Original Article

MORPHOSYNTACTIC ALIGNMENT OF HÑÄHÑU (MEZQUITAL VALLEY OTOMI)

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▪ ABSTRACT: This paper describes the subject and object alignments in Hñähñu (Mezquital Valley Otomi), and compares some of their grammatical, lexical, and semantic features to those in the corresponding descriptions of Querétaro Otomi and Acazulco Otomi. The analysis presented is based on the characterization of semantic alignment by Mithun (1991) and Donohue (2008), and that of object alignment by Dryer (1986) and Haspelmath (2005); thematic roles are defined by following Bickel's (2012) grammatical relation typology. With respect to subject alignment, the split-S systems in the three languages being compared has two classes of intransitive verbs: verbs with a non-agentive S (O-verbs), and the rest (A-verbs). The three languages differ in the number of lexemes within the O-verb class, and in the number of fluid-S verbs; the morphology of O-verbs presents minor contrasts among the three. As for object alignment, the mixed characterization (i.e., indirective, as well as secundative, features) of the Hñähñu system derived from four morphosyntactic criteria suggests that the marking of object in Otomi languages obeys mechanisms that go beyond thematic roles.

▪ KEYWORDS: Otomi languages. Morphosyntactic alignment. Semantics. Comparative linguistics. Meta-analysis.

The Otomi language family is a group of indigenous languages spoken in central Mexico, in the states of Guanajuato, Querétaro, Hidalgo, Veracruz, Puebla, Tlaxcala, Mexico, and Michoacán. The Otomi family is the largest and most widespread within the Oto-Pamean branch of the Oto-Manguean stock (central and southern Mexico), and consists of 4 to 9 languages or dialectal continua (LASTRA, 2006; INALI, 2009; PALANCAR, 2013). The vitality of these languages ranges from "moribund" (e.g. Tilapa Otomi) to "developing" (e.g., Mezquital Valley Otomi) (SIMONS; FENNIG, 2017).

The morphology of person marking on the verb in Hñähñu (Mezquital Otomi Valley) can be summarized as follows. The subject and object in transitive verbs are expressed by means of a inflectional formative that precedes the verb and by a suffix, respectively, as seen in (1a). In some intransitive verbs, the subject is encoded in the inflectional formative that precedes the verb, as in (1b), while in others it is marked by means of a person enclitic, as in (1c).

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1) a.	*dá tamp'i*[1]	b.	gá nĕi	c.	*bi mobo'i*
	dá=tamp-**'i**		**gá**=nĕi		bi=mobo=**'i**
	1.PST=buy-2OBJ[2]		2.PST=PFV\dance		PST=get.wet=2
	'I bought it from you.'		'You danced.'		'You got wet.'

This paper describes the morphosyntactic alignment of Hñähñu in verbal morphology, and in other constructions as well. The antecedents of this type of studies and the terminology used are presented in §ANTECEDENTS, and grammar features of the language relevant to the discussion are introduced in §GRAMMAR NOTES. The morphosyntactic alignment of Hñähñu verbal morphology is described in §SUBJECT ALIGNMENT and in §OBJECT ALIGNMENT; in §ALIGNMENT IN OTOMI, other features of the language's morphosyntactic alignment are summarized and compared to those of Querétaro Otomi (PALANCAR, 2009) and of Acazulco Otomi (HERNÁNDEZ-GREEN, 2015). Some final comments and projections to the future are included in §CONCLUSIONS.

Antecedents

Works on morphosyntactic alignment in Otomi languages began to appear only in the 21st century. The Hñähñu language has not been described in this regard, and its classification as an accusative alignment language in the World Atlas of Language Structures (DRYER; HASPELMATH, 2017) is due to indirect interpretations based on Hess (1968).

Subject alignment in other Otomi languages has been described as accusative with an agentive-patientive intransitive split (PALANCAR, 2012; 2013; HERNÁNDEZ-GREEN, 2015); Palancar (2008) proposes an additional split of the active-stative type. Hernández-Green (2018) tries to summarize these accusative, agentive-patientive and active-stative systems under a more general alignment label "non-agentive" (vs. default). With respect to morphosyntactic alignment of P, Palancar (2009) describes Northern Otomi as a language of the indirective type (i.e., direct object vs. indirect object); so do other authors also in other Otomi languages (HEKKING; ANDRÉS DE JESÚS, 1984, p.121; VOIGTLANDER; ECHEGOYEN, 1985, p.170-183; LASTRA, 1997, p.40). In contrast, Acazulco Otomi (HERNÁNDEZ-GREEN, 2015) has been described as a language of the secundative type (i.e., primary object vs. secondary object).

1 Practical orthography of Hñähñu (when different from IPA): <*ä*> = [ã], <*e̱*> = [ɛ], <*f*> = [pʰ, ɸ], <*h*> = [h, ʰ], <*'*> = [ʔ, ˀ], <*j*> = [kʰ, x], <*ñ*> = [ɲ], <*o̱*> = [ɘ], <*r*> = [ɾ], <*u*> = [u, w, ʷ], <*u̱*> = [ɨ], <*x*> = [ʃ], <*y*> = [j].

2 Abbreviations: 1 = 1st person, 2 = 2nd person, 3 = 3rd person, A = transitive agent, ditr. = ditransitive verb, CSL = cislocative, DEP = dependent tense, DIST = distal, DU = dual, EXCL = exclusive, exp = experiencer, NP = noun phrase, IMPRF = imperfect tense, INFL = inflectional marker, IRR = irrealis mood, G = ditransitive goal/receiver, MID = middle marker, OBJ = object, P = transitive patient, PFV = perfective stem, PL = plural, NPRED = noun predicate, POSS = possessor, PROX = proximal, PRS = present tense, PST = past tense, RECP = reciprocal, S = intransitive sole argument, SG = singular, T = ditransitive patient/theme, TAM = tense/aspect/mood, intr. = intransitive verb, tr. = transitive verb.

The description of the morphosyntactic alignment of S and P presented in this paper is based on the thematic roles proposed by Bickel (2012), summarized in (2).

2) S sole argument of an intransitive verb
A most actor-like argument in a transitive verb
P[3] not most actor-like argument in a transitive verb
G the most goal-like (or ground-like) argument in a ditransitive verb
T the most patient-like argument in a ditransitive verb

Under this proposal, the experiencer in transitive verbs is assigned the thematic role A, while the stimulus is assigned the role P. Grammatical relationships can be defined, in terms of the roles listed in (2), as the "syntactic relation that an argument [or set of arguments] bears to a specific construction or rule" (BICKEL, 2012, p.2).

In this paper, the characterization of a construction or a grammatical rule (or a predicative lexeme) within some type of morphosyntactic alignment will be made based on the argument (or set of arguments) for which said construction or grammar rule applies. It should be noted that a morphosyntactic alignment type seems not necessarily to be a feature of a language's grammatical system, but a property of constructions, or series of grammar rules, within that language's system. For example, in Nepali, a nominative-accusative alignment pattern is observed when considering person marking on the verb, but an ergative-absolutive alignment emerges if one focuses on the case marking of NPs (BICKEL, 2012).

In addition to the alignment terminology mentioned in the preceding paragraphs, terms related to split-S of the agentive-patientive and active-stative types (MITHUN, 1991; DONOHUE, 2008) will also be used.

Grammar notes

Hñähñu is a tonal language with three tones: high (A), rising (BA) and low (B). The three tones can be found in lexical contrasts, as in (3), and also with grammatical functions, as in (4): the verb *'o* 'be inside' in (4a) has low tone in the imperfective aspect, but high tone in the perfective.

3)	'yófri	'drive; pierce, sprout'	(A)
	'yǒfri	'muleteer'	(BA)

(HERNÁNDEZ CRUZ *et al.*, 2010, p.xx)

4)	a.	'o	'be inside (imperfective)'	(B)
	b.	'ñó	'be inside (perfective)'	(A) (WALLIS, 1956, p.455)

[3] Bickel (2012) uses letter "O" for this role.

As can be seen in (4), verbal inflection can also be accompanied by segmental morphophonological changes. In this case, an /ñ/ is added to the initial consonant /’/ of the verb stem *'o* ‘be inside’ in perfective aspect in (4a). This segment is a nasal prefix that occurs in some areas of the paradigm of some intransitive verbs in Hñähñu and in other Otomi languages (PALANCAR, 2009, p.220).

Hñähñu is head-marking, where the verb is the most complex lexical category at the inflectional level. Nominal and verbal inflection categories are often marked by proclitics, usually written separate from the lexical stem in practical orthography. Proclitics to the left of nouns encode grammatical number and person of possessor, while verb proclitics mark tense-aspect-mood (TAM) categories, as well as grammatical person. See some examples in (5) and in (6). The proclitics *ra=* ‘SG’ and *rá=* ‘SG.3POSS’ in (5) mark singular number; the proclitic *rá=* ‘SG.3POSS’ also encodes 3rd person possessor. In (6), the verb proclitic *gá=* ‘2.PST’ indicates 2nd person and past tense (realis), while *ga=* ‘1.IRR’ marks 1st person and irrealis mode (translated here as future tense).

5) ra ngu ‘the house’
rá ngu ‘his/her/their house’

6) gá xipi ‘you told him/her/them’
ga xipi ‘I’ll tell him/her/them’

The core participants in a sentence in Hñähñu can be expressed by means of pronominal forms (either free or dependent to the verb), or by means of full noun phrases. The minimum noun phrase in Hñähñu has the form shown in (5) above, that is, a proclitic indicating grammar number plus a noun. The basic order of constituents of the language is VO; the noun phrase of S can either precede (SVO) or follow the verb (VS, VOS, VSO). Other VO-type features of Hñähñu are that: it has prepositions, the possessor follows the possessum, relative clauses follow their heads, and the TAM markers precede the verb stem (DRYER, 1992).

Among other morphosyntactic features, the language has an impersonal-passive construction and a reciprocal-reflexive construction. The impersonal-passive construction does not promote the object to the subject position (BARTHOLOMEW, 2010). The reciprocal-reflexive construction is marked by the middle prefix *n-* ‘MID’ in all tenses (BARTHOLOMEW, 2010), as shown in (7). The verb *xat’i* ‘scratch’ in (7a) is transitive, and it can take the middle prefix *n-* ‘MID’, as in (7b), to indicate that A and P are co-reciprocants.

7) a. *ra nzu̱pa xat’a rá mu̱i* (A, P)
ra=nzu̱pa xat’a=rá mu̱i
SG=monkey scratch=SG.3POSS belly
‘The monkey scratches its belly.’

b. *di nxat'i ko yá ne* (A=P)
di=**n-**xat'i ko=yá ne
PRS=MID-scratch with=PL.3POSS mouth
'They (i.e. horses) scratch each other with their mouths.'
(HERNÁNDEZ CRUZ *et al.*, 2010)

The language also has what appears to be a type I noun incorporation construction (MITHUN, 1984), in which the verb stem is immediately followed by a bare noun (i.e., without a determiner) (HERNÁNDEZ CRUZ *et al.*, 2010, p.200). In this construction, some nouns occur in a phonetically reduced form, while others only appear juxtaposed to the verb without suffering any kind of reduction (i.e., morphological composition vs. juxtaposition) (MITHUN, 1984, p.849-854). The noun *déhe* 'water' in the NP object in (8a) occurs in a reduced unstressed form *-the* suffixed to the verb stem in the noun incorporation construction shown in (8b). The noun *zǎ* 'tree' in the object NP in (9a) does not occur in a reduced unstressed form in the incorporation construction in (9b), but it is a stressed word with a lexical tone associated to it. In addition, the verb inflected for past tense in incorporation constructions like those in (8b) and (9b) takes the nasal prefix characteristic of intransitive verbs (see (4) above).

8) a. *ndá tsǐ* [*ra déhe*]$_{NP}$
ndá=tsǐ ra déhe
DEP.1.PST=ingest SG water
'(When) I drank (the) water.' (HERNÁNDEZ CRUZ *et al.*, 2010, p.372)

b. *dá ntsǐthe*
dá=n-tsǐ-**the**
1.PST=INFL-ingest-water
'I drank water.' (HERNÁNDEZ CRUZ *et al.*, 2010, p.349)

9) a. *bí tsé̱ki* [*ya zǎ*]$_{NP}$
bí=tsé̱ki ya zǎ
PRS.CSL=cut.off PL tree
'He's cutting off (the) trees.' (HERNÁNDEZ CRUZ *et al.*, 2010, p.347)

b. *dá ntsé̱ka zǎ*
dá=n-tsé̱ka **zǎ**
1.PST=INFL-cut.off tree
'I cut off trees.' (HERNÁNDEZ CRUZ *et al.*, 2010, p.347)

Most lexical roots (verbs, nouns, adjectives) in Otomi languages are either monosyllabic or disyllabic. Many disyllabic roots are made up by a monosyllabic root plus a "stem formative" (BARTHOLOMEW, 1965, p.98-99), that is, a fossilized morpheme that seems to have had (nowadays unproductive) directional functions at an earlier stage in the history of the language (VOIGTLANDER; ECHEGOYEN; BARTHOLOMEW, 2006). In particular, Hñähñu has a set of 23 different stem formatives, represented here with a plus sign on the left, following Palancar (2004): *+hV*, *+i*, *+bV*, *+gi*, *+fV*, *+mi*, *+N*, *+pi*, *+ti*, *+ki*, *+'mi*, *+t'i*, *+ts'i*, *+ni*, *+xi*, *+'ti*, *+'tsi*, *+nt'i*, *+nti*, *+hni*, *+nts'i*, *+ngi* (BARTHOLOMEW, 2010, p.507).[4] In Proto-Otomi-Mazahua, the stem formatives seem to have been associated to valency alternations (BARTHOLOMEW, 1965, p.101), as suggested by the examples of verb pairs in Table 1. Alternations between stem formatives (indicated with ↔) correlate with alternations in the number of participants that the verb requires.

Table 1 – Valency relations between some Hñähñu stem formatives

				examples:	
			intr.	*tr.*	*ditr.*
+di	↔	+ti		'údi 'point to'	'úti 'show (sb.)'
+i	↔	+N		tai 'buy'	tam-[5] 'buy (for sb.)'
+i	↔	+'mi	'bǎi 'stand up'	'ba'mi 'put up'	
+i	↔	+mi	hó̱e 'fall'	ho̱mi 'fell'	
+gi	↔	+ki	xógi 'open'	xóki 'open'	
+t'i	↔	+'ti	huét'i 'go out (fire)'	hué'ti 'put out (fire)'	
+ts'i	↔	+'tsi	ñuts'i 'be full'	ñu'tsi 'fill'	

Source: Author's elaboration.[5]

Alternations such as those shown in Table 1 above are no longer morphologically productive in modern Otomi languages, nor is the directional function they once had. Today, Otomi stem formatives "are, in the vast majority of cases, semantically opaque morphemes [...] which carry a [...] primarily classificatory morphological function and nothing else" (PALANCAR, 2009, p. 151).[6]

Verbs with certain stem formatives (as well as person suffixes, see §Accusative pattern) take different forms according to whether they occur in the middle or at the end of an intonational phrase. In the case of verbs with a stem formative, this difference consists of a final /a/ in medial position, in contrast with final /i/ or /e/ in final position (e.g., *'ba'ma/'ba'mi* 'put up').

4 In this list of stem formatives, "V" stands for a vowel, and "N" stands for a nasal consonant.

5 The hyphen to the right of the verb stem *tam-* 'buy (from sb.)' indicates that such stem must always occur followed by a person suffix (see §3rd person object).

6 Translation is my own (Néstor Hernández-Green).

Subject alignment

Hñähñu has two series of grammatical markers to indicate the thematic roles S/A on the verb. The first series is morphologically fused together with TAM categories in the verb proclitic, whereas the second series contains the enclitics *=gi* ‘1’ and *=’i* ‘2’. The most common verb proclitics of Hñähñu are shown in Table 2. In this paper, only verb forms in the singular are described, as the morphology of grammatical number is irrelevant to the language’s alignment system.

Table 2 – Person marking in Hñähñu verb proclitics

			mood	
aspect	*tense*	*person*	*realis*	*irrealis*
imperfective	present	1st	dí=	
		2nd	gí=	
		(3rd)	(di=)	
	imperfect	1st	ndí=	
		2nd	ngí=	
		(3rd)	mí=	
perfective	past	1st	dá=	
		2nd	gá=	
		(3rd)	bi=	
	perfect	1st	stá=	
		2nd	xká=	
		(3rd)	xa=	
	future	1st		ga=
		2nd		gi=
		(3rd)		da=

Source: Author’s elaboration.

Strictly speaking, 3rd person S/A is not explicitly marked in the verb in Hñähñu. As will be shown in §Non-agentive pattern, verb proclitics labeled “(3rd)” do not encode grammatical person *per se*, although they are used to inflect verbs with 3rd person S/A; there is no enclitic for 3rd person S/A in the same series as *=gi* ‘1’ and *=’i* ‘2’ (second series) either. This means that person marking of S can be evaluated from 1st and 2nd person forms only. The use of verb proclitics and person enclitics to indicate the grammatical person of S/A is described in §Accusative pattern, and in §Non-agentive pattern, respectively.

Accusative pattern

Most verbs in Hñähñu follow an accusative pattern to encode S/A. In this pattern, the grammatical person of {S, A} is encoded in the verb proclitic, while the grammatical person of P is indicated by a person suffix. This accusative pattern is illustrated in (10). In the transitive construction in (10a), the 1st person A is encoded in the proclitic *dí=* '1.PRS', as is the 1st person S with the active verbs in (10b) and (10c), regardless of their agentivity status; the very same can be said of the 1st person S with the stative verb in (10d). The enclitic *=gi* '1' in parentheses is not obligatory, but it is rather an emphatic marker. The morphology of object marking, such as the 2nd person suffix *-'a* '2OBJ 'in (10a), will be described in detail in §OBJECT ALIGNMENT.

10) a. **dí**=tó̱p-'a='i (transitive A)
1.PRS=wait.for-2OBJ=2
'I wait for you.'

b. **dí**=néi(=gi) (agentive S)
1.PRS=dance=1
'I dance.'

c. **dí**=hñeni(=gi) (non-agentive S)
1.PRS=get.sick=1
'I get sick.'

d. **dí**=se̱he̱(=gi) (stative S)
1.PRS=be.alone=1
'I am alone.'

The 1st and 2nd person enclitics can be used as emphatic markers of S/A, while their use to indicate the person of P does not necessarily imply an emphatic use; some verbs, due to morphological characteristics associated to their stem formative, require person enclitics (and not suffixes) to encode P. The person enclitics have the function of (non-emphatically) encoding S with verbs that follow the non-agentive pattern of the language, as will be shown in §Non-agentive pattern.

Non-agentive pattern

A small group of intransitive verbs in Hñähñu encode 1st and 2nd person S by means of the enclitics *=gi* and *='i*, respectively; this morphological strategy contrasts with the encoding of the S in verbs that follow the accusative pattern, which indicate the grammatical person of S in a cumulative way in the TAM marker (§Accusative pattern). Consider the examples in (11) with the verb *mobo* ‘get wet’. The verb takes the enclitics =gi and =*’i* to encode 1st and 2nd person S in (11a) and in (11b), respectively. The language does not have an obligatory enclitic to encode 3rd person S, but this can be done by using the anaphoric pronoun =*’ä* ‘3SG’, as shown in (11c).[7] For all three grammatical persons, the past tense marker *bi*= ‘PST’ is invariable.

11)	a. bi=mobo=**gi**	b. bi=mobo=**’i**	c. bi=mobo=(‘ä)
	PST=get.wet=1	PST=get.wet=2	PST=get.wet=3SG
	‘I got wet.’	‘You got wet.’	‘S/he got wet.’

The person enclitic in verbs that follow the non-agentive pattern corresponds to the participant S, and not to the participant P of a transitive verb. This is seen more clearly if the 1st person form in (11a) above, which follows the non-agentive pattern, is contrasted with the corresponding transitive form with 1st person P. The transitive verb *pobo* ‘get wet’ in (12) undergoes apocope in its stem formative +*bo* when taking the 1st person suffix that encodes P.

12) bi=po-**ka**=gi
PST=get.wet-1OBJ=1
‘S/he got me wet.’

In the lexicon of Hñähñu, at least five verbs have been identified that follow exclusively the non-agentive pattern illustrated in (11) above. These verbs are listed in (13), along with their corresponding transitive and middle verbs, provided they are morphologically related to the intransitive verb that follows the non-agentive pattern.

	intransitive	*transitive*	*middle*	
13)	pat’i	pa’ti	mpa’ti	‘heat (oneself) up’
	mobo	pobo	mpobo	‘get (oneself) wet’
	zä́t’i	tsä́t’i	ntsä́t’i	‘burn (oneself)’
	tsábi	tsabi	ntsabi	‘get/make tired’
	néki			‘be seen; appear’

The label “non-agentive” given to the pattern described in this section is because all the verbs that follow it have a semantically non-agentive S (HERNÁNDEZ-GREEN, 2018). The same semantic feature can also be observed in several verbs that follow the fluid pattern, which is described in §Fluid-S pattern.

[7] Other 3rd person pronouns that can occur in this position are the anaphoric pronoun =*’u̲* ‘3PL’ and the demonstratives =*na* ‘PROX.SG’, =*ya* ‘PROX.PL’, =*ni* ‘DIST.SG’ y =*yu̲* ‘DIST.PL’.

Fluid-S pattern

In Hñähñu, 14 verbs have been identified that can encode the grammatical person of S either cumulatively in the TAM marker, or by means of person enclitics. These verbs are listed below in (14), inflected for 1st person S in both patterns (i.e., accusative and non-agentive)[8] in the past or the present tense (the latter in the case of *fónt'i* 'stink'). The verbs in (14a) have the stem formatives *+t'i*, *+ti* or *+ts'i* and have a medial form ending in /a/ when they take the person enclitic, while those in (14b) have the stem formatives *+nt'i*, *+ni*, *+'ti*, *+i*, or none (in the case of *ho̱du* 'faint'), and do not have the medial form in /a/ but final /i/ before the person enclitic.

	accusative p.	*non-agentive*	
14) a.	**dá** 'yot'i	bi 'yot'a**gi**	'I got thin'
	dá jä́t'i	bi jä́t'a**gi**	'I choked'
	dá tse̱t'i	bi tse̱t'a**gi**	'I got cold'
	dá hăt'i	bi hăt'a**gi**	'I paled (because of illness)'
	dá huät'i	bi huät'a**gi**	'I shivered'
	dá tsíti	bi zíta**gi**	'I got worse (illness)'
	dá niti	bi nita**gi**	'I got goosebumps'
	dá xĭts'i	bi xĭts'a**gi**	'I got goosebumps'
b.	**dí** fónt'i	fónt'i**gi**	'I stink'
	dá ñäni	bi ñäni**gi**	'I healed'
	dá neni	bi neni**gi**	'I swelled'
	dá 'bá'ti	bi 'bá'ti**gi**	'I wrinkled/shriveled'
	dá kŭ̱i	bi yŭ̱**igi**	'I sank'
	dá ho̱du	bi ho̱du**gi**	'I fainted'

Notice that all the verbs in (14) have a non-agentive S. In languages with a class of fluid-S verbs such as those in (14), person marking pattern followed by predicates is often semantically conditioned: the agentivity, volition, or dynamism of S can trigger the agentive pattern, while the affectation or lack of volition of the S can trigger the patientive pattern (DIXON, 1994, p.78-81; DONOHUE, 2008, p.51). However, the Hñähñu verbs in (14) have the lexically conditioned option of taking either person marking pattern without the semantic features of S determining what that pattern is; according to reports from the speakers themselves, the choice of pattern has no effect on the meaning of the verb form.[9] In use, each one of the verbs in (14) tends to be inflected following a particular pattern: with the verbs *tse̱t'i* 'get cold', *tsíti* 'get worse',

8 According to the glossed forms above in (10) and in (11), respectively.

9 A similar case of fluid verbs without semantic correlations for either pattern can also be observed in Choctaw (Aaron Broadwell, p.c.).

and *fónt'i* 'stink', speakers tend to encode the person of S with enclitics (non-agentive pattern), while they usually encode it in the TAM marker (accusative pattern) with the rest of the fluid-S verbs.

Marking of S in non-verbal predicates

The person marking patterns for S in intransitive verbs in Hñähñu are described in §Accusative pattern and in §Non-agentive pattern; in the following paragraphs, I show that similar patterns can also be observed in non-verbal predicates in this language.

Nominal predication follows the accusative pattern, in the sense that the person of S is encoded in the noun predicate proclitic (in bold in (15)). Noun predicates can indicate either class membership (i.e., "X belongs to class Y") or identity (i.e., "X is Y"), as shown in (15a) and (15b), respectively.

15) a. **drá**=ápóstol
1.NPRED=apostle
'I am an apostle.'

b. **grá**=bädi Élía
2.NPRED=wiseman Elijah
'You are the prophet Elijah' (WBT, 2008)

Possessed nouns, in contrast, follow the non-agentive pattern when they function as predicates. The predicative construction with possessed nouns consists of a possessor marker plus a noun with a person enclitic, *=gi* or *='i* for 1st or 2nd person, respectively (see §Non-agentive pattern). (16a) illustrates 1st person S, while (16b) illustrates 2nd person S.

16) a. **ri**='Ajuǎ̈=**gi**
2POSS=God=1
'I am your God.'

b. **ma**='Ajuǎ̈=**'i**
1POSS=God=2
'You are my God.' (WBT, 2008)

Finally, Hñähñu has a class of stative predicates that refer to property concepts (PALANCAR, 2006); here I label these predicates as "adjectival predicates", or simply "adjectives". Within this class, the encoding of S also follows the non-agentive pattern. The adjectival predicate *ñho* 'be well' in (17) is inflected for person of S by means of the enclitics *=gi* '1' and *='i* '2' in (17a) and (17b), respectively; notice that the corresponding 3rd person form in (17c) does not take any enclitic.

17) a. xá=ñho=**gi**	b. xá=ñho=**'i**	c. xá=ñho
PRS=be.well=1	PRS=be.well=2	PRS=be.well
'I am well.'	'You are well.'	'S/he is well.'

In the previous paragraphs, I have shown that the encoding of S by means of person enclitics is not restricted to verbs that follow the non-agentive pattern, but it also occurs in two different types of non-verbal predicates: possessed nouns and adjectival predicates.

The semantic alignment of Hñähñu

The data shown in the previous four subsections are summarized below in Table 3. With respect to the codification of S in verbs, Hñähñu lexemes are divided into three patterns: a) an accusative pattern in which the person of S is encoded in the TAM marker ("procl="), b) a non-agentive pattern where an enclitic ("=encl") is used to encode the person of S, and c) a fluid pattern, in which the codification of S alternates between the accusative pattern and non-agentive pattern. In nominal predication, two patterns are observed: the accusative (with non-possessed nouns) and the non-agentive (with possessed nouns). Adjectives, in turn, only follow the non-agentive pattern.

Table 3 – S-marking patterns by predicate type

predicate type	*S-marking*	*(pattern)*
verb	procl=	accusative
	=encl	non-agentive
	procl= ~ =encl	fluid
noun	procl=	accusative
	=encl	non-agentive
adjective	=encl	non-agentive

Source: Author's elaboration.

In Hñähñu, the codification pattern predicts the semantic type of S, but not the other way around: all intransitive verbs that must (or may, alternatively) encode the person of S by means of an enclitic have a non-agentive S (see §Non-agentive pattern and §Fluid-S pattern); the rest of the intransitive verbs in the language, which encode the person of S in the TAM proclitic, have either agentive or non-agentive S (see §Accusative pattern). Due to the fact that the semantic type of S does not predict the encoding pattern that a particular verb must follow, it is somewhat problematic to try to characterize Hñähñu as a language with semantic alignment, if one wants to strictly follow the definition that "[the] basic alignment properties of a language can best be described by appealing to semantic factors, rather than syntactic ones" (DONOHUE, 2008, p.24). In the light of these facts, subject alignment in Hñähñu could simply be described as a split-S system, without appealing to semantic factors underlying such split. However, I have decided to characterize it as a system with semantic alignment considering that the non-agentive pattern is not only found in verbs, but also in adjectival predicates and in nominal predicates with a possessor marker. In other words, the label I give it is due to the extension of the non-agentive pattern beyond verbal morphology, a pattern that permeates different areas of the system. In addition, the possibility exists that this split-S system without a strong semantic motivation present nowadays in Hñähñu derived from a more consistently semantic alignment system, as seems to be the case in other Otomi languages (HERNÁNDEZ-GREEN, 2018).

Object alignment

As briefly mentioned in §Accusative pattern, the thematic roles of P and G are encoded in transitive verbs either by means of person suffixes, or by means of enclitics. These markers are presented in Table 4, along with their different allomorphs and associated thematic roles. As can be seen in the last column of the Table 4, person suffixes and enclitics can also encode participants with thematic role A and semantic role of experiencer (see §ANTECEDENTS). The suffixes with vowel /a/ correspond to the medial form, and the suffixes with vowel /i/ to the final form (see §GRAMMAR NOTES).

Table 4 – Hñähñu person suffixes

	suffix	enclitic	thematic role(s)
1st	-ga, -ka; -gi, -ki	=gi	
2nd	-’a; -’i	=’i	{P, G, A_{exp}}
3rd	-ba, -pa, -ua; -bi, -pi, -ui	=bi	

Source: Author’s elaboration.

The person suffixes in Table 4 trigger morphophonological changes in verb stems with stem formatives; the suffix in turn surfaces as a different allomorph depending on the verb’s stem formative (or lack thereof). As it should be expected, person enclitics do not trigger or undergo any allomorphy. The following sections present the allomorphies associated to the suffixation of person markers to the Hñähñu verb, as well as the thematic roles to which such markers refer.

1st/2nd person object

The morphophonological changes in the verb stem triggered by the 1st person suffix are shown in Table 5. These changes are determined by the stem formative (or lack thereof), and include: a) total elision of the formative (→ Ø), b) elision of the final vowel, c) loss of glottal features, d) the excretion of alveolar segments (Ø → /nt/), or e) other idiosyncratic segmental changes (/m/ → /b/, /ts’/ → /x/, /’ts/ → /s, 's/). The list is not exhaustive, although it contains most of the changes observed. The enclitic *=gi* ‘1’ (in parentheses) can co-occur with the 1st person suffix.

Table 5 – Morphophonological changes with 1st person suffix

allomorph	formative	change	example	suffixed example	
-ga/-gi	Ø	–	pa	pa-ga(=gi)	‘s/he sells me’
	+gi	→ Ø	tsógi	tsó-ga(=gi)	‘s/he leaves (it to) me’
	+ki		hóki	hó-ga(=gi)	‘s/he builds it for me’
	+nV	→ /n/	'ĕnä	'ĕn-ga(=gi)	‘s/he says it to me’
	+’mi	→ /b/	tó̱’mi	tó̱b-ga(=gi)	‘s/he waits for me’
	+ndi	→ /nd/	handi	hand-ga(=gi)	‘s/he sees me’
-ka/-ki	Ø	–	pa	pa-ka(=gi)	‘s/he sells it to me’
		→ /nt/	hǎ	hǎnt-ka(=gi)	‘s/he brings it to me’
	+hV	→ Ø	tắhä	tắ-ka(=gi)	‘s/he beats me’
	+bV		pobo	po-ka(=gi)	‘s/he gets me wet’
	+fV		xifi	xi-ka(=gi)	‘s/he tells me’
	+di		'adi	'a-ka(=gi)	‘s/he asks me for it’
	+’tsi	→ /s/	ko’tsi	kos-ka(=gi)	‘s/he gives it back to me’
		→ /’s/	pe̱’tsi	pe̱’s-ka(=gi)	‘s/he hits me’
	+t’i	→ Ø	tsắt’i	tsắ-ka(=gi)	‘s/he burns me’
		→ /t/	'o̱t’e	'o̱t-ka(=gi)	‘s/he makes it for me’
	+’ti	→ /t/	'úti	'út-ka(=gi)	‘s/he shows it to me’
	+ti		ju’ti	jut-ka(=gi)	‘s/he pays me’
	+pi	→ /p/	'ĕpi	rí 'ñĕp-ka(=gi)	‘it is convenient to me’
	+hni	→ /n/	pe̱hni	pe̱n-ka(=gi)	‘s/he sends (it to) me’
	+ts’i	→ /x/	fats’i	fax-ka(=gi)	‘s/he helps me’

Source: Author’s elaboration adapted from Bartholomew (2010, p. 508-509).

Notice that the 1st person suffix refers to the participant with thematic role P with some verbs (i.e., most examples in which the translation includes no object pronouns other than *me*), while with others it refers to the participant G (i.e., examples in which the translation includes the object pronoun *me* plus some other object pronoun). The verb form *pe̱nkagi* ‘s/he sends (it to) me’ is ambiguous in terms of the thematic role of the 1st person; moreover, with the verb *'ĕpi* ‘be convenient’,[10] the suffix (and the enclitic) refers to an experiencer A participant.

[10] For reasons beyond the purpose of this paper, the verb *'ĕpi* ‘be convenient’ is inflected by means of a different series of TAM markers (in this case, the proclitic *rí* ‘PRS’).

The morphophonological changes in Table 5 are observed with verbs with monosyllabic roots, or verbs with a monosyllabic root plus a stem formative; compounds, loans, and some verbs with the stem formatives +*'ti* or +*i* do not undergo these processes, and encode 1st person P, G, or A_{exp} with the enclitic =*gi* '1'. See one example for each of such cases in (18).

18) a. kámfri=**gi** (P, G)
believe=1
'S/he believes in me.'
'S/he believes that from me.'

b. 'ótho=**gi** (A_{exp})
there.is.not=1
'I don't have (it).' (Lit. 'there isn't for me')

c. di=mfáda=**gi** (P)
PRS=insist=1
'S/he insists to me.'[11]

d. di=pa'ti=**gi** (P, G)
PRS=heat.up=1
'S/he heats me up.'
'S/he heats it up for me.'

e. tai=**gi** (P)
buy=1
'S/he buys me.'

The encoding of P or G can also be done by attaching the person enclitic to verbs with stem formatives. In such cases, the verb form alternates between a suffixed form (plus optional enclitic) and a form with enclitic without morphophonological changes; alternative forms do not contrast semantically, as shown in (19). The 1st person object marker can refer to either P or G, as indicated by the alternative free translations given in each example.

suffix *enclitic*
19) a. di=mä-**ka**(=gi) ~ di=mädi=**gi**
PRS=love-1OBJ=1 PRS=love=1
'S/he loves me.'
'S/he loves what is mine.'

[11] From Spanish *enfadar* 'to bother'.

b. bi=hand-**ga**(=gi) ~ bi=handi=**gi**
PST=see-1OBJ=1 PST=see=1
'S/he saw me.'
'S/he saw what is mine.'

c. mí=té̱n-**ga**(=gi) ~ mí=té̱ni=**gi**
IMPRF=follow-1OBJ=1 IMPRF=follow=1
'S/he was following me.'
'S/he was following what is mine.'

The morphophonological processes associated to the 1st person suffix in Hñähñu are very similar to those observed in Querétaro Otomi (HERNÁNDEZ GÓMEZ, 2008; PALANCAR, 2009) and in Acazulco Otomi (HERNÁNDEZ-GREEN, 2015). Table 6 shows the corresponding morphophonological changes with the 2nd person suffix; the enclitic *='i* '2' is also included (in parentheses). The kinds of changes observed therein are similar to those that occur with the 1st person suffix, although they are distributed differently; the examples in (20) show how compounds, loans and some verbs with certain stem formatives take the enclitic *='i* '2' instead of the suffix to encode participants with thematic roles P, G, or A_{exp}.

Table 6 – Morphophonological changes with 2nd person suffix

allomorph	formative	change	example	suffixed example	
-'a/-'i	Ø	–	pa	pa'a(='i)	's/he sells (it to) you'
	+hV	→ Ø	mihi	mi-'a(='i)	's/he borrows it from you'
	+fV		xifi	xi-'a(='i)	's/he tells you'
	+bV		pobo	po-'a(='i)	's/he gets you wet'
	+di		'adi	'a-'a(='i)	's/he asks you for it'
	+gi	→ Ø	tsógi	tsó-'a(='i)	's/he leaves (it to) you'
		→ /k/	tĕge	tĕk-'a(='i)	's/he finishes it up for you'
	+nV	→ /ñ/	'ĕnä	'ĕñ-'a(='i)	's/he says it to you'
	+ndi	→ /nt/	handi	hant-'a(='i)	's/he sees you'
	+ts'i	→ /x/	fats'i	fax-'a(='i)	's/he helps you'
	+'tsi	→ /ts/	ko'tsi	kots-'a(='i)	's/he gives it back to you'
	+pi	→ /p/	'ĕpi	rí 'ñĕp-'a(='i)	'it is convenient to you'
	+'mi		to̱'mi	tó̱p-'a(='i)	's/he waits for you'
	+i	→ /mp/	tai	tamp-'a(='i)	's/he buys it from you'
	+hni		pe̱hni	pe̱mp-'a(='i)	's/he sends (it to) you'
	+t'i	→ /t/	tsắt'i	tsắt-'a(='i)	's/he burns you'
	+'ti		ju'ti	jut-'a(='i)	's/he pays you'
	+ti		'úti	'út-'a(='i)	's/he shows it to you'

Source: Author's elaboration adapted from Bartholomew (2010, p. 509-510).

20) a. kámfri=**’i** (P, G)
believe=2
‘S/he believes in you.’
‘S/he believes that from you.’

b. 'ótho=**’i** (A_{exp})
there.is.not=2
‘You don’t have (it).’ (Lit. ‘there isn’t for you’)

c. di=mfáda=**’i** (P)
PRS=insist=2
‘S/he insist to you.’[12]

d. di=pa’ti=**’i** (P, G)
PRS=heat.up=2
‘S/he heats you up.’
‘S/he heats it up for you.’

e. tai=**’i** (P)
buy=2
‘S/he buys you.’

As it is the case with the 1st person suffix, the 2nd person suffix refers to the participant P with some verbs, but to the participant G with others. The verb form *pe̱mp’a’i* ‘s/he sends (it to) you’ is ambiguous in terms of the thematic role of the referred participant. Moreover, the 2nd person suffix can also refer to a participant with thematic role of experiencer A, as is the case with the verbs *'ĕpi* ‘be convenient’ (*rí 'ñĕp’a’i* ‘it is convenient to you’) and *'ótho* ‘there is not’. Again, as is the case with 1st person, the codification of 2nd person P and G can also be done by using the person enclitic, as is illustrated in the data in (21).

	suffix		*enclitic*
21) a.	di=mä-**’a**(=’i)	~	di=mädi=**’i**
	PRS=love-2OBJ=2		PRS=love=2
	‘S/he loves you.’		
	‘S/he loves what is yours.’		
b.	bi=hant-**’a**(=’i)	~	bi=handi=**’i**
	PST=see-2OBJ=2		PST=see=2
	‘S/he saw you.’		
	‘S/he saw what is yours.’		

12 From Spanish *enfadar* ‘to bother’.

c. mí=té̱ñ-**’a**(=’i) ~ mí=té̱ni=**’i**
IMPRF=follow-2OBJ=2 IMPRF=follow=2
‘S/he was following you.’
‘S/he was following what is yours.’

It should be noted that formal differences that seem to be related to transitivity can be observed in some verbs of this section. In the data given in (22a), the 1st person suffix has initial /g/ in the monotransitive construction, while in the corresponding ditransitive construction has initial /k/. In (22b), the stem formative *+gi* of *tsógi* ‘leave’ is dropped upon taking the 2nd person suffix *-’a* ‘2OBJ’ in the monotransitive construction, while the same stem formative in *těge* ‘finish up’ alternates with *+ki* (with elided vowel) in the ditransitive construction with the same 2nd person suffix. Finally, the verb stem of *tai* ‘buy’ has a nasal segment (with epenthetic /p/ before the glottal stop) in the ditransitive construction in (22c).

22) a. pa-**ga**=gi vs. pa-**ka**=gi
sell-1OBJ=1 sell-1OBJ=1
‘S/he sells me.’ ‘S/he sells it to me.’

b. tso-’a=’i vs. tě**k**-’a=’i
leave-2OBJ=2 leave-2OBJ=2
‘S/he leaves you.’ ‘S/he finishes it up for you.’

c. tai=’i vs. ta**mp**-’a=’i
buy=2 buy-2OBJ=2
‘S/he buys you.’ ‘S/he buys it from you.’

The formal contrasts observed between the monotransitive and ditransitive constructions in (22) are the same Bartholomew (2010, p.507) reports as stem formative pairs for similar valency alternations in Hñähñu. As will be seen in §3rd person object, similar alternations can be found in transitive and ditransitive constructions with the 3rd person suffix.

3rd person object

The 3rd person suffix of in Hñähñu has three allomorphs, shown in Table 7 along with the morphophonological changes triggered in the verb stem according to its stem formative. The changes in Table 7 are comparable to those observed with the 1st and 2nd person suffixes.

Table 7 – Morphophonological changes with 3rd person suffix

allomorph	formative	change	example	suffixed example	
-ba/-bi	+i	→ /m/	tai	tam-ba(=bi)	‘s/he buys it from him/her’
	+nV		'ĕnä	'ĕm-ba(=bi)	‘s/he says it to him/her’
	+’mi	→ /’m/	na’mi	na’m-ba(=bi)	‘s/he hits him/her’
-pa/-pi	Ø	–	pa	pa-pa(=bi)	‘s/he sells it to him/her’
	+hV	→ Ø	mĭhi	mĭ-pa(=bi)	‘s/he borrows it from him/her’
	+fV		xifi	xi-pa(=bi)	‘s/he tells him/her’
	+di		'adi	'a-pa(=bi)	‘s/he asks him/her for it’
	+pi		'ĕpi	rí 'ñĕ-pa(=bi)	‘it is convenient for him/her’
	+’mi	→ /’m/	kó’mi	kó’m-pa(=bi)	‘s/he covers it for him/her’
	+’tsi	→ /’s/	ko’tsi	ko’s-pa(=bi)	‘s/he gives it back to him/her’
	+hni	→ /m/	pe̱hni	pe̱m-pa(=bi)	‘s/he sends it to him/her’
-ua/-ui	+gi	→ /k/	tsógi	tsók-ua(=bi)	‘s/he leaves it to him/her’
	+ki		hä́ki	hä́k-ua(=bi)	‘s/he takes it from him/her’
	+di	→ /t/	'bĕ̱di	'bĕ̱t-ua(=bi)	‘s/he$_i$ loses what is his/hers$_j$’
	+ti		'úti	'út-ua(=bi)	‘s/he shows it to him/her’
	+t’i		'o̱t’e	'o̱t-ua(=bi)	‘s/he makes it for him/her’
	+’ti	→ /’t/	ju’ti	ju’t-ua(=bi)	‘s/he pays him/her’
	+’tsi	→ /’ts/	kó’tsi	kó’ts-ua(=bi)	‘s/he spreads it on him/her’
	+ts’i	→ /ts/	'éts’i	'éts-ua(=bi)	‘s/he puts it on him/her’
	+ndi	→ /nd/	handi	hand-ua(=bi)	‘s/he$_i$ sees what is his/hers$_j$’
	+nV		pŏni	pŏnd-ua(=bi)	‘s/he changes it for him/her’

Source: Author’s elaboration adapted from Bartholomew (2010, p. 509-510)

Unlike 1st and 2nd person suffixes, the suffix *-ba*/*-bi* ‘3OBJ’ most often refers to participant G. This can be seen in many of the translations of the suffixed forms in Table 7, which include the object pronouns *it* and *him/her*. The only verbal form in Table 7 in which the suffix refers to P is *na’mbabi* ‘s/he hits him/her’; other verbs with stem formatives that follow this pattern are *pe̱pi* ‘work with/for’ and *no̱t’e* ‘oppose’. With the verb *'ĕpi* ‘be convenient’, the 3rd person suffix refers to a participant with thematic role A_{exp}.

As with 1st and 2nd person, verbs without stem formatives take the 3rd person enclitic *=bi* ‘3OBJ’, as can be seen in (23a), (23b), and (23c); verbs with the stem formative *+'ti* can also take the enclitic, as in (23d), but apparently this does not happen with the stem formative *+i* in (23e).[13]

[13] This is probably due to the fact that the enclitic tends to encode only participants with thematic role G, and the verb stem *tai* ‘buy’ can take two participants only (A and P); the ditransitive stem *tam-* ‘buy (from sb.)’ can take the enclitic (along with the suffix): *tam-ba**=bi*** ‘s/he buys it from him/her’.

23) a. kámfri(=**bi**) P, G
believe=3OBJ
‘S/he believes in him/her.’
‘S/he believes that from him/her.’

b. 'ótho=**bi** A_{exp}
there.is.not=3OBJ
‘S/he doesn’t have (it).’ (Lit. ‘there isn’t for him/her’)

c. di=mfáda=**bi** P
PRS=insist=3OBJ
‘S/he insists to him/her.’

d. di=pa’ti=**bi** G
PRS=heat.up=3OBJ
‘S/he heats it up for him/her.’

e. *tai=**bi**
buy=3OBJ
Intended reading: ‘S/he buys (it from) him/her.’

Verbs with morphophonological changes upon taking the suffix *-ba*/*-bi* ‘3OBJ’ also alternate with forms that only take the enclitic, as in (24). Unlike what happens with 1st and 2nd person, the enclitic *=bi* ‘3OBJ’ in these forms refers to a participant with thematic role G.

	suffix		*enclitic*
24) a.	di=mät-**ua**(=bi)	~	di=mädi=**bi**
	PRS=love-3OBJ=3OBJ		PRS=love=3OBJ
	‘S/he$_i$ loves what is his/hers$_j$.’		
b.	bi=hand-**ua**(=bi)	~	bi=handi=**bi**
	PST=see-3OBJ=3OBJ		PST=see=3OBJ
	‘S/he$_i$ saw what is his/hers$_j$.’		
c.	mí=té̱m-**ba**(=bi)	~	mí=té̱ni=**bi**
	IMPRF=follow-3OBJ=3OBJ		IMPRF=follow=3OBJ
	‘S/he$_i$ was following what is his/hers$_j$.’		

As it happens with the 1st and 2nd person suffixes, in verb forms with *-ba*/*-bi* ‘3OBJ’ there are valency alternations that seem to correlate with stem formative alternations (see Table 1 in §GRAMMAR NOTES). The verb *'bĕ̱di* ‘lose’ with stem formative *+di* in the monotransitive example (25a) takes the stem formative *+ti* (with elided vowel) upon taking the suffix *-ba*/*-bi* '3OBJ' in the corresponding ditransitive form. A similar alternation is observed in (25b) between *+gi* and *+ki*, and between *+i* and *+N* in (25c).

25)	a. 'bḛ̌di	vs.	'bḛ̌**t**-ua=bi
	lose		lose-3OBJ=3OBJ
	'S/he loses it.'		'S/he$_i$ loses what is his/hers$_j$.'
	b. tsógi	vs.	tsó**k**-ua=bi
	leave		leave-3OBJ=3OBJ
	'S/he leaves it.'		'S/he leaves it to him/her.'
	c. tai	vs.	ta**m**-ba=bi
	buy		buy-3OBJ=3OBJ
	'S/he buys it.'		'S/he buys it from him/her.'

Summary of object marking morphology

In §1st/2nd person object and §3rd person object I presented the most common morphophonological changes triggered in the verb by the person suffixes in Hñähñu, as well as the thematic roles to which they tend to refer: while the 1st and 2nd person suffixes can refer to either P or G, the 3rd person suffix refers to G in the vast majority of verbs; suffixes of the three grammatical persons may also refer to an A_{exp} participant. The person enclitics *=gi* '1', *='i* '2', and *=bi* '3OBJ' can refer to the same thematic roles of their suffix counterparts.

From the correlations between the stem formatives and the valency alternations shown in (22) (§1st/2nd person object) and in (25) (§3rd person object), it is clear that the allomorphy of the person suffixes is not directly conditioned by transitivity.[14] In Hñähñu, the allomorphs are rather conditioned by the stem formative, which in turn can alternate in pairs of monotransitive and ditransitive verbs.

Morphosyntactic tests

Verbs in Hñähñu (and in all Otomi languages) can overtly encode only one object. This participant's thematic role is either P or G, or even experiencer A, but never T. If the formal codification of participants in verbal morphology is considered, Hñähñu seems to have a primary object (or secundative) alignment (DRYER, 1986; HASPELMATH, 2005).

[14] As claimed by Hernández-Gómez (2008) and Palancar (2009) for Querétaro Otomi, and by Knapp (2008) for Mazahua.

However, other constructions seem to show a different alignment type. Noun phrases referring to participants S, A, P, G, and T do not receive case marking in any Otomi language, but the word order does show differences between P and G: in monotransitive constructions, the noun phrase that expresses P tends to occur in the immediate post-verbal position (VP), as is the case with T in ditransitive constructions (VT); the noun phrase that expresses the participant G usually comes after the noun phrase corresponding to T (when both phrases are overt). In a selection of texts from a corpus[15], 40 ditransitive constructions were identified with overt T and G noun phrases: 36 of these constructions (90%), containing both definite and indefinite themes and receivers, had the order VTG; the remaining 4 constructions (10%) had the order VGT. Among these last constructions with order VGT, 3 contained the verb *xifi* 'tell' and an indefinite T, and 1 had a T modified by a relative clause. According to these trends, the order VGT seems to be more marked than the order VTG order; the latter aligns P with T, in an alignment pattern known as direct object (or indirective; DRYER, 1986; HASPELMATH, 2005).

Reciprocal constructions are only accessible to thematic roles P and G, that is, they have a primary object alignment, as can be seen in the examples in (26). Examples of reciprocal constructions with A and P as co-reciprocants were introduced in §GRAMMAR NOTES. In the case of a ditransitive verb such as *tam-* 'buy (from sb.)' in (26a), the construction with the middle prefix *n-* 'MID' results in interpretations in which A and G are co-reciprocants, as is illustrated in (26b). The suffix *-ba* '3OBJ', which refers to 3rd person G in (26a), seems to be a reciprocal marker for participants with thematic role G (glossed here as "RECP") in (26b). This hypothesis is reinforced with examples such as (26c), in which the suffix occurs even with non-3rd person co-reciprocants.

26) a. *tambabi rá hmě* (A, G)
tam-ba=bi=rá hmě
buy-3OBJ=3OBJ=SG.3POSS tortilla
'S/he$_i$ buys him/her$_j$ (his/her$_j$) tortilla.'

b. *di ntamba hmě* (A=G)
di=**n-**tam-**ba** hmě
PRS=MID-buy-RECP tortilla
'They buy each other tortillas.'

c. *dí ntamba hmĕhu̱* (A=G)
dí=**n-**tam-**ba** hmě=hu̱
1.PRS=MID-buy-RECP tortilla=PL
'We (i.e. you and I) buy each other tortillas.'

15 That is, the examples from Hernández Cruz *et al.*'s (2010) dictionary and the New Testament books of Matthew, Luke, John, and Revelation (WTB, 2008).

In (26b) and (26c) the noun *hmě* 'tortilla' is incorporated to the verb by juxtaposition (see §GRAMMAR NOTES). The incorporation construction is only accessible to participants with thematic role T, as in the examples of (26b) and (26c), as well as to P, as was shown in the examples in (7) (§GRAMMAR NOTES); no examples of incorporation of G were found in the corpus, nor have they been reported in the literature.

According to the morphosyntactic properties described above, object alignment in Hñähñu is different according to the construction being considered: according to verbal agreement and the reciprocal construction, it follows a primary object pattern {P, G}, while according to the order of constituents and noun incorporation it follows a direct object pattern {P, T}.

Alignment in otomi

In this section I compare the morphosyntactic alignment of Hñähñu with that of Acazulco Otomi (HERNÁNDEZ-GREEN, 2015) and that of Querétaro Otomi (PALANCAR, 2009). The comparison of the codification of S in §O-verbs in Otomi revolves around semantics, verbal lexicon, and morphology. In §Object in Otomi I compare the morphosyntax of the codification of P in the three Otomi languages in terms of the morphosyntactic tests that have been applied to them and the interpretation that the authors have drawn from said tests.

O-verbs in Otomi

In the following paragraphs I overview the studies on O-verbs (i.e., those that encode S different from A) that have been carried out in Otomi languages: Querétaro Otomi (PALANCAR, 2008, 2009), Acazulco Otomi (HERNÁNDEZ-GREEN, 2015, 2018), and the data from Hñähñu presented in §SUBJECT ALIGNMENT.

On the one hand, for all O-verbs in all three Otomi languages, the participant S is always semantically non-agentive. This tendency is observed even in non-verbal predicates that take S markers analogous to those that are found in O-verbs (HERNÁNDEZ-GREEN, 2018). Although the size of the O-verb lexicon and the morphology of S marking in such lexemes can vary among Otomi languages (as will be seen in the following paragraphs), the O-verbs in the languages studied so far make up a fairly homogeneous class at the semantic level. Similarly, A-verbs (i.e., those that encode S the same as A) in Otomi languages are a heterogeneous class in terms of agentivity: they can include verbs with either agentive or non-agentive S.

On the other hand, very few cases of fluid verbs have been reported in the three Otomi languages mentioned above: only the verbs *solo* 'be alone', *ho̱nt'ä* 'be alone', *nzá̱tho* 'be beautiful', and *tse̱tho* 'be strong' in Querétaro Otomi (PALANCAR, 2008, 2009), all of which are stative; among these four verbs, only the last two have semantic contrasts between the accusative pattern and the non-agentive pattern. This situation contrasts with Hñähñu: the majority (14/19) of the verbs that follow the non-agentive pattern can also follow the accusative pattern; among these 14 fluid verbs, there is no semantic contrast between the accusative pattern and the non-agentive pattern.

Finally, the O-verbs of Hñähñu are morphologically distinct from the O-verbs in other Otomi languages. In Querétaro Otomi and in Acazulco Otomi, for example, the codification of a person in this verb class is done by means of suffixes or enclitics, depending on their morphological composition: verbs that consist of a root, or a root plus a stem formative, take a suffix, while the rest of the verbs (compounds, loans, verbs with other lexicalized suffixes/enclitics) take an enclitic (PALANCAR, 2009, p.318; HERNÁNDEZ-GREEN, 2015, p.77-83). In contrast, O-verbs (and fluids verbs) in Hñähñu always take the enclitic to encode person of S, regardless of their morphological composition, and none of them take person suffixes to encode S.

Object in Otomi

The object alignment in the three Otomi languages compared in this section has been described according to different morphosyntactic criteria. These methodological differences could be the reason why Querétaro Otomi has been described as a language with indirective alignment (PALANCAR, 2009), while Acazulco Otomi is claimed to have a secundative alignment (HERNÁNDEZ-GREEN, 2015).

Verbal agreement is the only morphosyntactic feature that has been considered in the analysis of all three Otomi languages compared. Uncontestably, person suffixes refer to participants with roles P or G in the three languages (see §OBJECT ALIGNMENT; PALANCAR, 2009, p.232; HERNÁNDEZ-GREEN, 2015, p.208). The reciprocal construction test has only looked into for Acazulco Otomi (HERNÁNDEZ-GREEN, 2015, p.188), and for Hñähñu (see §Morphosyntactic tests), while the word order criterion is only mentioned in the description of Querétaro Otomi (PALANCAR, 2009, p.18-19), and for Hñähñu (see §Morphosyntactic tests). The noun incorporation construction, which follows an indirective pattern in Hñähñu (see §Morphosyntactic tests), has not been considered in the descriptions of Querétaro Otomi and Acazulco Otomi.

The morphosyntactic tests used to describe object alignment in Hñähñu in §Morphosyntactic tests could be the answer to the question of why the systems of Querétaro Otomi and Acazulco Otomi have been described in such different ways in the literature. On the one hand, noun incorporation and word order follow an indirect pattern in Hñähñu, and it is precisely these two morphosyntactic tests that are absent in the descriptions of Acazulco Otomi; conversely, for the characterization of Acazulco Otomi, described as a secundative system, the author has taken into account the reciprocal construction, a construction that follows a secundative pattern in Hñähñu. The tests that have been applied to each language and the corresponding alignment type

({P, G} for secundative, and {P, T} for indirective) are shown in Table 8; the symbol "?" indicates that the test is not reported to have been applied in that particular language.

Table 8 – Morphosyntactic object alignment tests in three Otomi languages

	Hñähñu	*Acazulco*	*Querétaro*
a. verbal agreement	{P, G}	{P, G}	{P, G}
b. reciprocal	{P, G}	{P, G}	?
c. word order	{P, T}	?	{P, T}
d. noun incorporation	{P, T}	?	?

Source: Author's elaboration.

Based on these facts, one can hypothesize that Acazulco Otomi has been described as a language with secundative alignment because the morphosyntactic tests that have been applied correspond to constructions that "lean" toward a secundative pattern in Otomi grammar, and the tests that "lean" toward the indirective have not been applied. The case of Querétaro Otomi is similar: the reciprocal test (which "leans" toward the secundative) has not been applied, but the word order test (which "leans" toward the indirective) has. Subsequent investigations in Acazulco Otomi and Querétaro Otomi, applying the missing morphosyntactic tests in Table 8 (marked with "?"), could clarify the landscape in this respect.

The interpretation of the verbal agreement test in Querétaro Otomi as secundative, according to Table 8, has been done by me, and not by Palancar (2009). The author considers that the allomorphs that the suffixes surface as when attaching to the verb stem (which are very similar to those presented in §OBJECT ALIGNMENT for Hñähñu) reflect a formal difference between P and G. Palancar (2009) considers that this formal difference P ≠ G, together with the basic order of constituents, is enough to consider Querétaro Otomi as a language with indirective alignment. In contrast, my interpretation of the verbal agreement of Querétaro Otomi as secundative is based on the fact that P and G (and not T) are the thematic roles that have access to verbal agreement, since I assume that the formal differences between P and G markers are due to alternations of the stem formative of the verb, as I claim it occurs in Hñähñu, and not to formal differences between the codification of P and the codification of G *per se*.

Conclusions

In this paper, I have described the subject and object alignments in Hñähñu (or Mezquital Valley Otomi), and I have also compared some grammatical, lexical and semantic features of said alignment systems with the corresponding descriptions of two other Otomi languages: Querétaro Otomi and Acazulco Otomi.

The three Otomi languages compared in this study have split S in intransitive verbs, with at least two series of grammatical markers, one for A-verbs (which encode S the same as A), and the other one for O-verbs (which encode S different from A). Hñähñu is different from the other two languages in that the series of person markers for O-verbs (and for some non-verbal predicates) consists of enclitics only; in Querétaro Otomi and in Acazulco Otomi the analogous series includes both suffixes and enclitics. In Querétaro Otomi and in Hñähñu (but not in Acazulco Otomi) some fluid verbs have been identified, that is, verbs that pattern both with A-verbs and with O-verbs. At least in Hñähñu, the pattern of person marking with fluid verbs, either as an A-verb (i.e., in the verb proclitic) or as an O-verb (i.e., via a person enclitic), does not correlate with the agentivity status of S, but the accusative pattern (A-verbs) and the non-agentive pattern (O-verbs) are semantically indistinct. 14 fluid verbs have been identified in Hñähñu, and only 5 verbs that follow the O-verb pattern exclusively.

The class of A-verbs in the three Otomi languages compared in this paper contains verbs with both agentive and non-agentive S; in contrast, O-verbs and fluid verbs form a semantically more homogeneous class, since they all have non-agentive S. This last characteristic supports the position of considering Otomi languages as having semantic alignment (although A-verbs are rather a default class); similarly, this position is supported by the fact that the S-marking pattern of O-verbs is usually observed in non-verbal predicates as well.

With respect to object marking, in the three languages compared the participants with thematic role P or G are encoded in (di)transitive verbs by means of person suffixes or person enclitics. In all three languages, the choice between suffix or enclitic depends on the morphological composition of the verb, although in Hñähñu there is also free variation of choice. Subsequent investigations could reveal whether there is any prosodic or stylistic factor underlying this variation.

The access of P and G, and not T, to the codification of person in the verb can be considered as a secundative feature in the three languages. Another secundative feature found in Hñähñu is that the reciprocal construction matches A to P or G as co-reciprocants, but never to T. In contrast, the word order and noun incorporation constructions in Hñähñu align P with T, and thus they rather follow an indirective pattern. Typologically speaking, it is not uncommon for different alignments to be observed for different constructions within the same language; there may be those who claim that it is even expected. However, the fact that secundative features are associated to verbal morphology (i.e., person suffixes, middle prefix), while indirective features are observed when the overt expression of a participant includes a noun (i.e., full noun phrase, noun incorporation), suggests that the rules of participant expression in a sentence in Hñähñu (or even in other Otomi languages) could be linked to other factors beyond thematic roles. This issue must be left for future research.

HERNÁNDEZ-GREEN, N. Alineamiento morfosintáctico del hñähñú (otomí del Valle del Mezquital). **Alfa**, São Paulo, v.64, 2020.

- *RESUMEN: Este trabajo describe los alineamientos de sujeto y objeto en hñähñú (u otomí del Valle del Mezquital), y compara algunos rasgos gramaticales, léxicos y semánticos de estos con las correspondientes descripciones del otomí de Querétaro y del otomí de Acazulco. El análisis se basa en la caracterización del alineamiento semántico por Mithun (1991) y Donohue (2008), y en la del alineamiento de objeto por Dryer (1986) y Haspelmath (2005); los roles temáticos son definidos siguiendo la nomenclatura de la tipología de relaciones gramaticales de Bickel (2012). Por el lado del alineamiento de sujeto, los sistemas de S escindido en las tres lenguas comparadas presentan dos clases de verbos intransitivos: verbos con S no-agentivo (verbos-O), y el resto (verbos-A). Las tres lenguas difieren en cuanto al tamaño del léxico dentro de la clase de verbos-O, y en el número de verbos fluidos; la morfología de los verbos-O presenta contrastes menores entre las lenguas. Por el lado del alineamiento de objeto, la caracterización mixta (i.e., con rasgos tanto indirectivos como secundativos) del sistema del hñähñú a partir de cuatro criterios morfosintácticos sugiere que la marcación de objeto en lenguas otomíes obedece a mecanismos que van más allá de los roles temáticos.*
- *PALABRAS CLAVE: Lenguas otomíes. Alineamiento morfosintáctico. Semántica. Lingüística Comparativa. Metaanálisis.*

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Received on October 11, 2018

Approved on March 12, 2019