appears in the adverbial clause and the perfective marker suffixed to the verbal root *maju* 'to die' in the main clause cue the temporal fine-grained local semantic link of subsequence. In this example, the mother´s death happened after ~~having~~ been around in certain places.

Cavineña (Guillaume, 2008: 124)

(12) [rekwana=keja   ju-neni-**wa**=ke],   =taa

     this_stuff_here=LOC.GNL   be-random-PFV=LIG   =EMPH

     'After having been around these places,

     ekwe   mamita   maju-**wa**.

     1SG.GEN   mommy   die-PFV

     my mother died.'

In the example in (13) from Tarahumara (Uto-Aztecan), the moment when John went to the bedroom happened after he finished eating. <mark>The perfective marker</mark> suffixed to the verbal root *suini* 'to finish' of the *mapua'rí* 'when' clause encodes the completion of the first event while the perfective marker suffixed to the verbal root *simi* 'to go' encodes the second event.

Tarahumara (Estrada-Fernández and Villalpando-Quiñónez, 2015: 6)

(13) [**mapu-a'rí**   suini-**ri**   ko'á],

       SUB-SIM   finish-PFV   eat.NMLZ

       'When (he) finished eating,

       Juán   ku-simí-**ri**   échi   kuárto-chi

       John   REP-go-PFV   DET   room-LOC

       John went to the bedroom.'

2.2.1.2.2 Subsequence: Cause/reason

Subsequent events that express a logical relation of cause/reason are highly systematically associated with the above morphosyntactic properties since the perfective/past markers and/or the phrasal adverb 'already' encode the completion of the event named in the adverbial clause which in turn motivates the realization of the event named in the main clause also encoded by means of same properties.

In the example in (14) from Tetum (Austronesian) the first event *kawen ti'a* ' after (we) are married' triggered the development of another event; that is, *tur iha ne'e dei* '(we) must live together'. The example in (14) lacks of an adverbial conjunction and TAM

markers which further specify the type of interclausal semantic relation and fine-grained local semantic link. However, the phrasal adverb *ti´a* 'already' encodes, in this case, a subsequent event which expresses a logical relation of cause/reason.

Tetum (Klinken, 1999: 236)

(14) [kawen **ti´a**],

marry already

'After (we) are married,

tur iha ne´e dei.

sit LOC this only

(we) must live here.'.

In (15) from Upper Necaxa Totonac (Totozoquean) the perfective marker -*l* that appears in the *akʃni* 'when' clause encodes the completion of the first event which gave rise to the other event encoded in the main clause by means of the perfective marker -*l*.

Upper Necaxa Totonac (Beck, 2004: 102)

(15) ik-te:ak-tʃinta.ma:-pí:-**l**

1SG.SBJ-path-head-kick-CAUS-extended-PFV

'I stepped on the money and flattened it

[**akʃni** te:-ta-ʃtú-**l** tsamá tumí-n].

when path-INCH-out-PFV that money

when I passed by.'

In (16) from Tagalog (Austronesian) the *nang* 'when' clause expresses the first event encoded by the perfective marker *na* prefixed to the verbal root *matay* 'to die'. In this respect, the completion of this event, his wife´s death, triggered the development of the second event, *niya hindi na siya nakagawa ng trabaho* 'he hasn´t been able to do any work, encoded by the perfective marker *na* prefixed to the verbal root *gawa* 'to make' and the phrasal adverb *na* 'already

Tagalog (Schachter and Otanes, 1972: 476)

(16) [mula   **nang**   **na**-matay   ang   awawa],

start.from   when   PFV.AFF-die   TOP   wife

'When his wife died,

niya   hindi   **na**   siya   **na**-ka-gawa   ng   trabaho.

3SG.GEN   be.not   already   3SG-TOP   PFV.AFF-?-make   GEN   work

he hasn´t been able to do any work.'

In the example (17) from Tetelcingo Nahuatl (Uto-Aztecan) the first event expressed in the *kʷɔk* 'when' clause is encoded by the past marker *o-* and the phrasal adverb *ye* 'already'. These morphosyntactic properties shed light on the completion of this event. Moreover, the realization of the second event is encoded by the past marker *-o*.

Tetelcingo Nahuatl (Tuggy, 1979: 131)

(17)   [kʷɔk   ye   o-tla-nieš],

       when   already   PST-UNSPEC:OBJ-appear:PFV

       'When it dawned,

       o-mo-kec.

       PST-REFL-stand:PFV

       he got up.'

2.2.1.3 Simultaneity

Simultaneity holds for a temporal fine-grained local semantic link in which two actions or events are fully or partially happening at the same time. According to Thompson and Longacre (1985:188-189) there are two strategies that encode simultaneous events. The first strategy is an adverbial conjunction with a simultaneous meaning similar to the English adverbial conjunction 'while'. The second strategy is the use of specific TAM markers, such as the imperfective; that is, continuative, durative, habitual, iterative and progressive aspect. However, there seem to be more strategies encoding simultaneity.

In (18) two actions are happening at the same time. In this respect, their leaving and talking occurred in the same period of time. The example in (18) from Luiseño (Uto-Aztecan) lacks ~~of~~ an adverbial conjunction which further specifies the fine-grained local semantic of simultaneity. However, the phrasal adverb *pitowli* 'yet', the durative *-wu-* and the past marker *ŋee-* encode a simultaneous event.

Luiseño (Langacker, 1970: 192)

(18) čaam=čam=il   **ŋee**-ŋi

we=we=PST   PST-leave

'We left,

[**pitowli**   teetila-**wu**-t-um].

yet   talk-DUR-ABS-PL

still talking.'

In a similar fashion, in the example in (19) from Savosavo (Papuan) the rooster´s crowing expressed by the adverbial clause and the scraping of the coconuts expressed by the main clause happen at the same time. The phrasal adverb *ka* 'already' encodes such simultaneous event.

Savosavo (Wegener, 2012: 274)

(19) [kokoroko=na   ngia],

chicken=NOM   cry.SIM

'As the rooster crowed,

ze   **ka**   gholigholi tete-ghu=e   lo   tada=gha=na.

3PL.GEN   already   scrape   balance-NMLZ=EMPH   DET.PL   man=PL=no

they already scraped (coconuts), the men.'

44

As mentioned above, the second strategy that encodes simultaneous events is specific TAM markers, such as imperfective markers. This strategy is attested in the world´s languages. For instance, in the examples (20) from Tokelau (Polynesian) and (21) from Warihio (Uto-Aztecan), the adverbial conjunction further reinforces the fine-grained local semantic already encoded by means of an imperfective marker.

In the example in (20) the event named by the *kafai* 'when' clause, *e tunu* 'it is cooked', happens within the same time frame as the event named in the main clause; that is, *e puha ki luga te ahu o te atu* 'the smoke from the skipjack rises up'. Both events are ongoing processes which are encoded by the imperfective marker *e*.

Tokelau (Murik-Vonen, 1994: 374)

(20)	**e**	puha	ki	luga	te	ahu	o	te	atu
	IPFV	rise	PREP	up	ART	smoke	PREP	ART	skipjack

'The smoke from the skipjack rises up

	[**kafai**	**e**	tunu].
	when	IPFV	cook

when it is cooked.'

In a similar fashion, in (21) two events happen at the same time. In this example, Peter´s leaving and Mary´s arrival happen simultaneously. The *amurí* 'when' clause depicts the period of time in which Peter was leaving. This ongoing process is encoded by the imperfective marker *yói* suffixed to the verbal root *simi* 'to go'. Moreover, Mary´s arrival,

expressed in the main clause by the perfective marker *ré* suffixed to the verbal root *asi-* 'to arrive' depicts the period of time overlapping with Peter´s leaving.

Warihio (Félix, 2005: 283)

(21) María   asi-ré

      Mary   arrive-PFV

      'Mary arrived

      [**amurí**   Pedro   simi-**yói**].

      when   Peter   go-IPFV

      when Peter was leaving.'

However, there are languages which <mark>only</mark> make use of less-explicit strategies in order to encode simultaneous events. In the examples in (22) and (23), imperfective markers are the exclusive signal of a simultaneous event.

In the example in (22) from Wolof (Niger-Congo), *maa ngiy génn* 'I´m going out' and *yow yaa ngiy dugg* 'you, you are coming in' happen simultaneously. Both events are ongoing processes encoded by the imperfective marker *ngiy*. In a similar fashion, the example in (23) from Cavineña (Pano-Tacanan) expresses a simultaneous event. In (23) *apupuya=ju* 'it was getting dark' and *judirukware* 'I arrived' occurred simultaneously. These ongoing processes are encoded by the imperfective marker *ya* suffixed to the verbal root *apupu* 'darken' and the remote past marker *kware* suffixed to the verbal root *diru* 'to go'.

Wolof (Robert, 2010: 481)

(22) maa **ngiy** génn,

PRES.1SG IPFV exit

'I am going out

[yow, yaa **ngiy** dugg].

2SG.SBJ PRES.2SG IPFV enter

(whereas) you, you are coming in.'

Cavineña (Guillaume, 2008: 121)

(23) chamakama [apupu-**ya**=ju],

finally darken-IPFV=DS

'Finally, when it was getting dark,

ju-diru-**kware**.

be-go-REM.PST

I arrived.'

2.2.2 Conditional clauses

Diessel (2005) states that conditional clauses are hypothetical constructions that are commonly used to make a prediction about some future event. Givón (1990: 829) proposes that conditional clauses may be characterized by the following formal devices:

(i)   Modal verbs.

(ii)   Future tense markers.

(iii)   Imperative markers.

Conditional clauses are highly systematically associated with these formal devices since they show different degrees of doubt about the potential truthfulness of the conditional event.

One may approach the grammar and typological diversity of conditional clauses in (at least) two distinct ways. One may elect to follow Wierzbicka´s (1997) approach and define conditional clauses based on the existence of two discrete semantic concepts which are human universals; that is, factuality and counter-factuality. Alternatively, one may follow the approach outlined in Comrie (1986), who explains that conditional clauses in the world´s languages express different degrees of hypotheticality or fine-grained local semantic links; that is, different degrees of likelihood of truth-values by means of (i) explicit morphosyntactic properties or (ii) inferences from other knowledge sources. The analysis of conditional clauses in this chapter follows the second approach.

Comrie (p.c) mentions that conditional clauses must be addressed in terms of hypotheticality as a continuum rather than the binary distinction of factuality vs. counter-factuality for the reason that the world´s languages mark off different degrees of hypotheticality by the two strategies mentioned above. Comrie (1986: 88) defines hypotheticality as the degree of probability of realization of the situations encoded in the conditional.

On the one hand, there are languages which have various morphosyntactic means to mark off different degrees of hypotheticality. This seems to be the case of Mekeo language (Austronesian).

Jones (1998) explains that when the adverbial conjunction *aisama* is used along with the future prefix *a-*, the degree of hypotheticality is very low. Consider the example in (24a). Moreover, when the adverbial conjunction *koà* 'if' is used along with *aisama* or specific TAM markers, the degree of hypotheticality varies. For instance, the example in (24b) is encoded by means of both *koà* 'if' and *aisama*. In this case, the degree of hypotheticality is very high. On the other hand, as can be observed in (24c) and (24d), when *koà* 'if' appears with different TAM markers, the degree of hypotheticality varies.

East Mekeo dialect (Jones 1998: 513)

(24) a. [isa   **a**-ke-mai   **aisa-ma**],

3   FUT-3PL.SBJ-come   time-INT

'If/when they come,

lau   **a**-la-lao.

1SG.SBJ   FUT-1SG.SBJ-go

I will go.'

East Mekeo dialect (Jones 1998: 516)

b. [oi   **a**-ŋo-lao   **koà**   **aisa-ma**],

    2SG.SBJ   FUT-2SG.SBJ-go   if   time-INT

    'If you were to go,

    lau   isava   **a**-la-lao.

    1SG.SBJ   also   FUT-1SG.SBJ-go

    I would go too.'

East Mekeo dialect (Jones 1998: 515)

c. [isa   **a**-ŋe-lao   **koà**],

    3   FUT-3SG.SBJ-go   if

    'If she should go,

    lau   isava   **a**-la-lao.

    1SG.SBJ   also   FUT-1SG.SBJ-go

    I would go too.'

d. [isa   **afe**-lao   **koà**],

    3   HYP.3SG-SBJ-go   if

    'If she went,

    lau   isava   **afa**-lao.

    1SG.SBJ   also   FUT-1SG.SBJ-go

    I might also go.'

On the other hand, there are languages in which the degree of hypotheticality is inferred from other knowledge sources. As can be observed in the example in (25) from Mangap-Mbula language (Austronesian), both the conditional and main clause are deprived of TAM markers and other less-explicit strategies. Thus, according to Bugenhagen (1995: 277) the degree of hypotheticality is inferred from the context.

Mangap-Mbula (Bugenhagen 1995: 277)

(25) [**sombe**   ti-posop   uraata],

     If   3PL.SBJ-finish   work

     'If they had finished work.

     so   aŋ-giimi   zin.

     then   1SG.SBJ-buy   3PL-ACC

     I would have paid them.'

2.2.3 Concessive conditionals

Haspelmath and König (1998) note that concessive conditionals are a hybrid since they share semantic and morphosyntactic properties of both concessive and conditionals clauses at the same time and thus are sometimes grouped with the former and sometimes with the latter. In this respect, concessive conditionals are conditionals since they show the same combinations of TAM markers that appear in conditionals and express a conditional relationship between the adverbial and main clause. On the other hand, concessive conditionals are concessive for the reason that they include an unfavorable condition or circumstance in the adverbial clause related to the main clause. Thus, with this in mind,

Haspelmath and König (1998) propose specific fine-grained local semantic links of concessive conditionals. Consider the following:

(26)   a. **Scalar concessive conditionals**

Even if we do not get any financial support, we will go ahead with our project.

b. **Alternative concessive conditionals**

Whether we get financial support or not, we will go ahead with our project.

c. **Universal concessive conditionals**

No matter how much financial support we get, we will go ahead with our project.

In Scalar Concessive Conditionals (SCCs), as can be observed in (26a), the adverbial clause is characterized as the extreme value for the condition in question. Haspelmath and König (1998: 584) mention that there are two main structural types of SCCs in European languages: (i) SCCs that consist of a conditional clause plus a scalar additive focus particle (even) and (ii) SCCs marked by a subordinator that also marks concessive clauses.

In Alternative Concessive Conditionals (ACCs), as in (26b), the choice between two alternative situations is presented as irrelevant to the main clause. Haspelmath and König (1998: 584) note that there are five main structural types of ACCs in European languages: (i) ACCs based on conditionals ('if…..or if…..'), (ii) ACCs based on embedded interrogatives ('whether…..or…..'), (iii) ACCs marked as subjunctive/optative ('be it…..or be it…..'), (iv) ACCs marker by '(you) want' or '(if) you want…..(if) you want…..' and (v) expression of irrelevance in the main clause.

Finally, Universal Concessive Conditionals (UCCs), as in (26c), involve a quantificational force which results from the interaction of the indifference marker and the wh-expression. Thus, there is a free choice from any number of conditions as irrelevant to the main clause. UCCs show great formal diversity in the languages of Europe. However, according to Haspelmath and König (1998: 604) "there is one formal element that is shared by virtually all types of UCCs in the languages of Europe; that is, the parameter that is presented as irrelevant for the validity of the consequent is expressed as an interrogative pronoun, or at least as a pronoun based on an interrogative pronoun".

2.2.4 Cause/reason clauses

Givón (2001: 335) observes that there is no morphosyntactic distinction between causal and reason clauses in most languages. That is, languages use the very same formal properties, such as past and perfective marking to encode these interclausal semantic relations since the cause/reason clause encodes the circumstances which led to the realization of another event.

Givón (2001) explains, however, that there is a remarkable semantic difference between these interclausal semantic relations. On the one hand, causal clauses are a sub-type of reason clauses. The author explains that prototypically causal clauses involve external motivation. That is, these external factors lead the agent to act or cause a state to become realized. On the contrary, reason clauses involve internal motivations, i.e. either a speaker or a human referent has specific reasons for acting, speaking or thinking in a particular way. Givón (2001:355) proposes the following fine-grained local semantic links:

Table 6. Fine-grained local semantic links of cause/reason clauses

Fine-grained local semantic link	Adverbial clause	Main clause
Agentive external cause for the event.	*Because he bumped me,*	I dropped the glass.
Non-agentive external cause for the event.	*Because it was freezing,*	the water pipes broke.
Eventive external reason for the action.	*Because she showed up there,*	I stopped running.
Non-eventive external reason for the action.	*Because it was cold,*	I put on my coat.
Eventive internal reason for the action.	*Because my leg began to hurt,*	I stopped running.
Non-eventive internal reason for the action.	*Because it was boring,*	I left.

2.2.4.1 Agentive external cause for the event

In (27) the agentive external cause for the event 'I shot him' is encoded in the because-clause. Moreover, the result (state to become realized) 'I shot him' is encoded in the main clause.

(27)   [Because I shot him], he is dead.

2.2.4.2 Non-agentive external cause for the event

In the example in (28), the because-clause encodes the circumstances which led to the realization of another event; that is, the non-agentive external cause for the event 'the storm was violent'. On the other hand, the main clause encodes the result (state to become realized); that is, 'a lot of buildings were destroyed'.

(28)   Because the storm was violent, a lot of buildings were destroyed.

2.2.4.3 Eventive external reason for the action

In the example (29) from North Puebla Nahuatl (Uto-Aztecan) the *san* 'just' clause encodes the eventive external reason for the action *san ohkonon titlayi´ke ika in pulke* 'just in the way we drink pulque' which in turn motivated the realization of another event; that is, the result encoded in the main clause *molwi tečtla´iltia* 'he disgusts us so much'.

North Puebla Nahuatl (Brockway, 1979: 188)

(29)   bweno   molwi   teč-tla´il-ti-a

well   much   1PL.OBJ-disgust-CAUS-PRES

'Well, he disgusts us so much

[**san**   o-hkonon   ti-tlayi-´ke   ika   in   pulke].

just   DIST-thus   1PL.SBJ-drink-PL   INSTR   ART   pulque

just in the way we drink pulque.'

2.2.4.4 Non-eventive external reason for action

In (30) the main clause encodes the result 'I wore a short sleeveless garment' whose realization was motivated by the non-eventive external reason for the action expressed in the because-clause (it was really hot).

(30) [Because it was really hot], I wore a short sleeveless garment.

2.2.4.5 Eventive internal reason for action

In the example in (31) the *bʷe´ituk* 'because' clause encodes the completion of the first event which in turn motivated the development of the other event encoded in adjacent main clause by the perfective marker *-k* suffixed to the verbal root *biča* 'to see'.

Yaqui (Lindenfeld, 1973: 84)

(31) pahko-ta-ne   **kaa**   biča-**k**

      ceremony-ACC-1SG.SBJ   NEG   see-PFV

      'I didn´t see the ceremony

      [**bʷe´ituk**   ne   ko´okʷe].

      because   1SG.SBJ   sick

      because I am sick.'

2.2.4.6 Non-eventive internal reason for action

In the example in (32) from Pima Bajo (Uto-Aztecan) the main clause encodes the result *im am himia hɨdol* '(he) won´t go alone'. The realization of this event was motivated by the non-eventive internal reason for the action expressed in the *porke* 'because' clause.

Pima Bajo (Estrada Fernández, 2008: 11)

(32) im   am   him-ia   hɨdol   [**porke**   doad-ik].

      NEG   LOC   go-POT   alone   because   fear-ST

      '(He) won't go alone because (he) is afraid.'

2.2.5 Concessive clauses

Givón (2001: 336) defines concessive clauses as those involving a presupposed contrast or counter-expectancy. The adverbial clause sets the grounds for the counter-expectation, while the main clause encodes the unexpected or less-likely event or state.

In the example (33) from Kashmiri (Indo-Aryan) the adverbial clause *agarici sɔ setha: əmi:r* 'although she is very rich' sets the grounds for the counter-expectation. On the other hand, the main clause sheds light on the less-likely event; that is, *cha to:ti cha kanju:s* 'she is still miser'.

Kashmiri (Wali and Koul, 1997: 75)

(33)   [**agarici**   sɔ   setha: əmi:r],

       although   3SG.SBJ   very   rich

       'Although she is very rich,

       cha   **to:ti**   cha   kanju:s.

       is   still   is   miser

       still she is miser.'

König (1988) explains that when using a concessive construction, the speaker is committed to the truth of both clauses '*p*' and '*q*' and asserts these two propositions against the background of an assumption that the two types of situations '*p*' and '*q*' are incompatible.

In (34) the implicit assumption, encoded in this example, is as follows: if someone hits ~~hard~~ someone else's face, he/she normally complains about it. The implicit assumption is based on the expected causal relationship between hitting ~~hard~~ his face and complaining about it, which in this case is frustrated.

(34)   Although I hit ~~hard~~ his face, he did not complain about it.

König (1988) explains that not all languages have concessive conjunctions. Thus, many world's languages use the conjunction 'but' in order to encode concessive relations. In similar lines of thought, according to Malchukov (2004) the conjunction 'but' <mark>tends to</mark> encode a concessive interclausal semantic relation. Consider the following examples:

In (35), it would not be expected that John had not assisted to school since he was sick. Thus, the fact that John was sick sets the grounds for the counter-expectation Moreover, the fact that John went to school represents the unexpected or less-likely event.

(35)   [John is sick], but he went to school.

The analysis proposed by Malchukov (2004) seems not to be restricted to Indo-European languages. In the example (36), from Bilua (Papuan), the conjunction *melai* 'but' encodes a concessive relation rather than an adversative relation of semantic opposition. The first clause *matu raisiraisi kota eva* 'it became late evening' sets the grounds for the counter-expectation and the *melai* 'but' clause encodes the less-likely event *nioqavo mama ta pui obaroa* 'their father didn´t arrive'.

Bilua (Obata, 2003: 237)

(36)   matu   raisi-raisi   ko-ta   ev-a

        very   RDP-evening   3SG.FEM-sit   become-PRES

        '(~~Even though~~) it became late evening,

        [**melai** nioqa-vo   mama   ta   pui   o-baro-a].

        but   3DU-3SG.MASC   father   TOP   NEG   3SG.MASC-arrive-PRES

        but their father didn´t arrive.'

Sometimes concessive clauses appear with two connectives; one adverbial conjunction in the adverbial clause, and one coordinating conjunction in the main clause.

This linguistic phenomenon is described by Bertinetto and Ciucci (2012) as para-hypotaxis.[10] The authors propose the following scheme:

(37)   SUB + dependent-clause + COORD + main-clause.

The following data show para-hypotactic constructions. In (38) from Pima Bajo (Uto-Aztecan), the *timosa* 'even though' clause and the *per* 'but' clause (main clause) are incompatible. The implicit assumption in (38) is as follows: if someone is small, someone is not expected to be brave. The implicit assumption is based on the expected causal relationship between being small and not being brave, which in this case is frustrated.

Pima Bajo (Estrada Fernández, 2011)

(38)	**timosa**	aan	si'	li'id,
	even though	1SG.SBJ	INT	small

'Even though I am small,

	per	aan	si'	bagar-d-ai.
	but	1SG.SBJ	INT	brave-APPL-POT

but I can be very brave.'

---

[10] The term para-hypotaxis is used by Romance linguists to refer to sentences containing a proleptic dependent clause with the main clause introduced by a coordinative conjunction. According to Bertinetto and Ciucci (2012) this term was traditionally considered as an idiosyncratic feature of Old Romance languages. However, para-hypotaxis has been recently discovered in different modern, genetically unrelated languages, such as Swahili and languages from the Zamucoan family.

In the example (39) from Classical Nahuatl (Uto-Aztecan), the pressuposed contrast is encoded in the following fashion. In (39) the *maanel* 'although' clause sets the grounds for the counter-expectation. Moreover, in the *sannel* 'nevertheless' clause (main clause) is encoded the unexpected or less-likely event.

Classical Nahuatl (Garibay, 1961: 135)

(39) **maanel**   močin-tin   tee-te-ɬe´   oo-mi-e´,

       although   all-PL   RDP-god-PL   PFV-die-PL

       'Although all the gods died,

       sannel   a´moo   wel   lik   oliin.

       nevertheless NEG   can   thus   move

       nevertheless it couldn´t move.'

In (40) from Toqabaqita (Austronesian), the *dooqanitaa* 'though' clause sets the grounds for the counter-expectation. Moreover, in the *mena* 'nevertheless' clause (main clause) is encoded the unexpected or less-likely event or state. It would be expected that they had not worked because of the hot weather. The implicit assumption in (40) is as follows: if the sun is very strong, someone is not expected to work. The implicit assumption is based on the expected causal relationship between the sun being very strong and not being able to work, which in this case is frustrated.

Toqabaqita (Lichtenberk, 2008: 1130)

(40)	**dooqanitaa**	fanua	ka	thato	fii-fii,
	though	place	3SG.SEQ	be.sunny	RDP-be.painful

'Even though the sun was very strong,

	mena	kera	raa	bo-naqa.
	nevertheless	3PL.NFUT	work	INT-INT

nevertheless they worked.'

One fact that I have ignored so far in the discussion is the formal encoding of concessive clauses. As was shown in the examples above, concessive constructions are encoded by means of different formal properties. These constructions are highly systematically associated with the above devices for the reason that the semantic content of '*p*' (adverbial clause) and '*q*' (main clause) are incompatible. However, speakers will use particularly negative markers in order to express such incompatibility between '*p*' (adverbial clause) and '*q*' (main clause).

2.2.6 Purpose clauses

Purpose clauses signal the purpose of the agent for acting as he did in the event coded by the main clause, thus the main clause is typically active/agentive (Givón, 2001:337) as in:

(41) a. He went out [to look for his boy].

b. [To go there], you must take the train.

c. [In order to finish on time], she had to cut corners.

Some of the most important properties of purpose clauses are the following that I illustrate in the example in (42) from Mayogo (Niger-Congo). In this construction: (i) the subjects of both the main clause and purpose clause are coreferent, (ii) the purpose clause is deprived of TAM markers, (iii) the adverbial clause signals the purpose of the agent (so that you arrive quickly) and (iv) the event of the purpose clause is unrealized. These four properties seem to be the cornerstone of purpose clauses.

Mayogo (Sawka, 2001: 152)

(42) Yi   pʊ   lɨ   kpadjɨ inde [**amda** yi   kolo   magala].

2PL   FUT.follow on   road   this   so.that 2PL   arrive quick

'You should follow this road so that you arrive quickly.'

It is important to bear in mind that most of the time both same-subject and different-subject purpose clauses will be deprived of TAM markers. This seems to support Schmidtke-Bode´s proposal (2009: 43) who notes that purpose clauses have no time reference in relation to the main clause for the reason that there is no strict communicative need to overtly specify the temporal location of the purposive situation. In this respect, Givón (1990) mentions that the more predictable a clausal feature is *vis-à-vis* its immediate inter-clausal context, the more likely it is to be left unmarked or less finite.

2.2.7 Result clauses

Diessel (2001) mentions that result clauses describe a consequence or conclusion derived from the main clause. Dixon (2009) explains that the result clause describes a natural consequence of what is described by the main clause. In this sense, the main clause is the

lead-up (what led to the consequence), while the result clause expresses the natural or unintended consequence.

Result clauses are encoded particularly by perfective markers since the main clause encodes what led to the realization of another event (*lead-up*) by means of a perfective marker and the adverbial clause encodes a natural consequence of what is described by the main clause by means of another perfective marker.

In the example in (43) the *lead-up* is encoded in the first clause (the terrorists divulged their plans) and the natural consequence is encoded in the second clause (the police arrested the terrorists).

(43)   The terrorists divulged their plans [and accordingly the police arrested them].

2.2.8 Spatial clauses

Spatial clauses are those constructions which describe the place or direction where the event encoded in the main clause takes place. Some of the morphosyntactic properties that this interclausal semantic relation shows are:

(i)   Locative markers.

(ii)   Directional markers.

(iii)   Adverbs with locative semantics.

Spatial clauses are highly systematically associated with these formal devices due to the fact that these adverbial clauses underscore the locative or directional goal of motion; that is, they specific the location or direction where the action described by the verb in the main clause takes place. Let´s explore some examples.

In the following constructions from Bauré (Arawakan) and Cofán (Chibchan), spatial clauses are encoded by means of locative markers. In (44) the locative marker *-yi-* specifies the place where the action encoded in the main clause takes place. In a similar fashion, the example in (45) encodes ~~such~~ spatial relation by means of the locative marker *ni*.

Bauré (Danielsen, 2010: 88)

(44)   vi=ejko-wo   [to   vi=kopsipo-**yi**-wo].

       1PL=wash-IPFV   ART   1PL=step-LOC-IPFV

       'We clean where we step (the floor).'

Cofán (Fischer and Van Lier, 2010: 239)

(45)   jingesu   ja-ye [tsa a'i   cerveza=ma chava-en-je]=**ni**.

       let's.go   ana   person   beer=ACC   by-CAUS-IPFV=LOC

       'Let's go to where that man is selling beer.'

In the following example (46) from Yurakaré, a directional marker appears in the spatial clause. In this construction the directional marker *chi* describes the direction where the action encoded in main clause takes place.

Yurakaré (Van Gijn, 2010: 182)

(46)   bata-tu   [li-sawata-tu=t=**chi**   shinama].

       go.INT-1PL.SBJ   DEL-work-1PL.SBJ=DE=DIR before

       'We go to where we worked before.'

Spatial clauses may occur with a subordinator or an adverbial conjunction and a locative or directional marker at the same time. However, in such instances Nefedov (2015:

209) explains that the subordinator or adverbial conjunction is redundantly used to mark spatial clauses since they already contain a locative or directional marker which explicitly sheds light on the type of interclausal semantic relation.

In the example in (47) from Tohono O'odham (Uto-Aztecan) the locative marker *am* specifies the location where the action described by the verb in the main clause takes place. Note that the subordinator *ma-* is redundantly used since the locative marker *am* already encodes the spatial relation. It is thought-provoking to observe that *ama´i*, an adverb with locative semantics, appears in the main clause. Nefedov (2015: 207) mentions that sometimes main clauses of spatial clauses require the presence of a correlative marker with locative semantics since they contribute to the inherent semantics.

Tohono O'odham (Saxton, 1982: 257)

(47)	t	wo	čikp-x	g	huan	**ama´i**
	TNS	FUT	work-PFV	ART	Juan	there

'Juan will work there

	[**ma**-t	g	husi	**am**	wo	čikp-x].
	SUB-TNS	ART	José	LOC	FUT	work-PFV

where José will work.

To sum up, in this chapter I outlined the theoretical background of adverbial clauses. More specifically, I explained why specific interclausal semantic relations and fine-grained local semantic links are highly systematically associated with specific formal devices. In what follows, I will take as point of departure the ideas developed in this chapter in order to explore adverbial clauses in VHN.

CHAPTER 3

ADVERBIAL CLAUSES IN VERACRUZ HUASTECA NAHUATL

Adverbial clauses in VHN encode a variety of interclausal semantic relations, including temporal, conditional, concessive conditional, cause/reason, concessive, purpose, result and spatial relations. Such general interclausal semantic relations may also show specific fine-grained local semantic links; that is, each interclausal semantic relation may in turn be decomposed further into finer levels. For instance, temporal clauses in VHN convey smaller individual fine-grained links, such as precedence, subsequence, simultaneity and point of coincidence. In a similar fashion, conditional clauses show specific subtleties, such as high likelihood, low likelihood, very low likelihood and high improbability.

For reasons of space and clarity, the scope of our discussion will be limited in many important respects. To keep the scope of the discussion manageable, this chapter will focus on just one single goal, which is to fully characterize both the semantic and morphosyntactic properties of adverbial clauses in VHN following the ideas proposed by Givón (2001) and Hetterle (2015). In doing so, I strongly argue that both specific interclausal semantic relations and fine-grained local semantic links are highly systematically associated with specific formal devices. Furthermore, I explain the general principles that shape and constrain such correlations.

The attractiveness of this proposal lies in the fact that few studies have focused on the correlation between the function and form of adverbial clauses. I thus offer a fine-grained proposal that attempts to address adverbial clauses in VHN in functional-communicative terms.

67

Before proceeding to the main body of the chapter, a few words about the analysis, and the broad assumptions which underlie it, are in order.

As mentioned in the last chapter, I define adverbial clauses as the link between two propositions in which the dependent one encodes various adverbial meanings, such as time, condition or cause/reason and adds additional information to the other proposition (the main one). This functional definition enable us to capture the typological diversity of explicit and less-explicit strategies that adverbial clauses make use of. With this in mind, some of the prototypical formal devices that can encode explicitly and less-explicitly the type of interclausal semantic relation and fine-grained local semantic link in VHN are the following:

(i)   TAM markers in the adverbial clause and the main clause.

(ii)   An adverbial conjunction.

(iii)   Phrasal adverbs in the adverbial and/or main clause.

(iv)   Free pronouns.

(v)   Negative markers.

(vi)   Directional markers.

It is important to bear in mind that Mithun (1984) explains that adverbial clauses make use of a large range of formal properties. Thus, an adverbial clause can appear without an adverbial conjunction or subordinator which serves to specify the nature of the abstract semantic relation; that is, the adverbial relation may reside in the combination of specific TAM values or other less-explicit strategies.

As we shall see further below, specific interclausal semantic relations and fine-grained local semantic links of adverbial clauses in VHN are highly systematically associated with the morphosyntactic properties introduced above. I propose that in VHN, such formal heterogeneity is not fortuitous, but rather is functionally motivated by the interclausal semantic relation and the specific fine-grained local semantic link held by the adverbial clause and its adjacent main clause. My central theoretical claim is that the occurrence of 'X' properties in 'Y' construction is highly motivated by the interclausal semantic relation and the fine-grained local semantic link. In other words, formal constraints on the range of morphosyntactic properties within the adverbial clause and the main clause are governed by the nature of the semantic relation held between the two propositions.

Having established this general framework, the layout of the rest of this chapter will proceed as follows. Section 3.1 is concerned with temporal clauses. In section 3.2, I discuss some important aspects of conditional clauses. In section 3.3 I explain the empirical facts of concessive conditionals. In section 3.4, I explain the way in which cause/reason clauses behave. Section 3.5 is devoted to concessive clauses and section 3.6 to purpose clauses. Section 3.7 addresses result clauses. Finally, section 3.8 examines spatial clauses.

3.1 Temporal clauses

Temporal clauses add additional temporal information to the proposition of the main clause encoding a temporal fine-grained local semantic link, such as precedence, subsequence, simultaneity and point of coincidence. In VHN, temporal clauses show the following morphosyntactic properties:

(i)   The presence of either the clause-initial adverbial conjunction *kemah* 'when' or *achtoui* 'before'.

(ii)   Certain TAM markers, such as the imperfective markers *-yaya* and *-ya* and the perfective marker *-ki*.

(iii)   The (optional) presence of the phrasal adverbs *ayokana* 'not yet' or *ya* 'already'.

The temporal fine-grained local semantic links that will be discussed in what follows are precedence, subsequence, simultaneity and point of coincidence.

3.1.1 Precedence

Precedence holds for a temporal fine-grained local semantic link in which before one event occurs, another event takes place. As will be observed, precedence is highly systematically associated with the following formal devices:

(i)   The phrasal adverb *ayokana* 'not yet'.

(ii)   The presence of either *kemah* 'when' or *achtoui* 'before'.

(iii)   Certain TAM markers, such as the imperfective marker *-yaya* and the perfective marker *-ki*.

The motivation of such a correlation stems from the fact that events of precedence are either events that have not taken place yet or ongoing processes. On the one hand, when expressing the non-realization of a situation that may come to hold in the future, the adverbial clause makes use of both the negative phrasal adverb *ayokana* 'not yet' and the imperfective marker *-yaya*. On the other hand, when expressing an ongoing process, the adverbial clause only makes use of the imperfective marker *-yaya*. It is important to bear in

70

mind that the main clause will always encode, by means of the perfective marker *-ki*, the event which occurred before the event encoded in the adverbial clause, as will be shown in the examples below.

VHN has both an unmarked temporal connective that marks precedence, *kemah* 'when', and a specific connective that marks precedence, *achtoui* 'before'.

On the one hand, when the clause-initial adverbial conjunction *kemah* 'when' is used to encode precedence, such unmarked encoding strategy must be accompanied by other formal properties. As an illustration, consider the following examples.

In (1) the woman took the man to the doctor before he got sick. The situation that may come to hold in the future; that is, the condition of the man not yet getting sick, is encoded in the *kemah* 'when' clause by means of the phrasal adverb *ayokana* 'not yet' and the imperfective marker *-yaya* suffixed to the verbal root *kokoa* 'to get sick'. Moreover, in the main clause, the event which occurred before the man had gotten sick, the act of the woman taking him to the doctor, is encoded.

(1) [**kemah**   tlaca-tl   **ayokana**   mo-kokoa-**yaya**],

     when   man-ABS   not.yet   REFL-get.sick-IPFV

'When the man had not yet gotten sick,

     akia-**ki**   sihua-tl   konepatini.

     take-PFV   woman-ABS   doctor

the woman took him to the doctor.'

In a similar fashion in (2), the fine-grained local semantic link between the *kemah* 'when' clause and its adjacent main clause is that of precedence. The posterior event, that of the subject of the adverbial clause leaving, is encoded in the *kemah* 'when' clause by means of the imperfective marker *-yaya*, suffixed to the verbal root *yohui* 'to go'. This marker encodes an ongoing process. The adjacent main clause, on the other hand, encodes the completion of the event which happened before he left, the act of him eating tamales.

(2)   [**kemah**   yohui-**yaya**],

        when   go-IPFV

        'When he was leaving,

        kin-kuah-**ki**   tama-li.

        3PL.OBJ-eat-PFV   tamal-ABS

        he ate the tamales.'

On the other hand, the clause-initial adverbial conjunction *achtoiu* 'before' explicitly encodes a temporal relation of precedence. Although such a temporal fine-grained link can also be inferred from other features of the two clauses.

For instance, in (3) the temporal relation, encoded in the adverbial clause, signals that before the woman finished sweeping her house, there was another event that had already occurred. In the main clause, on the other hand, the event which happened before the woman finished sweeping her house, is encoded; that is, the act of her getting sick. In this example, the ongoing process, that of the subject being in the state of not yet having finished the sweeping, is encoded in the *achtoui* 'before' clause by means of the imperfective marker *-yaya*, suffixed to both the verbal root *tlami* 'to finish' and the verbal root *tlachpa* 'to sweep'.

72

Moreover, the completion of the other event is encoded in the main clause by the perfective marker -*ki*, suffixed to the verbal root *koko* 'to get sick'.

(3) [**achtoui** sihua-tl tlami-**yaya** tlachpa-**yaya** i-chan],

before woman-ABS finish-IPFV sweep-IPFV 3SG.POSS-house

'Before the woman finished sweeping her house,

mo-koko-**ki**.

REFL-get.sick-PFV

she got sick.'

In (4), the *achtoui* 'before' clause signals that before the subject arrived at his house, there was another event that had already occurred. In (4), the *achtoui* 'before' clause encodes a situation that may come to hold in the future by the phrasal adverb *ayokana* 'not yet' and the imperfective marker -*yaya*, suffixed to the verbal root *asi* 'to arrive'. In the second clause the completion of an event is encoded by means of the perfective marker -*ki*, suffixed to the verbal root *coch* 'to sleep'.

(4) [**achtoiu** **ayokana** asi-**yaya** i-chan],

before not.yet arrive-IPFV 3SG.POSS-house

'Before he arrived at his house,

ti-coch-**ki**.

2SG.SBJ-sleep-PFV

you were already sleeping.'

73

3.1.2 Subsequence

Subsequence holds for a temporal fine-grained local semantic link in which 'After X has happened, then Y' occurs. There seem to be two possible instances of subsequent events. First, we have those instances which express a logical relation of chronological succession; that is, the main clause event occurs after the event encoded in the adverbial clause has occurred, without any causal relationship existing between the two events. Second, we have those instances which express not only chronological subsequence, but also a logical relation of cause/reason; that is, the completion of the first event, encoded in the adverbial clause, motivates the realization of the second event, encoded in the main clause. In what follows, it will be shown that VHN encodes instances of both the first and second type of subsequence.

3.1.2.1 Subsequence: Chronological order

Subsequent events that merely show a relationship of chronological order show the following morphosyntactic properties:

(i)   The adverbial conjunction *kemah* 'when'.

(ii)   The perfective marker *-ki*.

Events showing this type of subsequence are highly systematically associated with these formal devices for the reason that they encode the sequential order in which the events happen; that is, the development of events in chronological succession.

In the example in (5) the arrangement of events following one after another is encoded by means of the perfective marker *-ki* suffixed to the verbal root *kuah* 'to eat' in

the *kemah* 'when' clause and the perfective marker *-ki* suffixed to the verbal root *yohui* 'to go' in the main clause. It is important to bear in mind that the events in (5) are merely arranged in the order of occurrence and do not show a causal relation.

(5) [**kemah**   kin-kuah-**ki**   tama-li],

     when   3PL.OBJ-eat-PFV   tamal-ABS

     'When he ate the tamales,

     yohui-**ki**.

     go-PFV

     he left.'

In a similar fashion, the example in (6) expresses a logical relation of simple chronological succession. Such an arrangement is encoded by means of the perfective marker *-ki* suffixed to the verbal root *mach* 'to study' in the *kemah* 'when' clause and the perfective marker *-ki* suffixed to the verbal root *chihua* 'to do' in the main clause.

(6) [**kemah**   okichpil   mo-mach-ti-**ki**],

     when   boy   REFL-study-CAUS-PFV

     'When the boy studied,

     ki-chihua-**ki**   teki-tl.

     3SG.OBJ-do-PFV   work-ABS

     he did his homework.'

75

3.1.2.2 Subsequence: Cause/reason

Subsequent events that express a logical relation of cause/reason have the following morphosyntactic properties:

(i)   The adverbial conjunction *kemah* 'when'.

(ii)   The perfective marker *-ki*.

(iii)   The phrasal adverb *ya* 'already'.

Subsequent events of this type are highly systematically associated with these formal devices since the perfective marker *-ki* and the phrasal adverb *ya* 'already' encode the completion of the event named in the adverbial clause which in turn motivates the realization of the event named in the main clause also encoded by means of the perfective marker *-ki*.

As can be observed in the example in (7), the *kemah* 'when' clause encodes the completion of the first event, that of the subject of the adverbial clause getting angry, by means of the phrasal adverb *ya* 'already' and the perfective marker *-ki* suffixed to the verbal root *kualan* 'to get angry' which gave rise to the other event encoded in the main clause, that of the subject of the main clause running.

(7) [**kemah**   **ya**   kualan-**ki**],

when   already   get.angry-PFV

'When she got angry,

hual-motlalo-**k**.

DIR-run-PFV

 he ran.'

The example in (8) is also a subsequent event which <mark>expresses</mark> a logical relation of cause/reason. The fact that the woman walked all day long triggered the second event; the act of her getting tired. As can be observed in this example, in the *kemah* 'when' clause, the phrasal adverb *ya* 'already' and the perfective marker *-ki* suffixed to the verbal root *nehnen* 'to walk' encode the completion of the first event which in turn motivated the development of the other event encoded in adjacent main clause by the perfective marker *-k* suffixed to the verbal root *siah* 'to get tired'.

(8) [**kemah**   toahui   **ya**   neh-nen-**ki**   semilhui-tl],

when   woman   already   RDP-walk-PFV   all.day.long-ABS

'When the woman walked all day long,

siah-**k**.

get.tired-PFV

she got tired.'

77

One fact that I have ignored so far in the discussion is the following. As one can observe upon comparing (5) and (6), on the one hand, with (7) and (8), on the other hand, the phrasal adverb *ya* 'already' only appears in subsequent events which express a logical relation of cause/reason rather than just a strict sense of chronological order. This empirical fact seems to suggest that the phrasal adverb *ya* 'already' is a formal device that encodes cause/reason relations. As we shall see further below, this hypothesis is corroborated by the fact that this formal device also occurs in cause/reason clauses introduced by the clause-initial adverbial conjunction *pampa* 'because'.

3.1.3 Simultaneity

Simultaneity holds for a temporal fine-grained local semantic link in which two actions or events are fully or partially happening at the same time. Simultaneous events are characterized by:

(i)   The adverbial conjunction *kemah* 'when'.

(ii)   The imperfective marker -*ya*.

(iii)   The (optional) presence of *huaksa* 'suddenly'.

This subtlety is characterized by these formal devices for the reason that the imperfective marker -*ya* encodes the ongoing process named in the adverbial clause which fully or partially overlaps with the other event encoded in the main clause by means of the imperfective marker -*ya*.

In (9), the adverbial clause depicts the period of time in which the individuals referred to in the adverbial clause were sleeping. This ongoing process is encoded by the imperfective marker -*ya* suffixed to the verbal root *coch* 'to sleep'. As for the main clause,

78

the period of time when the subject of that clause was running, expressed by the imperfective marker -*ya*, overlaps with the moment when the individuals in the adverbial clause were sleeping.

(9)   [**kemah**   coch-ke-**ya**],

        when   sleep-PL-IPFV

        'When they were sleeping,

        hual-motlalo-**ya**.

        DIR-run-IPFV

        he was running.'

In a similar fashion, the example in (10) also expresses a simultaneous event. In this construction the event named in the *kemah* 'when' clause, *tlankeyah tlakuahyah* 'they were still eating', occurs within the same time frame as the event named in the adjacent main clause; that is, *okichpil kikuahya sopelik* 'the boy was eating candy'. Both events are ongoing processes encoded by the imperfective marker -*ya*. In the *kemah* 'when' clause the ongoing process is encoded by the imperfective marker -*ya*, suffixed to both the verbal roots *tlanke* 'to finish' and the verbal root *kuah* 'to eat'. Similarly, in the adjacent main clause the imperfective marker -*ya*, suffixed to the verbal root *kuah* 'to eat' expresses the other ongoing process.

(10) [**kemah** tlanke-**ya**-h tla-kuah-**ya**-h],

when finish-IPFV-PL UNSPEC.OBJ-eat-IPFV-PL

'When they were still eating,

okichpil ki-kuah-**ya** sopelik.

boy 3SG.OBJ-eat-IPFV candy

the boy was eating a candy.'

Similarly the adverbial clause in (11) encodes the event which operates in the same temporal reference ~~than~~ the adjacent main clause. The coming back of the subject of the adverbial clause and the screaming of the subject of the main clause happened at the same time. This is encoded by the imperfective marker -*ya* suffixed to the verbal root *asiki* 'to come back' in the adverbial clause and the verbal root *kuatsah* 'to scream' in the main clause. As can be observed in this example, the phrasal adverb *huaksa* 'suddenly' appears in the main clause. When this formal device occurs in simultaneous events, the logical relation is that of an unexpected simultaneous event.

(11) [**kemah** asiki-**ya**],

when come.back-IPFV

'When he was coming back,

huaksa kuatsah-**ya**.

suddenly scream-IPFV

she was screaming.'

3.1.4 Point of coincidence

Point of coincidence holds for a temporal fine-grained local semantic link expressing two events or circumstances which have a non-causal connection, but unlike subsequence, this non-causal connection gives rise to surprising or non-expected events. Point of coincidence events are characterized by:

(i)   The adverbial conjunction *kemah* 'when'.

(ii)   The (obligatory) presence of free pronouns.

(iii) The perfective marker -*ki*.

In (12), the *kemah* 'when' clause encodes the completion of the first event by means of the perfective marker -*ki* suffixed to the verbal root *asi* 'to arrive'. Moreover, the adjacent main clause encodes the other event by means of the perfective marker -*k* suffixed to the verbal root *yolpaki* 'to feel happy'. In this construction, it would not be expected that after the subject of the adverbial clause arrived at her house the subject of the main clause (suddenly) felt happy. Thus, both events display a non-causal connection.

(12) [**kemah**   asi-**ki**   i-chan],

       when   arrive-PFV   3SG.POSS-house

       'When she arrived at her house,

       ya   yol-paki-**k**.

       3SG.SBJ   heart-cheerful-PFV

       he (suddenly) felt happy.'

In (13), the realization of the second event, encoded in the main clause by means of the perfective marker -*k* suffixed to the verbal root *teki* 'to work'; that is, *ya tekitiki* 'she (suddenly) worked more', happened after the realization of the event encoded in *kemah* 'when' clause; that is, *mayanaki* 'she felt hungry'. In this example, after she felt hungry and suddenly worked more is a non-expected event.

(13) **[kemah**   mayana-**ki**],

when   be.hungry-PFV

'When she felt hungry,

ya   teki-ti-**k**].

3SG.SBJ   work-CAUS-PFV

she (suddenly) worked more.'

Similarly in (14) the second event *ya siahki* 'he (suddenly) got tired' occurred after the completion of the first event *iako imila* 'he went to his milpa'. In this example, the fact that he went to his milpa and then suddenly got tired is a non-expected result.

(14) [**kemah**   ia-**ko**   i-mila],

when   go-DIR   3SG.POSS-field

'When he went to his milpa,

ya   siah-**ki**.

3SG.SBJ   get.tired-PFV

he (suddenly) got tired.'

As explained before, point of coincidence is a non-causal connection which gives rise to surprising or non-expected events. However, a puzzle emerges from the examination of the above examples. The formal make-up of point of coincidence events and subsequent events that express a mere chronological order is the same. This raises the following question: are there any clues that can help us draw a line between these two events? The answer to this puzzle seems to be the following. All of the examples encoding point of coincidence that I elicited allow the occurrence of free pronouns while subsequent events that express a mere chronological order do not. Thus, it seems that free pronouns are miratives; that is, grammatical elements responsible for boosting surprise, unexpectedness or suddenness. As we shall see further below, free pronouns behave in the same way in different interclausal semantic relations and fine-grained local semantic links in VHN. This empirical fact therefore seems to support my hypothesis.[11]

3.2 Conditional clauses

Diessel (2005) states that conditional clauses are hypothetical constructions that are commonly used to make a prediction about some future event. One may approach the grammar and typological diversity of conditional clauses in (at least) two distinct ways.

On the one hand, one may elect to follow Wierzbicka´s (1997) approach and define conditional clauses based on the existence of two discrete semantic concepts which are human universals, namely, factuality and counterfactuality. On the other hand, one may follow the approach outlined in Comrie (1986), who explains that conditional clauses in the world´s languages express different degrees of hypotheticality; that is, different degrees of

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[11] DeLancey (1997) explains that mirativity is a cross-linguistic category that is primarily about surprise and senses related to surprise such as suddenness and unexpectedness, among others.

likelihood of truth-values by means of (i) explicit morphosyntactic properties or (ii) inferences from other knowledge sources. The analysis of conditional clauses in this chapter follows the second approach.[12]

VHN shows different degrees of hypotheticality (fine-grained local semantic links) by means of the following explicit morphosyntactic mechanisms:

(i)   The clause-initial adverbial conjunction *tlan* 'if'.

(ii)   The phrasal adverb *temachtli* 'surely'.

(iii)   The future morpheme -*s*.

(iv)   The conditional marker -*skia*.

(v)   The intensifier *nel* 'very'.

(vi)   The conditional marker -*toskia*.

(vii)   The past perfect marker -*toya*.

Conditional clauses are highly systematically associated with the above formal devices since they encode hypothetical events which show different degrees of likelihood with respect to truth-values. It is important to mention that the clause-initial adverbial conjunction *tlan* 'if' does not express different degrees of hypotheticality by itself but rather it is the fact that this conjunction is accompanied by other less-explicit strategies what sheds light on such different degrees of likelihood with respect to truth values. Let us explore some examples.

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[12] Givón (1995) and Podlesskaya (2001) explain that conditional clauses must be addressed from an epistemic scale that represents the speaker´s subjective assessment of the reality of a given situation.

84

3.2.1 High likelihood

The examples in (15) and (16) introduced by the clause-initial adverbial conjunction *tlan* 'if' express high likelihood. These constructions show the lowest degree of doubt about the potential truthfulness of the conditional event by means of the future morpheme -*s* suffixed to the verbal root of the adverbial clause and the main clause and by the phrasal adverb *temachtli* 'surely'.

(15) [**tlan**   nech-ita-**s**],

  if   1SG.OBJ-see-FUT

  'If he sees me,

  temachtli   nech-pinahtih-**s**.

  surely   1SG.OBJ-taunt-FUT

  he surely will make fun of me.'

(16) [**tlan**   toahui   neh-nen-**s**   semilhui-tl]],

  if   woman   RDP-walk-FUT   all.day.long-ABS

  'If the woman walks all day long,

  temachtli   siah-**s**.

  surely   get.tired-FUT

  she surely will get tired.'

3.2.2 Low likelikehood

The following constructions encode instances in which the pending truth-values show low likelihood. The examples in (17) and (18) introduced by the clause-initial adverbial conjunction *tlan* 'if' express such low likelihood by means of the conditional marker *-skia* suffixed to the verbal root of the adverbial clause and the main clause.

(17) [**tlan**   ya   teki-ti-**skia**],

      if   3SG.SBJ   work-CAUS-COND

      'If he worked more,

      achiyok   ti-k-pia-h-**skia**   tomin.

      more   2PL.SBJ-3SG.OBJ-have-PL-COND   money

      we would have more money.'

(18) [**tlan**   ni-eli-**skia**   telpoka-tl]],

      if   1SG.SBJ-be-COND   young-ABS

      'If I were young again,

      ni-teki-ti-**skia**.

      1SG.SBJ-work-CAUS-COND

      I would work more.'

3.2.3 Very low likelihood

The potential truthfulness of the following examples is that of very low likelihood. The examples in (19) and (20) show a high degree of doubt about the potential truthfulness of the conditional event by means of clause-initial adverbial conjunction *tlan* 'if', the conditional marker *-skia* suffixed to the verbal root of the adverbial clause and the main clause and the intensifier *nel* 'very', which is a way of increasing hypotheticality.

(19) [**tlan**   **nel**   nech-ita-**skia**   ohli-pan],

       if   very   1SG.OBJ-see-COND   street-LOC

       'If he saw me in the street,

       nech-pinahtih-**skia**.

       1SG.OBJ-taunt-COND

       he would make fun of me.'

(20) [**tlan**   sihuapil   **nel**   siaui-**skia**],

       if   girl   very   get.tired-COND

       'If the girl got tired,

       ti-te-huika-**skia**.

       2SG.SBJ-UNSPEC.OBJ-take-COND

       you would take her home.'

3.2.4 High improbability

High improbability is a conditional fine-grained local semantic link that seems to match ~~with~~ what Givón (2001: 332) describes as counter-fact conditionals. The author explains that counter-fact conditionals involve propositions that could, would or should have been true if other propositions were also true. But since those other propositions turn out to be false, the conditionally-marked proposition is also false.

Counter-fact conditionals cross-linguistically tend to be marked in two basic ways: (i) combinations of two semantically conflicting verbal inflections (Givón, 2001), such as the prototypically realis past, perfective or perfect and the prototypically irrealis future, subjunctive, conditional or modal and (ii) dedicated morphology (Comrie, 1986). VHN encodes counter-factuality by means of a third strategy; that is, dedicated morphology along with past tense.[13]

The examples in (21) and (22) show the highest degree of doubt about the potential truthfulness of the conditional event by means of -*toskia* suffixed to the verbal root of the adverbial clause and the main clause plus the intensifier *nel* 'very' that appears in both clauses.

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[13] Comrie (p.c.) explains that the use of back-shifting into past as a way of increasing hypotheticality is well attested cross-linguistically, e.g. the use of the pluperfect in English for at least virtually counterfactual conditionals. So it is not a surprise that a language with dedicated morphology combines with past tense morphology to increase hypotheticality.

(21) [**tlan**   **nel**   kin-kuah-**toskia**   tama-li],

      if   very   3PL.OBJ-eat-COND.PST   tamal-ABS

      'If he had eaten tamales,

      amo   **nel**   mayana-**toskia**.

      NEG   very   be.hungry-COND.PST

      he wouldn´t have been hungry.'

(22) [**tlan** okichpil   **nel**   ki-mah-**toskia**   tlen   melauak],

      if   boy   very   3SG.OBJ-know-COND.PST   SUB   truth

      'If the boy had known the truth,

      nel   ach-miki-**toskia**.

      very   NEG-die-COND.PST

      he wouldn´t have died.'

It is important to mention that VHN has other structural means to express counter-factuality. Consider the following examples.

In (23) the highest degree of doubt about the potential truthfulness of the conditional event is encoded by means of -*toskia* and *pero* 'but'. It is important to mention that this construction does not allow the occurrence of the intensifier *nel* 'very'. However, it encodes the same conditional fine-grained local semantic link as the example in (22) despite being marked by different formal devices.

(23) ti-ia-**toskia**   ilhui-tl

2SG.SBJ-go-COND.PST   party-ABS

you would have gone to the party.'

[**pero**   ti-siaui-**toskia**].

but   2SG.SBJ-be.tired-COND.PST

but you were tired.'

In a similar fashion, the example in (24) shows the same degree of likelihood or hypotheticality as the examples in (22) and (23) despite being encoded by different formal devices. The counter-factual conditional in (24) shows inversion. Up to this point this is a phenomenon that has not received a great deal of attention in lesser-known languages. Iatridou and Embick (1994) mention that cross-linguistically the languages that allow conditional inversion vary as to the type of conditional in which it is allowed. However, there seems to be a stronger tendency for counter-factuals to allow inversion. The example in (24) shows the highest degree of doubt about the potential truthfulness of the conditional event by means of -*toya* and -*toskia*.

(24) [ach-ia-**toya**   okichpil   ilhui-tl]]

NEG-go-PST.PERF   boy   party-ABS

Had the boy not gone to the party.

ach-miki-**toskia**.

NEG-die-COND.PST

he wouldn´t have died.'

3.3 Concessive conditionals

Haspelmath and König (1998) mention that concessive conditionals are hybrids since they share semantic and morphosyntactic properties of both concessive and conditional clauses. Concessive conditionals are conditionals since they show the same combinations of TAM markers of conditionals and express a conditional relationship between the adverbial clause and the main clause. On the other hand, concessive conditionals are also concessive due to the fat that they include a condition or circumstance in the adverbial clause irrelevant to the result/outcome expressed in the main clause.

Concessive conditionals in VHN show a number of remarkable and puzzling properties whose analysis afford us new insights on the cross-linguistic behavior of this complex construction. Concessive conditionals encode different fine-grained local semantic links, such as universal, scalar, alternative and something that I call conditional-like links. In what follows, I will explain the linguistic behavior of such constructions.

3.3.1 Universal concessive conditionals

Haspelmath and König (1998) explain that UCCs involve a quantificational force which results from the interaction of an indifference marker and a wh-expression. Thus, there is a free choice from any number of conditions as irrelevant to the result/outcome denoted by the main clause: if (*a* or *b* or *c* or *d* or *e* or *f* or *g* of *h*) then *q*. Consider the following example:

(25)   [No matter how much he ran], he was tired.

In (25) the adverbial clause encodes the quantificational force: if (*a* or *b* or *c* or *d* or *e* or *f* or *g* of *h*) then *q*. As can be observed in table 1, the number of free choices that can be inferred from the example in (25) can be divided into those instances expressing a quantificational force type A (conditional) and those instances expressing a quantificational force type B (concessive). On the one hand, when we infer a free choice from the quantificational force type A (conditional), such as 'if he ran 30 miles', the expected result is that 'he was tired' since he ran a long distance. On the other hand, when we infer a free choice from the quantificational force type B (concessive), such as 'if he ran 10 meters', the unexpected or less-likely event is that 'he was tired' since he did not run a long distance. However, the example in (25) expresses both types of quantificational force at the same time; that is, quantificational force type A (conditional) and quantificational force type B (concessive). Thus, this is why UCCs are a hybrid.

Table 1. Quantificational force of the UCC in (25)

Quantificational force type A (conditional)	- If he ran a marathon, - If he ran 30 miles, - If he ran 50 miles,	he was tired. (expected result)
Quantificational force type B (concessive)	- If he ran 10 meters, - If he ran 50 meters, - If he ran 70 meters,	he was tired. (unexpected event or less-likely event)

UCCs in VHN are encoded by the following morphosyntactic properties:

(i)   The clause-initial adverbial conjunctions *zan katlia achonka cualantli* 'no matter how much' and *zan katlia* 'whatever'.

(ii)   The perfective marker *-ki*, the imperfective markers *-ya* and *-yaya* and the future morpheme *-s*.

(iii)   The (obligatory) presence of free pronouns in *zan katlia achonka cualantli* 'no matter how much' clauses.

There are two types of UCCs in VHN. The first type is introduced by the conjunction *zan katlia achonka cualantli* 'no matter how much' and the second type is introduced by the conjunction *zan katlia* 'whatever'. Complicating the picture further, both constructions seem to be used in different ways.

The theoretical claim of my proposal is based on the fact that speakers may use, on the one hand, the first type of UCCs, *zan katlia achonka cualantli* 'no matter how much' clauses, as a quantificational force type B which express a concessive relation; that is, unexpected events rather than expected results, while speakers may use the second type of UCCs, *zan katlia* 'whatever' clauses, as a quantificational force type A which express conditional relations; that is, expected results rather than unexpected events. Thus, since these constructions are not a hybrid, they are concessive conditional-like constructions. I explain this theoretical claim in the following two sections.

3.3.1.1 *Zan katlia achonka cualantli* **'no matter how much' clauses: Quantificational force type B (concessive)**

Zan katlia achonka cualantli 'no matter how much' clauses are characterized by certain mechanisms, such as free pronouns, the perfective marker *-ki* and the imperfective markers *-ya* and *-yaya*. Consider the following examples.

In (26) the *zan katlia achonka cualantli* 'no matter how much' clause encodes a situation in which the number of inferred choices belong to the quantificational force type B (concessive), that is, if the person in question slept eight hours, ten hours, twelve hours or fourteen hours, the unexpected or less-likely event is that the person in question was tired since he slept a lot of time. Consider the table in 2.

(26) [**zan** **katlia ach-onka cualantli**   **ya**   cochi-**k**],

only   which NEG-there problem   3SG.SBJ   sleep-PFV

'No matter how much he slept,

ya   siaui-**ya**.

3SG.SBJ   be.tired-IPFV

he was tired.'

Table 2. Constraints of the quantificational force of the example in (26)

Not possible numbers of choices	Quantificational force type A (conditional)	-If he slept 45 minutes, -If he slept onehour, -If he slept two hours, -If he slept three hours,	he was tired. (expected result)
Possible number of choices	Quantificational force type B (concessive)	-If he slept eight hours, -If he slept ten hours, -If he slept twelve hours, -If he slept fourteen hours,	he was tired. (unexpected or less-likely event)

In a similar fashion, in the example in (27) the *zan katlia achonka cualantli* 'no matter how much' clause encodes a situation in which the number of inferred choices belong to the quantificational force type B (concessive); that is, if the person in question had a dollar, five dollars, ten dollars or twenty dollars, the unexpected or less-likely event is that the person in question was happy. Consider the table in 3.

(27)   [**zan   katlia   ach-onka   cualantli   ya   ki-pia-yaya   tomin**],

only   which   NEG-there   problem   3SG.SBJ   3SG.OBJ-have-IPFV   money

'No matter how much money he had,

ya   yol-paki-**yaya**.

3SG.SBJ   heart-cheerful-IPFV

he was happy.'

Table 3. Constraints of the quantificational force of the example in (27)

Not possible numbers of choices	Quantificational force type A (conditional)	-If he had a million dollars, -If he had two million dollars, -If he had three million dollars, -If he had four million dollars,	he was happy. (expected result)
Possible number of choices	Quantificational force type B (concessive)	-If he had a dollar, -If he had five dollars, -If he had ten dollars, -If he had twenty dollars,	he was happy. (unexpected or less-likely event)

It is important to bear in mind that the number of choices that belong to the quantificational force type A (conditional) are discarded in *zan katlia achonka cualantli* 'no matter how much' clauses, as shown in the tables above. As could be observed in the examples above, *zan katlia achonka cualantli* 'no matter how much' clauses always must appear with free pronouns. Thus, I propose that free pronouns are responsible for boosting surprise, unexpectedness or suddenness. As will be observed below, *zan katlia* 'whatever' clauses do not appear with free pronouns.

3.3.1.2 *Zan katlia* 'whatever' clauses: Quantificational force type A (conditional)

Zan katlia 'whatever' clauses are characterized by certain TAM markers, such as the future morpheme -*s*.

In (28) the *zan katlia* 'whatever' clause encodes a situation in which the number of inferred choices belong to quantificational force type A (conditional); that is, if the person

in question worked for twenty minutes, one hour or two hours, the expected result is that the other person in question will not pay him enough money. Consider the table in 4.

(28) [**zan   katlia**   ti-k-chihua-**s**],

only   which   2SG.SBJ-3SG.OBJ-do-FUT

'Whatever you do,

amo   mits-tlachtlahuia-**s**   kuali.

NEG   2SG.OBJ-pay-FUT   good

he will not pay you enough.'

Table 4. Constraints of the quantificational force in the example in (28)

Possible numbers of choices	Quantificational force type A (conditional)	-If you worked for 20 minutes, -If you worked for 1 hour, -If you worked for 2 hours,	he will not pay you enough. (expected result)
Not possible number of choices	Quantificational force type B (concessive)	-If you worked for 8 hours, -If you worked for 10 hours, -If you worked for 12 hours,	he will not pay you enough. (unexpected or less-likely event)

In the same manner, in the example in (29) the *zan katlia* 'whatever' clause encodes a situation in which the number of inferred choices belong to the quantificational force type A (conditional); that is, if the subject in question ate a grape, a cherry or five beans, the expected result is that the subject in question will be hungry. Consider the table in 5.

(29) [**zan   katlia**   ti-kuah-**s**],

only   which   2SG.SBJ-eat-FUT

'Whatever you eat,

ti-mayana-**s**.

2SG.SBJ-be.hungry-FUT

you will be hungry.'

Table 5. Constraints of the quantificational force in the example in (29)

Possible numbers of choices	**Quantificational force type A (conditional)**	-If he eats a grape, -If he eats a cherry, -If he eats five beans,	you will be hungry. (expected result)
Not possible number of choices	**Quantificational force type B (concessive)**	-If he eats ten tacos, -If he eats two cakes, -If he eats three pizzas,	you will be hungry. (unexpected or less-likely event)

It is important to bear in mind that the number of choices that belong to the quantificational force type B (concessive) are discarded in *zan katlia* 'whatever' clauses, as shown in the tables above. As could be observed in the examples above, unlike *zan katlia achonka cualantli* 'no matter how much' clauses, *zan katlia* 'whatever' clauses do not appear with free pronouns responsible for boosting surprise, unexpectedness or suddenness.

The formal make-up of both *zan katlia achonka cualantli* 'no matter how much' clauses and *zan katlia* 'whatever' clauses seems to be that of prototypical concessive conditionals. However, the above empirical facts strongly suggest that both constructions are not concessive conditionals since they involve a specific type of quantificational force (either concessive or conditional) rather than involving two types of quantificational force at the same time, as protypical concessive conditionals do.

The following empirical facts seem to support my theoretical claim. On the one hand, those instances expressed by *zan katlia achonka cualantli* 'no matter how much' are encoded by free pronouns which boost surprise or unexpectedness and prototypical TAM markers of concessive clauses, as we shall see further below; that is, the perfective marker *-ki* and the imperfective markers *-ya* and *-yaya*. On the other hand, those instances expressed by *zan katlia* 'whatever' are neither encoded by free pronouns nor prototypical TAM markers of concessive clauses but rather *zan katlia* 'whatever' clauses appear with the prototypical TAM markers of conditional clauses; that is, the future morpheme *-s*.

It is not clear to me why speakers would prefer using *zan katlia achonka cualantli* 'no matter how much' clauses rather than prototypical concessive clauses encoded by *pannimman* 'even though' or *maske* 'even though' or why speakers would prefer using *zan katlia* 'whatever' clauses rather than prototypical conditional *tlan* 'if' clauses. Since the picture is far from clear, this theoretical puzzle will remain open for further research.

3.3.2 Scalar concessive conditionals

Haspelmath and König (1998) mention that the adverbial clause in SCCs is characterized as the extreme value for the condition in question. Consider the example in (30)

(30)   [Even if you work all night long], you will not earn a lot of money.

In (30) the extreme value 'working all night long' is encoded in the adverbial clause introduced by 'even if'. In this example, however, there seems to be a scale in which other values expressing different degrees of both unexpectedness and improbableness can be inferred. Since unexpectedness and improbableness are key components of concessive and conditionals clauses respectively, this theoretical fact corroborates the idea that SCCs are a hybrid.

SCCs in VHN are encoded by the following morphosyntactic properties:

(i)   The clause-initial adverbial conjunction *yonke* 'even if'.

(ii)   The future morpheme -*s*.

Haspelmath and König (1998: 584) mention that there are two main structural types of SCCs in European languages: (i) SCCs that consist of a conditional clause plus a scalar additive focus particle (even) and (ii) SCCs marked by a subordinator that also marks concessive clauses. SCCs in VHN are encoded by means of the conjunction *yonke* 'even if'. Consider the following example.

In the example in (31) the SCC is encoded by the adverbial conjunction *yonke* 'even if' and the future morpheme -*s* suffixed to the verbal root of the adverbial clause and the verbal root of the main clause. The extreme value *titlachpanas calihtic* 'you clean the house' is encoded in the adverbial clause. It is important to bear in mind that other values expressing different degrees of both unexpectedness and improbableness can be inferred

from the example in (31). In other words, the fact that the *yonke* 'even if' clause is asserted for the extreme case implies that it also holds for the less extreme cases.

(31) [**yonke**   ti-tlachpana-**s**   cal-ihtic],

even.if   2SG.SBJ-clean-FUT   house-inside

'Even if you clean the house,

amo   ti-ia-**s**   ilhui-tl.

NEG   2SG.SBJ-go-FUT   party-ABS

you won´t go to the party.'

3.3.3 Alternative concessive conditionals

Haspelmath and König (1998) explain that in ACCs, a choice between two alternative situations is presented as irrelevant to the main clause. Haspelmath and König (1998: 584) note that there are five main structural types of ACCs in European languages: (i) ACCs based on conditionals ('if…..or if…..'), (ii) ACCs based on embedded interrogatives ('whether…..or…..'), (iii) ACCs marked as subjunctive/optative ('be it…..or be it…..'), (iv) ACCs marker by '(you) want' or '(if) you want…..(if) you want…..' and (v) expression of irrelevance in the main clause.

VHN encodes ACCs by juxtaposing two conditional *tlan* 'if' clauses and the future morpheme -*s*, as can be observed in (32). In this example, a choice between two alternative situations is presented as irrelevant to result/outcome encoded in the main clause; that is, it

does not matter whether the boy eats candy or not, the result encoded in the main clause will be the same; the subject in question will run all day long.

(32) [**tlan** ki-kuah-**s**   **tlan** amo ki-kuah-**s**   sopelik],

if   3SG.OBJ-eat-FUT   if   NEG 3SG.OBJ-eat-FUT   candy

'Whether the boy eats candy or not,

semilhui-tl   mo-tlalo-**s**.

all.day.long-ABS   REFL-run-FUT

he will run all day long.'

3.3.4 Conditional-like constructions

Conditional-like is a term that I use to describe any construction whose formal make-up is prototypical of conditional clauses but encode a concessive relation.[14] Conditional-like constructions in VHN are highly systematically associated with the following morphosyntactic properties:

(i)   *Tlan* 'if' and *tleka* 'unknown reason' and *tlan* 'if' and *kenke para* 'for what'.

(ii)   The (obligatory) presence of free pronouns in *tlan* 'if' conditional-like constructions that occur with *tleka* 'unknown reason'

(iii) The future morpheme -*s*.

(iv)   The negative marker *amo*.

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[14] Many thanks to Zarina for suggesting the term conditional-like.

I argue that there seems to be two types of conditional-like constructions: first, the *tlan* 'if' conditional-like construction that occurs with *tleka* 'unknown reason', and second, the *tlan* 'if' conditional-like construction that occurs with *kenke para* 'for what'. A puzzle emerges from this examination: despite their external formal resemblance to conditional clauses, their function is to express a concessive relation. However, while the two constructions appear to behave identically in nearly all contexts, they are different with respect the degree of unexpectedness they express. In what follows, I discuss their behavior.

3.3.3.1 *Tlan* 'if' conditional-like constructions that occur with *tleka* 'unknown reason'

The following examples in (33) and (34) encode a relation of unexpectedness between two events. On the one hand, the *tlan* 'if' clause sets the grounds for the counter-expectation. On the other hand, the *tleka* 'unknown reason' clause encodes the unexpected or less-likely event. When speakers use this type of construction the degree of unexpectedness with regards to the outcome is high; that is, the speaker seems to find very surprising the realization of the event encoded in the *tleka* 'unknown reason' clause. Note that free pronouns boost surprise or unexpectedness.

(33) **tleka**   **ta**   ti-choca-**s**

   unknown.reason 2SG.SBJ 2SG.SBJ-cry-FUT

   'I don´t know why you are crying

   [tlan **amo** **na** ni-mits-maki-li-**s**].

   if   NEG 1SG.SBJ 1SG.SBJ-2SG.OBJ-hit-APPL-FUT

   if I am not hitting you.'

(34) **tleka**   **na**   ni-malti-**s**

  unknown.reason   1SG.SBJ   1SG.SBJ-take.shower-FUT

  'I don´t know why I am taking a shower

  [**tlan**   **amo**   **na**   ni-pats-miki].

  if   NEG   1SG.SBJ   1SG.SBJ-hot-die

  if it is not hot.'

3.3.3.2 *Tlan* conditional-like constructions that occur with *kenke para* 'for what'

In a similar fashion, the examples in (35) and (36) express counter-expectancy. The *tlan* 'if'
clause supplies the grounds for the counter-expectation while the *kenke para* 'for what'
clause supplies the unexpected or less-likely event. When speakers use this type of
construction, the degree of unexpectedness is very low; that is, the speaker seems to find
virtually unsurprising the realization of the event encoded in the *kenke para* 'for what'
clause. It is important to mention that *tlan* conditional-like constructions that occur with
kenke para 'for what' do not appear with free pronouns.

(35) **kenke**   **para**   ni-tla-kuah-**s**

  what   for   1SG.SBJ-UNSPEC.OBJ-eat-FUT

  'I don´t know why I am eating it

  [**tlan**   **amo**   ni-mayana].

  if   NEG   1SG.SBJ-be.hungry

  if I am not hungry.'

104

(36)   **kenke**   **para**   ni-atli-**s**

what   for   1SG.SBJ-drink.water-FUT

'I don´t know why I am drinking water

[**tlan**   **amo**   ni-amiqui].

if   NEG   1SG.SBJ-be.thirsty

if I am not thirsty.'

3.4 Cause/reason clauses

Givón (2001: 335) observes that there is no morphosyntactic distinction between cause and reason clauses in the world´s languages. That is, languages use the very same formal mechanisms, such as past and perfective marking, to encode these interclausal semantic relations.

Cause/reason clauses in VHN seem to present counterevidence to such cross-linguistic behavior since these interclausal semantic relations, in this Uto-Aztecan language, use different morphosyntactic encoding.

3.4.1 Causal clauses

Givón (2001) explains that prototypically causal clauses involve an external motivation. That is, these external factors lead the agent to act or cause a state to become realized.

Causal clauses are characterized by the following properties:

(i)   The clause-initial adverbial conjunctions *pampa* 'because' and *yekah* 'consequently'.

(ii)   The phrasal adverb *ya* 'already'.

(iii)   The perfective marker *-ki*.

Causal clauses are highly systematically associated with the above formal devices since the *pampa* 'because' clause encodes the circumstances (external motivation) which led to the realization of another event by means of the perfective marker *-ki*. On the other hand, the result (state to become realized) is encoded in the main clause, introduced by the *yekah* 'consequently' conjunction.

I will discuss in what follows two causal fine-grained local semantic links: (i) agentive external cause for the event and (ii) non-agentive external cause for the event.

3.4.1.1 Agentive external cause for the event

In (37) the agentive external cause for the event *nimitsmakilik* 'I hit you' is encoded in the *pampa* 'because' clause by means of the perfective marker *-k* and the phrasal adverb *ya* 'already'. Moreover, the result (state to become to realized) *tichocak* 'you cried' is encoded in the *yekah* 'consequently' clause by means of the perfective marker *-k* suffixed to the verbal root *choca* 'to cry'.

(37) **[pampa**   **ya**   ni-mits-maki-li-**k**],

      because   already   1SG.SBJ-2SG.OBJ-hit-APPL-PFV

      'Because I hit you,

      yekah   ti-choca-**k**.

      consequently   2SG.SBJ-cry-PFV

      you cried.'

3.4.1.2 Non-agentive external cause for the event

 In a similar fashion, the causal construction in (38) is encoded by means of the same formal devices. In this example, the *pampa* 'because' clause encodes the circumstances which led to the realization of another event; in this case, the non-agentive external cause for the event *tlauitl kuali tlauel* 'the rain was heavy'. On the other hand, the *yekah* 'consequently' clause encodes the result (state to become realized) *kipolok chiapopojtli* 'it destroyed the street' by the perfective marker *-k* suffixed to the verbal root *polo* 'to destroy'.

(38)   [**pampa**   **ya**   tlaui-tl   kuali   tlauel],

       because   already   rain-ABS   good   extremely

       'Because the rain was heavy,

       yekah   ki-polo-**k**   chiapopoj-tli.

       consequently   3SG.OBJ-destroy-PFV street-ABS

       it destroyed the street.'

3.4.2 Reason clauses

Givón (2001) mentions that reason clauses involve internal motivations, i.e. either a speaker or a human referent has specific reasons for acting, speaking or thinking in a particular way.

     Reason clauses show the following properties:

(i)   The clause-initial adverbial conjunction *pampa* 'because'.

(ii)   The perfective marker *-ki*.

(iii)   The phrasal adverbs *ya* 'already' and *san* 'just'.

107

Reason clauses occur with such formal properties since the *pampa* 'because' clause encodes, by means of the phrasal adverb *san* 'just' and the perfective marker *-ki*, the circumstances (internal motivation) which led to the realization of another event On the other hand, the result is encoded in the main clause by the phrasal adverb *ya* 'already' and the perfective marker *-ki*.

The following reason fine-grained local semantic links will be discussed: (i) eventive external reason for the action, (ii) non-eventive external reason for the action, (iii) eventive internal reason for the action and (iv) non-eventive internal reason for the action.

3.4.2.1 Eventive external reason for the action

In (39) the *pampa* 'because' clause encodes the eventive external reason for the action (he arrived at his house) by means of the phrasal adverb *san* 'just' and the perfective marker *-ki*. Moreover, the main clause encodes the result (I left) by the phrasal adverb *ya* 'already' and the perfective marker *-ki* suffixed to the verbal root *yohui* 'to go'.

(39) [**pampa**   **san**   asi-**ki**   i-chan],

      because   just   arrive-PFV   3SG.POSS-house

      'Because he arrived at his house,

      ya   ni-yohui-**ki**.

      already   1SG.SBJ-go-PFV

      I left.'

3.4.2.2 Non-eventive external reason for the action

In (40) the main clause encodes the result *ya niyohuiki* 'I left' whose realization was motivated by the non-eventive external reason for the action expressed in the *pampa* 'because' clause.

(40) [**pampa**   **san**   tlauel   tlaseseya-**k**],

      because   just   extremely   cold-PFV

      'Because it was very cold,

      ya   ni-yohui-**ki**.

      already   1SG.SBJ-go-PFV

      I left.'

3.4.2.3 Eventive internal reason for the action

In (41) the fact that he was already too old motivated the second event; the moment when he was not able to run. As can be observed in this example, in the *pampa* 'because' clause, the phrasal adverb *san* 'just' encodes the completion of the first event which in turn motivated the development of the situation encoded in adjacent main clause by the phrasal adverb *ya* 'already' and the perfective marker *-k* suffixed to the verbal root *tlalo* 'to run'.

(41) na ayok ni-hueli-**k** **ya** ni-mo-tlalo-**k**

1SG not.anymore 1SG.SBJ-be.able.to-PFV already 1SG.SBJ-REFL-run-PFV

'I was not able to run

[**pampa** **san** na huehue-tsi].

because just 1SG.SBJ old-DIM

because I am already too old.'

3.4.2.4 Non-eventive internal reason for the action

In (42) the main clause encodes the result *ayok ya tlachihki* 'he did not do it more' by the phrasal adverb *ya* 'already' and the perfective marker *-ki* suffixed to the verbal root *chih* 'to do'. The realization of this event was motivated by the non-eventive internal reason for the action expressed in the *pampa* 'because' clause; the fact that the understood action is a sin.

(42) ayok **ya** tla-chih-**ki**

not.anymore already UNSPEC.OBJ.-do-PFV

'He did not do it anymore

[**pampa** **san** tlahtlako-li].

because just sin-ABS

because that is a sin.'

3.5 Concessive clauses

Givón (2001: 336) proposes that concessive clauses involve a presupposed contrast or counter-expectancy. In this respect, the adverbial clause sets the grounds for the counter-expectation while the main clause ~~sets~~ the unexpected or less-likely event. König (1988) explains that when using a concessive construction, the speaker is committed to the truth of both clauses '*p*' and '*q*' and asserts these two propositions against the background of an assumption that the two types of situations '*p*' and '*q*' are incompatible.

Concessive constructions in VHN are encoded by the following properties:

(i)   The conjunctions *panniman* 'even though', *maske* 'even though', *ihuan* 'and' and *pero* 'but'.

(ii)   Free pronouns.

(iii)   The future morpheme *-s*, the imperfective marker *-yaya* and the perfective marker *-ki*.

(iv)   The negative markers *ach-* and *amo*.

Concessive constructions in VHN are characterized by the above properties due to the fact that, particularly, the negative markers *ach-* and *amo* express incompatibility between '*p*' (adverbial clause) and '*q*' (main clause).

The following empirical evidence yields further support for the assumption that concessive clauses may be decomposed further into finer levels in a similar fashion to temporal, conditional, concessive conditional and cause/reason clauses.

I will provide in what follows empirical evidence that strongly supports my proposal by exploring concessive relations in VHN. As we shall see below, most

111

concessive fine-grained local semantics make use of two different structures and free pronouns to encode different degrees of unexpectedness or surprise. To the best of my knowledge, this is an exotic scenario in the world´s languages. However, it may show evidence that unexpectedness or surprise in concessive constructions should be analyzed as a continuum of situations that account for the nature of the degree of unexpectedness or surprise.

As was shown in sections 3.3.1.1, 3.3.4.1 and 3.3.4.2, VHN has other means to express concessive relations, such as *zan katlia achonka cualantli* 'no matter how much' clauses, *tlan* 'if' conditional-like constructions that occur with *tleka* 'unknown reason', and *tlan* 'if' conditional-like constructions that occur with *kenke para* 'for what'. However, I decided not to discuss such fine-grained local semantic links in this section since they can express a large range of fine-grained links rather than one particular type.

3.5.1 Expressions of irrelevance

Concessive relations that show expressions of irrelevance are those constructions in which '*p*' (the ground stated in the adverbial clause) does not matter and does not impede '*q*' (the less-likely event encoded in the main clause) from holding.

Expressions of irrelevance in VHN are encoded exclusively by means of para-hypotaxis. Recall from the last chapter, para-hypotaxis is a linguistic phenomenon described by Bertinetto and Ciucci (2012) in which concessive clauses appear with two connectives.

There are two types of para-hypotactic expressions of irrelevance in VHN: (i) *panniman* 'even though' clauses that occur with *ihuan* 'and' and (ii) *maske* 'even though'

clauses that occur with *pero* 'but'. Complicating the picture further, para-hypotactic expressions of irrelevance seem to show different degrees of unexpectedness or surprise.

3.5.1.1 *Panniman* 'even though' clauses that occur with *ihuan* 'and'

On the one hand, *panniman* 'even though' clauses that occur with *ihuan* 'and' express a high degree of unexpectedness or surprise by means of free pronouns which are responsible for boosting surprise, unexpectedness or suddenness. In the examples in (43) and (44) the *panniman* 'even though' clause provides the grounds for the counter-expectation supplied in the *ihuan* 'and' main clause.

(43) [**panniman**   **amo**   **ta**   ti-k-hualuika-**s**   tomin],

   even.though   NEG   2SG.SBJ   2SG.SBJ-3SG.OBJ-bring-FUT   money

   'Even though you will not bring money,

   ihuan   **ta**   ti-huala-**s**   mostla.

   and   2SG.SBJ   2SG.SBJ-come-FUT   tomorrow

   you will come tomorrow (to the party).'

(44) [**panniman**   **na**   **ach**-ni-ki-neki-**yaya**   ne   sihuapil],

   even.though   1SG.SBJ   NEG-1SG.SBJ-3SG.OBJ-want-IPFV   DET   girl

   'Even though I did not like that girl,

   ihuan   noca   **ya**   huala-**ki**.

   and   still   3SG.SBJ   come-PFV

   she came.'

113

3.5.1.2 *Maske* 'even though' clauses that occur with *pero* 'but'

On the other hand, *maske* 'even though' clauses that occur with *pero* 'but' show a low degree of unexpectedness or surprise. Unlike the examples in (43) and (44), the examples in (45) and (46) do not appear with free pronouns. Thus, this is why *panniman* 'even though' clauses that occur with *ihuan* 'and' express a higher degree of unexpectedness or surprise than *maske* 'even though' clauses that occur with *pero* 'but'

(45) [**maske**   kaui-tl   **ach**-kuali-**yaya**],

even.though   weather-ABS   NEG-good-IPFV

'Even though the weather wasn´t good,

pero   ti-mauilti-to-h.

but   2PL.SBJ-play-PURP-PL

you went to play.'

(46) [**maske**   tlauel   tlaseseya-**yaya**],

even.though   extremely   cold-IPFV

'Even though it was very cold,

pero   ia-**k**-e   kaltlamachtiloyan.

but   go-PFV-PL   school

they went to school.'

3.5.2 External non-agentive expressions

External non-agentive expressions are concessive events in which '*p*' (the adverbial clause) encodes an external non-agentive event and '*q*' (the main clause) encodes an uncommon instance which under normal circumstances would not hold. This fine-grained local semantic link is encoded by either *maske* 'even though' or *panniman* 'even though'. It is puzzling that *maske* 'even though' clauses express a low degree of unexpectedness or surprise as in (47) while *panniman* 'even though' clauses express a high degree of unexpectedness or surprise, as in (48). Free pronouns seem to be again responsible for boosting surprise, unexpectedness or suddenness since only *panniman* 'even though' clauses appear with free pronouns

(47) [**maske**   tlaui-tl   **amo**   kuali   tlauel],

      even.though   rain-ABS   NEG   good   extremely

      'Even though the rain was not heavy,

      ki-polo-k   chiapopoj-tli.

      3SG.OBJ-destroy-PFV   street-ABS

      it destroyed the street.'

(48)	[**panniman**	tle-tl	tlauel	chicahuak	eli-yaya],
	even.though	fire-ABS	extremely	strong	be-IPFV

'Even though the fire was really intense,

	amo	**ya**	ki-tlati	nochicahui-tl.
	NEG	3SG.SBJ	3SG.OBJ-burn	firewood-ABS

it did not burn the firewood.'

3.5.3 External agentive expressions

External agentive expressions are concessive events in which '*p*' (the adverbial clause) encodes an external agentive event and '*q*' (the main clause) encodes an uncommon instance which under normal circumstances would not hold. This finer level is encoded exclusively by coordinate constructions as can be observed in the following examples in which the speaker seems to presuppose different degrees of unexpectedness by means of free pronouns.

The example in (49) shows a high degree of unexpectedness by means of free pronouns. The first clause *nipachilia chicahuak* 'I hit him' is the external agentive event which sets the grounds for the counter-expectation and the second event encoded in the second clause *amo chocak* 'he did not cry' is the less-likely event. The implicit assumption, based on expected causal relation between hitting ~~hard~~ his face and crying, is as follows: if one hits ~~hard~~ someone else´s face, he/she normally cries. The implicit assumption in this case is frustrated.

(46) **na**   ni-pachilia   chicahuak   **ihuan amo ya**   choca-k.

1SG.SBJ   1SG.SBJ-hit   strong   and   NEG   3SG.SBJ   cry-PFV

'(Even though) I hit him and he did not cry.'

On the other hand, the example in (50) shows a low degree of unexpectedness since it is deprived of free pronouns. In (50) *nipostekili ima* 'I broke his hand' sets the grounds for the counter-expectation while *amo chocak* 'he did not cry' encodes the less-likely event. The implicit assumption is as follows: if one breaks someone else´s hand, he/she normally cries. The implicit assumption based on the expected causal relationship between breaking a hand and crying is in this case frustrated.

(50)   ni-posteki-li   i-ma   **ihuan amo**   choca-k.

1SG.SBJ-break-APPL   3SG.POSS-hand and   NEG   cry-PFV

'(Even though) I broke his hand and he did not cry.'

3.5.4 Internal non-agentive expressions

Internal non-agentive expressions are those concessive events in which '*p*' (the adverbial clause) setting the grounds for the counter-expectation is an internal non-agentive event while '*q*' (the main clause) encodes an uncommon instance which under normal circumstances would not hold.

Internal non-agentive expressions are encoded exclusively by juxtaposed clauses and *pero* 'but' clauses. However, it is interesting to note that both constructions are used by speakers in a different fashion.

3.5.4.1 Juxtaposed constructions

Juxtaposed constructions that express internal non-agentive expressions show a high degree of unexpectedness or surprise by means of free pronouns. The following example presupposes the occurrence of an event in a very unlikely situation.

In (51) '*p*' *toahui kipiayaya cancer kokolistli* '(even though) she had cancer' is an internal non-agentive event which sets the grounds for the counter-expectation while '*q*' *ya amo miki* 'she did not die' encodes the less-likely event by means of the negative marker *amo*. The assumption in (51) can be described as follows: if one has cancer, one normally dies.

(51)   [toahui   **ya**   ki-pia-yaya   cancer kokolistli],

     woman   3SG.SBJ   3SG.OBJ-have-IPFV   cancer illness

     '(Even though) she had cancer,

     ya   **amo**   miki.

     3SG.SBJ   NEG   die

     she did not die.'

3.5.4.2 *Pero* 'but' clauses

Pero 'but' clauses, on the other hand, express internal non-agentive expressions that show a low degree of unexpectedness or surprise since they are always deprived of free pronouns. In the example in (52), the first clause (the internal non-agentive event) *Juan amo mokokoayaya* 'Juan was not sick' depicts the grounds for the counter-expectation by means of the negative marker *amo* while *iaki kokohkali* 'he went to the hospital' denotes the least likely outcome of the first clause.

(52) Juan   **amo**   mo-kokoa-yaya

Juan   NEG   REFL-get.sick-IPFV

'Juan was not (really) sick

pero   ia-ki   kokoh-kali

but   go-PFV   pain-house

but he went to the hospital.'

3.6 Purpose clauses

Purpose clauses signal the purpose of the agent for acting as he does in the event encoded by the main clause; thus the main clause is typically active/agentive (Givón, 2001:337). Purpose clauses in VHN show the following morphosyntactic properties:

(i)   The clause-initial adverbial conjunctions *para* 'so as' and *para ma* 'so that'.

(ii)   The purpose marker -*ti*.

(iii)   The future morpheme -*s*.

Purpose clauses are characterized by the above formal devices since they express an event which must be unrealized at the time of the event encoded in the main clause.

Thompson and Longacre (1985: 187) explain that same-subject and different-subject purpose clauses may be encoded by different properties in the world´s languages. Purpose clauses in VHN behave in the same way, as explained below.

3.6.1 Same-subject purpose clauses

Same-subject purpose clauses are encoded by the future morpheme -*s*, the purpose marker -*ti* and the adverbial conjunction *para* 'so as'. However, the distribution of these formal devices depends on whether the same-subject purpose clause is either positive or negative.

On the one hand, when the same-subject purpose clause is positive, it is encoded by the future morpheme -*s* and the purpose marker -*ti*.

For example, in (53) the main clause expresses, by the future morpheme -*s* suffixed to the verbal root *tiki* 'to work', the means by which the agent intends to realize the purpose encoded in the purpose clause. In other words, in this construction the main participant (Juan) will work in the milpa in order to obtain the realization of a particular event (to get a lot of money).

(53) Juan   teki-ti-**s**   milan
     Juan   work-CAUS-FUT   field
     'Juan will (go to) work in the milpa

     [ki-pia-**ti**   miyac   tomin].
     3SG.OBJ-have-PURP   a.lot.of   money
     in order to have a lot of money.'

On the other hand, when the same-subject purpose clause is negative, it is encoded by the future morpheme -*s*, the negative marker *amo* and the clause-initial adverbial conjunction *para* 'so as'.

For example, in (54) the *para* 'so as' purpose clause encodes the purpose for the main clause agent's action by means of the negative marker *amo* and the purpose marker *-ti*.

(54)   amo   yoyon-paka-**s**

        NEG   clothes-wash-FUT

        'She will not wash her clothes

        para   amo   ki-mah-kahua-**ti**   atl

        so.as   NEG   3SG.OBJ-hand-throw-PURP   water

        so as not to waste water.'

3.6.2 Different-subject purpose clauses

Different-subject purpose clauses are encoded by the future morpheme *-s*, the purpose marker *-ti* and the adverbial conjunction *para ma* 'so that'. <mark>However, these constructions are encoded by means of specific properties depending on whether the different-subject purpose clause is either positive or negative.</mark>

In (55) the different-subject purpose clause is positive. In this construction, the purpose clause *para ma tlahuikati* 'so that she (the girl) will take it home' is the purpose for what the main clause agent did in the main clause, namely, *tlatlanehs ne sihuapil* 'he gave it to the girl'.

(55)   tla-tlaneh-**s**   ne   sihuapil

UNSPEC.OBJ-share-FUT   DET   girl

'He will give it to the girl

[**para   ma**   tla-huika-**ti**].

so   that   UNSPEC.OBJ-take-PURP

so that she (the girl) will take it home.'

In (56) the different-subject purpose clause is negative. In this example the situation encoded in the main clause *na nikchihuas* 'I will do it' is performed with the intention of bringing about the situation denoted by the purpose clause; that is, *para ma amo sihuapil siahui* 'so that the girl does not get tired'.

(56)   na   ni-tla-chihua-**s**

1SG.SBJ   1SG.SBJ-UNSPEC.OBJ-do-FUT

'I will do it

[**para ma   amo**   sihuapil   siahui].

so   that   NEG   girl   get.tired

so that the girl does not get tired.'

Note that both same-subject and different-subject purpose clauses in VHN are deprived of TAM markers. This seems to support Schmidtke-Bode´s proposal (2009: 43) in which purpose clauses have no time reference in relation to the main clause for the reason

122

that there is no strict communicative need to overtly specify the temporal location of the purposive situation. In this respect, Givón (1990) mentions that the more predictable a clausal feature is *vis-à-vis* its immediate inter-clausal context, the more likely it is to be left unmarked or less finite.

There are some details concerning the empirical facts of purpose clauses that still remain to be addressed.

For instance, in different-subject purpose clauses, sometimes the main clause subject seems to have more choice and control over the actions of the adverbial clause subject. This distinction seems to be encoded in the morphosyntax of *para ma* 'so that' clauses. However, further empirical evidence is required in order to illustrate if *para ma* 'so that' clauses show different degrees of control on the part of the main clause subject. Because of space limitations, I do not address such issues here.

3.7 Result clauses

Result clauses describe a consequence or conclusion derived from the main clause (Diessel, 2001). Dixon (2009) explains that the dependent clause in this type of construction encodes a natural consequence of what is described by the main clause (*lead-up*). Result clauses in VHN show the following morphosyntactic properties:

(i)   The clause-initial adverbial conjunctions *huankino* 'then' and *yeka* 'consequently'.

(ii)   The perfective marker *-ki*.

123

Result clauses are highly systematically associated with the above formal properties since the main clause encodes what leads to the realization of another event (*lead-up*) by means of the perfective marker -*ki* and the adverbial clause encodes a natural consequence of what is described by the main clause by means of the perfective marker -*ki*. I will provide in what follows a preliminary empirical sketch of the behavior of *huankino* 'then' clauses and *yeka* 'consequently' clauses.

3.7.1 *Huankino* <mark>'then'</mark> clauses

In the example in (57), a woman walked all day long. This event is encoded in the main clause (*lead-up*) by means of the perfective marker -*k* suffixed to the verbal root *nehnen* 'to walk'. Moreover, the fact that the woman got tired is encoded in the *huankino* 'then' clause by means of the perfective -*k* suffixed to the verbal root *siah* 'to get tired'. This event is the natural consequence of the first event.

(57) toahui   neh-nen-**k**   semilhui-tl],

woman   RDP-walk-PFV   all.day.long-ABS

'The woman walked all day long,

huankino   siah-**k**.

then   get.tired-PFV

then, she got tired.'

In a similar fashion, the example in (58) encodes a result clause. In this construction what led to the realization of another event is encoded in the main clause (*lead-up*), *Juan*

mokokoaki 'Juan got sick', by the perfective marker *-ki* suffixed to the verbal root *kokoa* 'to get sick'. Moreover, the *huankino* 'then' clause encodes the natural consequence; that is, *iaki kokoxkali* 'he went to the hospital' by the perfective marker *-ki* suffixed to the verbal root *ia* 'to go'.

(58)   Juan   mo-kokoa-**ki**

       Juan   REFL-get.sick-PFV

       'Juan got sick

       huankino   ia-**ki**   kokoh-kali

       then   go-PFV   pain-house

       then, he went to the hospital.'

3.7.2 *Yeka* 'consequently' clauses

In the example in (59) the first clause is what led to the realization of another event (*lead-up*). Moreover, the *yeka* 'consequently' clause is the expected consequence which is encoded by means of the perfective marker *-k*.

(59)   okichpil   ki-kuah-**k**   sopelik,

       boy   3SG.OBJ-eat-PFV   candy

       'The boy ate candy,

       yeka   semilhui-tl   mo-tlalo-**k**.

       consequently   all.day.long-ABS   REFL-run-PFV

       consequently, he ran all day long.'

125

In the example in (60), a boy studied. This event is encoded in the main clause (*lead-up*) by means of the perfective marker *-ki* suffixed to the verbal root *mach* 'to study'. Moreover, the fact that the boy did not do his work is encoded in *yeka* 'consequently' clause by means of the perfective *-ki* suffixed to the verbal root *chihua* 'to do'. This event is the natural consequence of the first event.

(60) okichpil   mo-mach-ti-**ki**,

      boy   REFL-study-CAUS-PFV

      'The boy studied,

      [**yeka**   amo   ki-chihua-**ki**   teki-tl]].

      consequently   NEG   3SG.OBJ-do-PFV   work-ABS

      consequently, he didn´t do his homework.'

It is interesting to note that both *huankino* 'then' clauses and *yeka* 'consequently' clauses convey a logical relation of cause-reason, yet, for reasons that are not entirely clear to me, unlike subsequent events (cause/reason) and cause/reason clauses, result clauses do not appear with the phrasal adverb *ya* 'already'. Thus, the empirical conclusions seem to be rather complex.

On the other hand, one important challenge in addressing result clauses in VHN is that it is far from clear whether speakers use *yeka* 'consequently' clauses and *huankino* 'their' clauses in different fashions, since their judgments do not seem to be uniform. It is not clear whether we can distinguish them on empirical grounds. However, because of space, this question will remain open for further research.

126

3.8 Spatial clauses

Spatial clauses are those constructions which describe the place and/or direction where the event encoded in the main clause takes place. This interclausal semantic relation shows the following morphosyntactic properties:

(i)   The adverbial conjunction *kampa* 'where'.

(ii)   The directional markers *-to* and *-ti*.

        Spatial clauses occur in VHN with the above formal devices due to the fact that they underscore the directional goal of motion; that is, they specify the direction in which the action described by the verb in the main clause takes place. In what follows, I will discuss some examples.

        In (61) the main clause encodes the movement of a person with respect to a given frame of reference. On the other hand, the *kampa* 'where' clause encodes the location towards which the action described by the verb in the main clause takes place by means of directional marker *-ti* suffixed to the verbal root *kasi* 'to find'.

(61)   ya   ia-ki

        3SG.SBJ   go-PFV

        'He went

        [**kampa**   kasi-**ti**].

        where   find-DIR

        where she saw him.'

In (62), the *kampa* 'where' clause underscores the directional goal of motion by means of the directional marker *-ti* suffixed to the verbal root *teki* 'to work' since it specifies the direction in which the action described by the verb in the main clause takes place.

(62)   na   n-ia-**s**

    1SG   1SG.SBJ-go-FUT

    'I will go

    [**kampa**   ni-teki-ti-**ti**].

    where   1SG.SBJ-work-CAUS-DIR

    where I will work.'

Recall from the last chapter, spatial clauses may appear with a subordinator or an adverbial conjunction and a locative or directional marker at the same time. However, in such instances, Nefedov (2015: 209) explains that the subordinator or adverbial conjunction is redundantly used to mark spatial clauses since they already contain a locative or directional marker which sheds light explicitly on the type of interclausal semantic relation. Thus, the adverbial conjunction *kampa* 'where' is redundant since the directional marker *-ti* already encodes the directional goal of motion.

Spatial clauses in VHN show a number of remarkable and puzzling properties whose analysis afford us new insights on the cross-linguistic behavior of this complex construction. As was shown in the last chapter, main clauses in spatial constructions tend to lack locative and directional markers since they are encoded by motion verbs which indicate any movement or change in position. On the other hand, spatial clauses allow the occurrence of directional markers which indicate location or direction where the action described by the

verb in the main clause takes place. This was observed in examples (61) and (62). However, some spatial clauses in VHN do not behave in this fashion. In such cases, the main clause allows the occurrence of directional markers since the verb does not express a motion event.

For example, in (63) the main clause verbal root *kohua* 'to buy' does not denote a motion event. However, the directional marker *-to* suffixed to this verbal root indicates movement and direction in space. On the other hand, the *kampa* 'where' clause simply encodes the place where the action described by the verb in the main clause takes place. Note that this adverbial clause lacks locative and directional markers. However, the adverbial conjunction *kampa* 'where' signals a spatial relation.

(63)   tla-kohua-**to**

UNSPEC.OBJ-buy-DIR

'He will (go to) buy it

[**kampa**   asi-**s**].

where   arrive-FUT

where he arrives.'

To sum up, in this chapter I gave a detailed account of the systematic correlations between the formal properties of adverbial clauses and their associated communicative functions in VHN. Furthermore, I explained the general principles that shape and constrain such highly systematic associations.

129

CONCLUSIONS

This thesis work has brought to light some theoretically and typologically relevant issues for the study of adverbial clauses. In this manuscript, ~~it was described and explained~~ the semantic and morphosyntactic properties of adverbial clauses in VHN from a functional-typological approach; that is, the main focus was on how specific functions of the language have an effect in linguistic structure. As for the theoretically and typologically relevant issues for the study of adverbial clauses, I would like to underscore the following topics:

1. Adverbial clauses in VHN make use of both explicit and less-explicit strategies to encode different interclausal semantic relations and fine-grained local semantic links, such as adverbial conjunctions, phrasal adverbs, TAM markers, negative markers, free pronouns and directional markers, to name but a few.

2. It was shown that the semantic properties of the different interclausal semantic relations and fine-grained local semantic links of adverbial clauses in VHN are highly systematically associated with specific morphosyntactic properties. In addition, ~~it was explained~~ the general principles that shape and constrain such correlations.

3. Adverbial clauses in VHN sometimes make use of different syntactic constructions to encode the same interclausal semantic relation and fine-grained local semantic link. Thus, this empirical fact seems to confirm what Givón (2002: 22) proposes; that is, the author explains that in human language as in biology, there is always more than one structural means to encode the very same functional domain. This is

due to the fact that multiple factors interact and compete in complex ways in specific biologically-based systems.

4. **Temporal clauses** encode in VHN different fine-grained local semantic links such as precedence, subsequence, simultaneity and point of coincidence.

5. **Precedence** is characterized by the following set of properties: (i) the phrasal adverb *ayokana* 'not yet', (ii) the adverbial conjunctions *kemah* 'when' and *achtoui* 'before' and (iii) TAM markers, such as the imperfective marker -*yaya* and the perfective marker -*ki*. The motivation of such a correlation stems from the fact that events of precedence are either events that have not taken place yet or ongoing processes. On the one hand, when expressing the non-realization of a situation that may come to hold in the future, the adverbial clause makes use of both the negative phrasal adverb *ayokana* 'not yet' and the imperfective marker -*yaya*. On the other hand, when expressing an ongoing process, the adverbial clause only makes use of the imperfective marker -*yaya*. It is important to bear in mind that the main clause will always encode, by means of the perfective marker -*ki*, the event which occurred before the event encoded in the adverbial clause.

6. **Subsequence** expresses both a logical relation of chronological succession and a logical relation of cause/reason.

7. **Chronological subsequent events**, on the one hand, are highly systematically associated with the following properties: (i) the adverbial conjunction *kemah* 'when' and (ii) the perfective marker -*ki*. Events showing this type of subsequence are highly systematically associated with these formal devices for the reason that they encode the sequential order in which the events happen; that is, the development of events in chronological succession.

8. **Cause/reason subsequent events**, on the other hand, are characterized by the following set of properties: (i) the adverbial conjunction *kemah* 'when', (ii) the perfective marker *-ki* and (iii) the phrasal adverb *ya* 'already'. Subsequent events of this type are highly systematically associated with these formal devices since the perfective marker *-ki* and the phrasal adverb *ya* 'already' encode the completion of the event named in the adverbial clause which in turn motivates the realization of the event named in the main clause also encoded by means of the perfective marker *-ki*.

9. **Simultaneous events** are encoded by: (i) the adverbial conjunction *kemah* 'when', (ii) the imperfective marker *-ya* and (iii) the (optional) presence of *huaksa* 'suddenly'. This subtlety is characterized by these formal devices for the reason that the imperfective marker *-ya* encodes the ongoing process named in the adverbial clause which fully or partially overlaps with the other event encoded in the main clause by means of the imperfective marker *-ya*.

10. **Point of coincidence** is highly systematically associated with: (i) the adverbial conjunction *kemah* 'when', (ii) free pronouns and (iii) the perfective marker *-ki*. The formal make-up of point of coincidence and subsequent events that express a mere chronological order is the same. I thus proposed that what makes different point of coincidence events to chronological subsequent events is the occurrence of free pronouns in point of coincidence events, which I hypothesized, in this work, are miratives responsible for boosting surprise, unexpectedness or suddenness.

11. **Conditional clauses** show different degrees of hypotheticality or fine-grained local semantic links by means of the following explicit morphosyntactic mechanisms: (i) the clause-initial adverbial conjunction *tlan* 'if', (ii) the phrasal adverb *temachtli*

'surely', (iii) the future morpheme -*s*, (iv) the conditional marker -*skia*, (v) the intensifier *nel* 'very', (vi) the conditional marker -*toskia* and (vii) the past perfect marker -*toya*. Conditional clauses are highly systematically associated with the above formal devices since they encode hypothetical events which show different degrees of likelihood with respect to truth-values. It is important to mention that the clause-initial adverbial conjunction *tlan* 'if' does not express different degrees of hypotheticality by itself but rather it is the fact that this conjunction is accompanied by other less-explicit strategies what sheds light on such different degrees of likelihood with respect to truth values.

12. **Conditional clauses** encode different fine-grained local semantic links, such as high likelihood, low likelihood, very low likelihood and high improbability. As for high improbability, this is a conditional fine-grained local semantic link that seems to match with what Givón (2001: 332) describes as counter-fact conditionals. Counter-fact conditionals cross-linguistically tend to be marked in two basic ways: (i) combinations of two semantically conflicting verbal inflections (Givón, 2001), such as the prototypically realis past, perfective or perfect and the prototypically irrealis future, subjunctive, conditional or modal and (ii) dedicated morphology (Comrie, 1986). As was shown, VHN encodes counter-factuality by means of four strategies: (i) two semantically conflicting verbal inflections, (ii) dedicated morphology, (iii) dedicated morphology along with past tense and (iv) conditional inversion.

13. **Concessive conditionals** encode different fine-grained local semantic links, such as universal, scalar, alternative and something that I call conditional-like links.

14. There are two types of **UCCs**. The first type is introduced by the conjunction *zan katlia achonka cualantli* 'no matter how much' and the second type is introduced by the conjunction *zan katlia* 'whatever'. On the one hand, the first type of UCCs, *zan katlia achonka cualantli* 'no matter how much' clauses, expresses a quantificational force type B (concessive relation); that is, unexpected events rather than expected results. On the other hand, the second type of UCCs, *zan katlia* 'whatever' clauses, expresses a quantificational force type A (conditional relation); that is, expected results rather than unexpected events.

15. **SCCs** are encoded by means of the conjunction *yonke* 'even if'. These constructions encode an extreme value. However, it was demonstrated that the fact that the *yonke* 'even if' clause is asserted for the extreme case implies that it also holds for less extreme cases.

16. **ACCs** are encoded by juxtaposing two conditional *tlan* 'if' clauses and the future morpheme *-s*. According to Haspelmath and König, this is a strategy that is not found in Indo-European Languages.

17. **Conditional-like** is a term that I used in this work to describe any construction whose formal make-up is prototypical of conditional clauses but encode a concessive relation.

18. **Cause/reason clauses** in VHN seem to present counterevidence to the fact that cause/reason are encoded by the same formal devices in the world´s languages (Givón, 2001).

19. **Causal clauses**, on the one hand, are encoded by: (i) the clause-initial adverbial conjunctions *pampa* 'because' and *yekah* 'consequently', (ii) the phrasal adverb *ya* 'already' and (iii) the perfective marker *-ki*. Causal clauses are highly systematically

associated with the above formal devices since the *pampa* 'because' clause encodes the circumstances (external motivation) which led to the realization of another event by means of the perfective marker *-ki*. On the other hand, the result (state to become realized) is encoded in the main clause, introduced by the *yekah* 'consequently' conjunction.

20. **Reason clauses**, on the other hand, occur with: (i) the clause-initial adverbial conjunction *pampa* 'because', (ii) the perfective marker *-ki* and (iii) the phrasal adverbs *ya* 'already' and *san* 'just'. Reason clauses occur with such formal properties since the *pampa* 'because' clause encodes, by means of the phrasal adverb *san* 'just' and the perfective marker *-ki*, the circumstances (internal motivation) which led to the realization of another event On the other hand, the result is encoded in the main clause by the phrasal adverb *ya* 'already' and the perfective marker *-ki*.

21. **Concessive constructions** are characterized by the following set of properties: (i) the conjunctions *panniman* 'even though', *maske* 'even though', *ihuan* 'and' and *pero* 'but', (ii) free pronouns, (iii) the future morpheme *-s*, the imperfective marker *-yaya* and the perfective marker *-ki* and (iv) the negative markers *ach-* and *amo*. Concessive constructions in VHN are characterized by the above properties due to the fact that, particularly, the negative markers *ach-* and *amo* express incompatibility between '*p*' (adverbial clause) and '*q*' (main clause).

22. It was proposed that **concessive clauses** may be decomposed further into finer levels in a similar fashion to temporal, conditional, concessive conditional and cause/reason clauses. The concessive fine-grained local semantic links that I

proposed are: (a) expressions of irrelevance, (b) external non-agentive expressions, (c) external agentive expressions and (d) internal non-agentive expressions.

23. **Purpose clauses** are highly systematically associated with: (i) the clause-initial adverbial conjunctions *para* 'so as' and *para ma* 'so that', (ii) the purpose marker *-ti* and (iii) the future morpheme *-s*. Purpose clauses are characterized by the above formal devices since they express an event which must be unrealized at the time of the event encoded in the main clause.

24. Thompson and Longacre (1985: 187) explain that same-subject and different-subject purpose clauses may be encoded by different properties in the world´s languages. It was shown that purpose clauses in VHN behave in the same way.

25. **Result clauses** show the following morphosyntactic properties: (i) the clause-initial adverbial conjunctions *huankino* 'then' and *yeka* 'consequently' and (ii) the perfective marker *-ki*. Result clauses are highly systematically associated with the above formal properties since the main clause encodes what leads to the realization of another event (*lead-up*) by means of the perfective marker *-ki* and the adverbial clause encodes a natural consequence of what is described by the main clause by means of the perfective marker *-ki*.

26. **Spatial clauses** are highly systematically associated with: (i) the adverbial conjunction *kampa* 'where' and (ii) the directional markers *-to* and *-ti*. Spatial clauses occur in VHN with the above formal devices due to the fact that they underscore the directional goal of motion; that is, they specify the direction in which the action described by the verb in the main clause takes place.

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137

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