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# Tenetehára: A predicate-fronting language

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#### **1.** INTRODUCTION

In Tenetehára<sup>1</sup> matrix clauses, it is observed that finite verbs can occur in absolute initial position, so that the following word order (1) is found in the language:<sup>2</sup>

 u-'u kuzà màg 3sG-eat woman mango 'The woman ate the mango.'

One of the problems posed by VSO clauses is how to derive them in light of a theory of phrase structure in which the subject is universally projected to the left of

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<sup>1</sup>Tenetehára is a language spoken in the northern region of Brazil by two indigenous groups: the Tembé and the Guajajára. The Tembé group lives on the border of the states of Maranhão and Pará and the Guajajára group lives in the state of Maranhão, According to Rodrigues (1986:39), the Tenetehára comprise approximately 7,100 people and belong to the Tupí-Guaraní family, Tupí Stock. For a detailed analysis of the syntax of Tenetehára clauses, see Duarte (1997, 2003, 2007).

<sup>2</sup>The following abbreviations are used in the glosses:

ABS	absolutive case	DISLOC	verbal affix indicating that a dis-
ARG	nuclear argument affix		located nuclear argument
CAUS	causative affix	EMP	emphatic marker
COMP	complementizer	ERG	ergative case
DET	determiner particle	EVID	evidential (a clitic used when the
DIM	diminutive		speaker is not an eyewitness)
DISC	discourse marker	FUT	future tense
DPASS	distant past	GEN	genitive case

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VP. Kayne (1994) argues that the core properties of phrase structure are necessarily determined by hierarchical relations. This theory predicts that a head will always project its specifier on the opposite side of its complement due to the fact that specifiers asymmetrically c-command the internal arguments in phrase structure. Kayne (p. 36) posits that specifier-head-complement is the universal order for the subcomponents of a phrase such that, whenever a category X asymmetrically c-commands a category Y, the words dominated by X must precede the words dominated by Y. Based on these assumptions, the main purpose of this article is to examine the derivation of the VSO and SVO tensed clauses. Assuming Kayne's antisymmetry theory, I will propose that all clauses in Tenetehára originate as SVO, as shown in the structure in (2).



Here, CP is a label for the domain in which several categories can be present, such as force, topic, focus, and finiteness features in the sense of Rizzi (1997). Additionally, TP is the functional projection responsible for encoding features such as tense, mood, and aspect, while the v-VP complex is the level where thematic relations are established. The head  $T^0$  can be morphologically realized by the aspectual marker *kwez* and by the auxiliary *iko*, which occur as clause-final particles, as shown in (3) and (4). In addition, complementizers also appear in clause-final position, with the subject, verb, and object preceding them. Note that the head  $C^0$  can be morphologically realized by the final complementizer particles pa and *mehe*, as in (5) and (6).

(3) teko w-apy ko kwez kury people 3SG-burn farm IPAST now 'The people have burned the field.'

INT	intentional mood	PAST	past tense
IPAST	immediate or recent past	PERF	perfective
LOC	locative phrase	PL	plural marker
NOM	nominative case	PRED	predicate
NOML	nominalizer	PRES	present tense
OBL	oblique case	SG	singular
Q	yes/no question marker	TRANS	transitive verb
PART	particle with indefinite meaning	UDPAST	unattested distant past

See the appendix for comments on the orthography.

- (4) awa w-ekar tapi'ir iko man 3sG-look for tapir be 'The man is looking for tapir.'
- (5) a-ha [ka'i r-exak pà] kury
   1-go monkey ABS-see COMP then
   'I then went in order to see the monkey.'
- (6) w-enu he r-imiriko [ka'i Ø-ze'eg mehe] kwez<sup>3</sup> 'y waz r-ehe 3SG-hear my GEN-wife monkey ABS-whistle COMP that river side OBL-from 'My wife heard the monkey whistling while it was on that side of the river.'

These data indicate that the relative order of the tense and complementizer particles in relation to the main predicate is fixed. This constraint is evidenced by the fact that the aspectual marker *kwez* cannot precede the predicate, nor can it occur between the subject and the verb, as the ungrammaticality of the sentences in (7)–(8)demonstrates:

- (7) \*kwez teko w-apy ko kury IPAST people 3SG-burn farm now 'The people have burned the field.'
- (8) \*teko kwez w-apy ko kury people IPAST 3SG-burn farm now 'The people have burned the field.'

Taking into consideration the grammatical distribution of the aspectual marker *kwez* and the word order facts outlined thus far, another objective of this article is to find a unified answer to the following questions:

- i. Are the SVO-T<sup>0</sup> and VSO orders achieved by predicate-fronting?
- ii. Are these word orders the result of head movement and if so, movement to what head position?

I argue that Tenetehára is a predicate-fronting language in a way that is quite similar to languages such as Niuean, Malagasy, Chol, and Seediq, among others. One piece of evidence in favor of this analysis is the fact that Tenetehára presents tense and complementizer particles in sentence-final position. Based on these assumptions, the goal is to determine the landing site of the predicate in the particle-final constructions shown above.

The article is organized as follows. Section 2 introduces some theoretical assumptions on the derivation of the VSO order. Section 3 presents the relevant data on word order and person inflection. The analysis shows that Tenetehára has a Split-S system. Section 4 outlines the properties of object shift and the derivation of VSO order. It is argued that VP-fronting occurs, rather than head movement of the verb to  $C^0$ . Sections 5 and 6 discuss some empirical evidence in favor of the analysis that the head-final characteristic of Tenetehára is the result of cyclic predicate raising to

<sup>&</sup>lt;sup>3</sup>The demonstrative *kwez* 'that' is homophonous with the recent past marker *kwez*.

specifier positions. This explains why several final particles are stranded in lower positions in the clauses. Section 7 aims to show that the difference between the OV and VO orders is directly related to the fact that the verb performs short movement only up to  $Abs^0$  in the embedded OV clauses, whereas it moves up to the head  $v^0$  in the OV clauses. Section 8 concludes the article.

# 2. THEORETICAL ASSUMPTIONS

Over the past two decades, research on the syntax of V-initial languages (Carnie 1995; Bobaljik and Carnie 1996; McCloskey 1996; Carnie et al. 2000; Doron 2000; Chung, 2005, 2006; Massam, 2000, 2005; Coon, 2010)<sup>4</sup> has concluded that there are at least three types of VSO languages. In one group it is assumed that the verb need not move to the CP domain to be in initial sentence position. In this approach, the V-initial order is achieved by head movement of the verb to the highest inflectional projection below C<sup>0</sup>. In line with this approach, verb movement in V-initial languages is similar to that of Romance languages, where the finite verb is raised into  $T^0$ , never higher, in unmarked declarative sentences. McCloskey (1996, 2000), for example, proposes that the derivation of VSO order in Modern Irish involves V-to-I movement only. Furthermore, he posits that the subject DP moves to a position outside the VP, but lower than the position of the verb. He argues that there are at least two functional projections between V and C, "the uppermost of which hosts the verb, and the lower of which hosts the subject DP, which has moved out of the VP as well" (McCloskey (2000:3). Evidence in favor of this analysis comes from the fact that the VSO order in Modern Irish is not restricted to appearing only in root or unselected clauses, a fact that has led McCloskey to argue that, in embedded clauses, the finite verb moves only to T<sup>0</sup> and no further, since the complementizer position is already filled by the complementizer go:

(9) Modern Irish:

ceapaim go bhfaca se an madra think-PRES-1SG that see-PAST he-NOM the dog 'I think that he saw the dog.'

A second group of VSO languages shows raising of the verb to the complementizer head, similar to raising in V2 languages. According to this analysis, in both V2 languages and VSO languages, there occurs a generalized I-to-C fronting as a result of a morphological requirement that the complementizer position be filled in tensed matrix clauses. This property, in turn, forces the finite verb to move up to the head  $C^0$ in V2 languages and possibly in some VSO languages. In these languages, the subject is usually moved from its internal vP position to the specifier of TP, so as to have its nominative Case checked. Despite the similarity between V-initial languages and verb-second languages, I-to-C fronting in VSO languages is not followed by movement of an XP constituent to the first position. The hypothesis assumed by some scholars (see McCloskey 1996 and Carnie et al. 2000) is that VSO languages reflect

<sup>&</sup>lt;sup>4</sup>It is important to point out that all of these authors assume Kayne's (1994) antisymmetry hypothesis.

a sort of underdeveloped verb-second language.<sup>5</sup> In other words, these subtypes of VSO languages present a weak verb-second effect, due to the fact that the head  $C^0$  does not enter the derivation with an EPP feature to be checked. Consequently, since the head  $C^0$  lacks an EPP feature, the specifier of CP need not be filled.<sup>6</sup> Accordingly, a sentence from Old Irish like (10) is derived with a numeration that does not include the EPP feature.

(10) Old Irish:

a. beirid in fer in claideb carries.3SG.ABS the man the sword 'The man carries the sword.'

b.  $[_{CP} \text{ beirid}_i + C^0 [_{IP} t_i [_{VP} \text{ in fer } [_{V'} \text{ in claideb}]]]]$  (Carnie et al. 2000:45)

A third group of VSO languages manifests raising of (a remnant) VP or equivalent to the specifier of the clausal head. According to Lee (2000), Massam (2000, 2005), Rackowski and Travis (2000), Chung (2005), Holmer (2005), and Coon (2010), the verb initial order in languages such as Zapotec, Niuean, Malagasy, Seediq, and Chol is not the result of head movement of the verb to some initial position, but rather reflects the raising of the verb phrase (or the predicate phrase) to some specifier position of a functional category above the v-VP complex. This proposal is normally known as the VP-raising approach. For example, Massam (2000) argues that VSO/VOS Niuean clauses are derived by means of movement of the remnant VP to Spec-IP, so that it can check the [PRED] feature of the clausal head. Massam argues that the [PRED] feature parallels the [D] feature prevalent in languages such as English and French. In this sense, the strict EPP nature of English is mirrored by the strict VSO nature of Niuean, so that [D] and [PRED] features are "in complementary distribution and can be seen as two reflections of a single EPP predication feature" (p. 111). One piece of evidence presented by Massam comes from the position of the verb in relation to tense particles and to core arguments. According to Massam (p. 99), the sentence initial particles can display tense and complementizerlike properties. Thus, the fact that the verb occurs below these particles signals that verb-fronting in Niuean does not involve fronting to the C/TP domain. Under this assumption, sentence-initial particles, which express the tense and aspect of the clause, belong to the CP domain, in that they display complementizer-like properties. Following Seiter (1980), Massam argues that their occurrence varies depending on the complementation status of the sentence. Therefore, the tense particle ne, in (11), is not base-generated in the head  $T^0$ , but in the CP domain.

(11) ne inu e Sione e kofe PAST drank ERG Sione ABS coffee 'Sione drank the coffee.'

<sup>&</sup>lt;sup>5</sup>Carnie et al. (2000:41) propose that in Old Irish the VSO order "is derived via head movement of the verb to  $C^0$ . There is a requirement that  $C^0 \dots$  be filled, but the specifier of CP need not be filled."

<sup>&</sup>lt;sup>6</sup>Doron (2000:86), following Chomsky (1995, 1998), proposes to view EPP "as a feature not just of T but of functional heads in general. This feature is not necessarily a lexical property of functional heads, but can be added independently into the derivation."

Based on examples like this, Massam proposes that the subject and the object in (12) move out of the VP for Case reasons. Consequently, what moves is the VP with the verb and the traces of the moved arguments. The VOS order has the same derivation, except for the fact that, when the object is an NP, it does not move out of the VP. Since the object does not move out of VP to check Case, it remains within the VP and is raised with the verb by predicate-fronting, as the derivation in (12b) shows.<sup>7</sup>

- (12) a. ne inu kofe a Sione PAST drank coffee ABS Sione 'Sione drank coffee.'
  - b. [ $_{CP}$ ne [ $_{IP}$  [ $_{VP}$  inu kofe] [ $_{IP}$  [ $_{AbsP}$  a Sione [ $_{VP}$ ]]]]

Coon (2010) proposes a similar analysis for deriving the VOS order in Chol. She argues that the VOS order in Chol is not base-generated, but is achieved through the movement of the vP predicate over the subject to the specifier of TP. Her proposal is based on the fact that full DPs, defined as noun phrases with overt material in  $D^0$ , cannot occupy the object position in VOS clauses. Therefore, the object must be a bare NP; otherwise the sentence is ungrammatical, as shown in (13b).

- (13) a. tyi i-kuch-u [NP si'] jiñi wiñik PERF 3SG-carry-TRANS wood DET man 'The man carried wood.'
  - b. \*tyi i-kuch-u [<sub>DP</sub> jiñi [<sub>NP</sub> si']] jiñi wiñik PERF 3SG-carry-TRANS DET wood DET man 'The man carried the wood.'

However, Coon (2010) argues that predicate-fronting in Chol is not connected with an EPP feature, as is assumed by Massam and Smallwood (1997) and Massam (2000, 2001). Instead, she proposes that predicate fronting in Chol is due to the fact that the language lacks head movement entirely. Based on these assumptions, Coon articulates the hypothesis that predicate-fronting in Chol is the result of two independent factors: (i) strong agreement features on  $T^0$  and (ii) a general absence of head movement in the language.

As will be shown in the next sections, Tenetehára behaves similarly to Niuean and Chol in that it also exhibits predicate-fronting in both VSO clauses and SVO- $C^{0}$ - $T^{0}$  clauses. Before details of the theoretical proposal are presented, the next section provides a general overview of some relevant grammatical facts related to word order and the status of person inflection in Tenetehára.

# 3. THE RELEVANT DATA

This sections aims to provide the reader with an overview of grammatical facts regarding the word order of the core constituents within sentences and nominal phrases. In addition, the grammatical status of nominative prefixes is also discussed.

<sup>&</sup>lt;sup>7</sup>I refer the reader to Massam's (2000) analysis in which she argues that the landing site of the VP is in a syntactic position between the C/Tense/Neg domain and the subject.

# 3.1 Order of the main constituents

In independent clauses, when the core arguments are present, the dominant order is VSO PP,<sup>8</sup> as shown in (14).

(14)	a.	o-'ok teko mani'ok 'y wi kury
		3sG-take people manioc water from now
		'The people took the manioc from the water.'
	b.	w-ekar teko wakari ita r-ehe
		3-get people catfish stone OBL-in
		'The people get the catfish in the stone.'

Additionally, most constituents of Tenetehára are head-final. For example, when the quantifier wa is used in order to indicate that more than one participant is present in the event, the determiner phrase (DP) must be placed before it. Compare example (15a) with (15b), where the quantifier occurs in head-final position, following the DP.

- (15) a. a'e kuzà she woman 'she, the woman'
  - b. a'e kuzà wà she woman PL 'they, the women [more than one woman]'

As well as the quantifier phrase shown above, the head of postposition and genitive phrases always occur in head-final position in linear order (16)–(17).

- (16) a. ko r-ehe field OBL-to 'to the field'
  - b. ko Ø-pupe field OBL-within 'within the field'
- (17) a. karaiw r-eko-haw non-Indian GEN-be-NOML 'the place of non-Indians'
  - b. awa Ø-hy man GEN-mother 'the man's mother'

Tense and complementizer particles occur in head-final position, usually following the main constituents of the predicate. This gives rise to the following word order in the constructions in examples (18)–(21).

(18) a'e-à u-'ar kwez tuzuk-pe she-ARG 3SG-fall IPAST mud-LOC 'She has just fallen into the mud.'

(Carvalho 2001:53)

<sup>&</sup>lt;sup>8</sup>Harrison (1986:408) argues that, although Guajajara is verb final in dependent clauses, the dominant order in independent clauses is VSO.

(19) a'e-à u-ur kwez he Ø-hy-ramo he-ARG 3SG-come IPAST I GEN-mother-TRANS 'He came with my mother (= by means of her).'

(Carvalho 2001:39)

- (20) a-ha [ka'i r-exak pà] kury 1-go monkey ABS-see COMP then 'I went to see the monkey then.'
- (21) sérgio w-exak [Pedro tapi'ir r-aro mehe] Sérgio 3SG-see Pedro tapir ABS-wait COMP 'Sérgio saw Pedro waiting for the tapir.'

Furthermore, when the complementizer and the tense particles co-occur in the same clause (22), the complementizer particles must precede the tense particles, which is possible in the head-final order:  $[OV-C^0-T^0]$ .

(22) w-exak awa ure-Ø-zur mehe kwez
 3SG-see man we-ABS-come COMP IPAST
 'The man has seen that we have just come.'

#### **3.2** The agreement system

Nominal phrases do not show morphological Case-marking to indicate the core grammatical relations of subject and object. Agreement for person is head-marked on the verb stem by nominative prefixes and by absolutive clitics. Note that absolutive clitics usually mark the internal argument of transitive verbs and the subject of stative verbs, whereas nominative prefixes encode the subjects of transitive and unergative verbs. The two sets are listed in Tables 1 and 2.

fuble 1. Rommun ve prenkes				
	Singular	Plural		
1st person	а-	<i>xi-lza-</i> (inclusive) <i>uru-</i> (exclusive)		
2nd person 3rd person	(e)re u- $\sim$ o- $\sim$ w-	<i>pe-</i>		

 Table 1: Nominative prefixes

Table 2: Accusative/absoluti	ve clitics
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	Singular	Plural
1st person	he-	<i>zane-</i> (inclusive) <i>ure</i> (exclusive)
2nd person	ne-	pe-
3rd person	i-	—
	h-	

Tenetehára is like other Tupí-Guaraní languages in that a person hierarchy determines occurrence of the person markers on the verb stem. In this hierarchy, first person is higher than second person, which is, in turn, higher than non-focal third

person. When the context presents two third persons, the focal third person outranks the non-focal third person. This hierarchy can be formally stated as follows:  $1 > 2 > 3^{\text{focal}} > 3^{\text{non-focal}}$ . It is important to note that there is just one verbal slot for person markers so that, when the subject is higher than the object in this hierarchy, the nominative prefix is triggered on the verb stem (23).

- (23) a. a-ro-ràm Purutu 1-wait-INT Purutu 'I will wait for Purutu.'
  - b. (e)re-aro-ràm Purutu
    2-wait-INT Purutu
    'You will wait for Purutu.'
  - c. w-exak Fábio Márcia
     3sG<sub>i</sub>-see Fábio<sub>i</sub> Márcia
     'Fábio saw Márcia.'

When the object is higher than the subject in the person hierarchy, the absolutive clitics are used to encode the object, thereby giving rise to an inverse system. This system is presented in (24), in which the clitics he and ne, and the prefix h- mark the object of first, second, and third persons, respectively.

- (24) a. he<sub>i</sub>-r<sub>i</sub>-aro-ràm Purutu 1-ABS-wait-INT Purutu 'Purutu will wait for me.'
  - b. ne<sub>i</sub>-r<sub>i</sub>-aro-ràm Purutu
     2-ABS-wait-INT Purutu
     'Purutu will wait for you.'
  - c. upaw Márcia; Fábio h;-exak-Ø
    all Márcia Fábio 3SG-see-DISLOC
    'All Márcia, Fábio saw.'
    [i.e., Fábio saw Márcia in every detail, not partially.]

In intransitive sentences, there is a split conditioned by the semantics of the verb. In this split, the absolutive/accusative clitics reference the subject of stative verbs, while the nominative prefix tends to mark the agent subject of unergatives (25).

- (25) a. he-r-upewyk 1-ABS-close the eyes 'I have dozed off.'
  - b. a-hyz 'y pe 1-run water to 'I ran to the river.'

Furthermore, the nominative prefixes display agreement in person and number with a lexical subject. A piece of evidence in favor of this analysis stems from the fact that the nominative prefixes can co-occur with a lexical subject, as shown in (26)–(27).

(26) a. ihe<sub>i</sub> a<sub>i</sub>-zuka-ràm zawar I 1-kill-int jaguar 'I will kill a jaguar.' b. a<sub>i</sub>-zuka-ràm zawar
 *pro<sub>i</sub>* 1-kill-INT jaguar
 'I will kill a jaguar.'

- (27) a. Pedro<sub>i</sub> o<sub>i</sub>-mo-no miar Siba pe Pedro 3SG-CAUS-go animal Siba to 'Pedro gave the animal to Siba.'
  - b.  $o_i$ -mo-no miar Siba pe  $pro_i$  3SG-CAUS-go animal Siba to 'He gave the animal to Siba.'

In sum, due to the fact that DPs (and pronouns) are not in complementary distribution<sup>9</sup> with the nominative prefixes, I will assume henceforth that the status of nominative person inflection is not ambiguous: it is agreement. I leave aside for the moment the discussion as to whether the accusative/absolutive clitics are agreement or not. I will assume that their main role is to encode the person features of transitive objects and stative (intransitive) subjects, in both independent and subordinate clauses.

# 4. VSO IS THE RESULT OF VP REMNANT MOVEMENT

This section aims to examine the derivation of VSO independent clauses. In these clauses, it is common for a set of second position particles such as *zekaipo*, *zekwehe*, and *kakwez*<sup>10</sup> to appear between the verb and the subject. In Tenetehára, speakers

- (i) šuft-uh 'I saw him.'
- (ii) šuft il-walad I saw the boy 'I saw the boy.'

The Egyptian Arabic data thus contrasts with the Tenetehára data.

<sup>10</sup>These particles are composed of two parts: the clitic *ze* plus the particles *kwehe* and *kaipo*. The evidential clitic *ze*, here translated as 'they say/said that', occurs mainly in mythical stories, where the speakers usually report events that they only heard about and did not directly experience. According to Bendor-Samuel (1972:150–151), this clitic indicates the speaker is not an eyewitness. *Kaipo*, in turn, originates from the grammaticalization of two different words: *kwehe* + *aipo* > *kaipo*. Note that *aipo* is only used when the speaker is not sure about whether the event has really happened or not. This is the reason why it is often used in yes/no questions, as follows:

(i) aipo Zuze u-'u uhaQ John 3SG-eat crab'Did John eat crab?'

<sup>&</sup>lt;sup>9</sup>Jelinek (1989) argues that agreement is clearly absent in languages in which person inflection and lexical arguments are mutually exclusive. This is the situation with the object suffix *-uh*, 3SG.M in Egyptian Arabic. This suffix does not function as agreement, as it cannot co-occur with the lexical object:

usually distinguish between attested and unattested past. For this reason, *zekwehe* and *zekaipo* are inferred as unattested and distant past, while *kakwez* indicates that a past event is attested by the speaker. Compare (28) and (29).

## (28) Unattested distant past:

- a. w-exak ze-kwehe zawar-uhu tapixi memyr a'e pe no 3SG-see EVID-UDPAST jaguar-big rabbit son there at also '(They say that) the big jaguar also saw the rabbit's son there.'
- b.  $u_i$ -m-ur ze-kaipo  $i_j$ -hy<sub>i</sub>  $i_j$ -zupe  $3SG_i$ -CAUS-come EVID-UDPAST his<sub>j</sub>-mother<sub>i</sub> him<sub>j</sub>-to 'His mother apparently gave (it) to him.'
- (29) Attested distant past:

a-exak kakwez ka'i ihe 1SG-see DPASS.ATTESTED monkey I 'I saw the monkey.'

However, when an XP occurs in immediate initial position or is topicalized to the left, the verb tends to appear after the temporal particles. In such contexts, the verb usually follows the subject, and the order [XP [*zekwehe* SVO] emerges:

- (30) a. na'e ze-kwehe zu'i<sub>i</sub> u<sub>i</sub>-ze'eg w<sub>i</sub>-emiriko pe kury then EVID-UDPAST toad 3SG-speak his-wife to now '(They say that), then, the toad spoke to his own wife.'
  - b. na'e ze-kwehe he-Ø-miriko u-zapo paw 'y pihun kury then EVID-UDPAST my-GEN-wife 3SG-make all water black now '(They say that), then, my wife made all the black coffee.'

When the subject is topicalized, the verb is positioned immediately after the temporal particle *zekwehe*, due to the fact that the subject comes in immediate initial position, as is shown in (31).

- (31) a. ku'em ze-kwehe o-ho kury the day evid-DPASS 3SG-go now '(They say that) the day dawned.'
  - b. a'e<sub>i</sub> zekwehe u<sub>i</sub>-r iko w<sub>i</sub>-ape rupi re'e it (the jaguar) DPASS 3SG-come be its-path through PART '(They say that) it (the jaguar) was coming along its path.'

The empirical facts just outlined above show that the verb and the topicalized XPs seem to be competing for some specifier position in the functional domain of

<sup>(</sup>ii) he'e, u-'u uha yes 3SG-eat crab 'Yes, he ate crab.'

the sentence.<sup>11</sup> Owing to this complementary distribution, the generalization that one can propose is that the verb precedes the subject only if nothing else is focused or topicalized to the CP domain. A way to give a more theoretical account for this restriction is to postulate that VSO clauses necessarily involve movement of the VP to some position above TP, while the subject and the object are left behind. Based on this, I will assume that temporal particles are sentential adverbials, which are merged in adjunction to the TP projection.<sup>12</sup>

(32)  $[_{CP} \dots [_{TP} zekwehe/zekaipo [_{TP} \dots [_{v-VP} \dots ]]]]$ 

For this reason, these adverbs will be used here as a diagnostic for setting the limit between the CP and TP layer in matrix sentences. According to this proposal, constituents that occur above the adverbials *zekwehe/zekaipo/kakwez* will be located in the CP area, whereas XPs located in a low position are in the vP domain. A piece of evidence in favor of this analysis comes from the fact that a finite verb and its internal argument cannot precede these adverbs. This demonstrates that the temporal particles cannot occur in a third or fourth position in the linear order. In sum, the syntactic distribution of *zekwehe/zekaipo/kakwez* shows that they are adjoined to a

<sup>11</sup>Note that the same restriction is also observed when the XP is a focalized object. In such a construction, the verb systematically follows the subject, thus OSV order emerges, and an inverse system is triggered. In this system, when the object is specific and quantified, it outranks the subject in the person hierarchy and the verb morphology is sensitive to this pattern. Thus, since the object outranks the subject in the person hierarchy, the agreement prefix used is not the nominative prefix *u*-, but the absolutive prefix  $\{i-\infty h-\}$ . Additionally, the word order changes from VSO to OSV. Compare the examples below:

- (i) a. u<sub>i</sub>-'u tenetehára<sub>i</sub> pira
   3sG-eat tenetehára fish
   'The Tenetehára people ate (some) fish (a specific one).'
  - b. upaw pira<sub>i</sub> tenetehára i<sub>i</sub>-'u-n
    all fish tenetehára 3SG-eat-DISLOC
    'The Tenetehára people ate all the fish.'
    [i.e., Everything was eaten; there are no leftovers.]
- (ii) a. w<sub>i</sub>-exak Fábio<sub>i</sub> Márcia 3SG-see Fábio Márcia 'Fábio saw Márcia.'
  - b. upaw Márcia; Fábio h<sub>i</sub>-exak-Ø all Márcia Fábio 3sg-see-DISLOC 'All Márcia, Fábio saw.'
    [i.e., Fábio saw Márcia in every detail, and not partially.]

The symbol  $\infty$  indicates that {i-} is an allomorph of {h-}. Their distribution is as follows: prefix {i-} only occurs when the stems begins with consonants, whereas the prefix {h-} is used when the stem begins with a vowel. The label absolutive is used here to capture the fact they can only encode intransitive subjects and transitive objects, never the subjects of transitive verbs.

<sup>12</sup>Following Bobaljik and Jonas's (1996) proposal, I will assume that sentential temporal adverbs can be adjoined to TP, while manner adverbs are v-VP-adjoined items.

functional projection in the inflection domain of the sentences. This restriction is shown by the unacceptability of the sentences in (33).

- (33) a. ??w-exak zawar-uhu ze-kwehe tapixi memyr a'e pe no 3sG-see jaguar-big EVID-UDPAST rabbit son there at also '(They say that) the big jaguar also saw the rabbit's son there.'
  - b. ??w-exak zawar-uhu tapixi memyr *ze-kwehe* a'e pe no 3SG-see jaguar-big rabbit son EVID-UDPAST there at also '(They say that) the big jaguar also saw the rabbit's son there.'

If this analysis is on the right track, it will allow us to propose that the derivation of V(adverb)SO order implies that there is VP-fronting, rather than head movement of the verb to  $C^0$ . In line with this, I will propose that the VSO order is the result of remnant movement of the VP to a specifier position in the left periphery of the sentence. Let's then assume that this projection corresponds to CP. Since only the verb fronts, a natural conclusion is that the object moves out of the VP before the VP moves. Based on these assumptions, I contend that the VSO clauses are derived by remnant movement of the VP to Spec-CP, as shown by the derivation in (34).



This derivation entails that the direct object moves to a specifier of some projection outside the VP and below the subject position. Following the essential core of Massam's (2000) and Coon's (2010) proposal, I argue that the FP projection of the derivation above corresponds to the AbsP, which is the functional projection that hosts the shifted object in the VSO clauses. This analysis differs slightly from Rackowski and Travis's (2000) proposal in the sense that AgrOP projection will not be assumed here. The purpose of the next subsection is to examine the derivation of VOS clauses in order to present more empirical evidence in favor of the analysis developed in this section.

# 4.1 The derivation of VOS orders

In addition to VSO constructions, VOS clauses also occur in Tenetehára. These clauses are used when the speaker wants to emphasize the event denoted by the predicate. In such constructions, the object is not accompanied by modifiers, such as demonstratives, adjectives, or numerals. Based on this, a natural conclusion is to posit that the object does not raise out of the VP during the derivation, giving rise to the VOS word order. The object is presumably a nonspecific bare NP, as is shown in (35).

(35) VOS order:

- a. o-mono tata teko h-ehe kury
  3SG-put fire people 3SG-in now
  'The people put fire in it (the field) now.'
- b. w-apy ko teko kury
  3SG-burn field people now
  'The people burned (the) field now.'
- c. u-dapo tyràm teko kury 3sG-make mani'ok people now 'The people made manioc now.'

Based on these data, I posit that the derivation of the VOS order involves VPfronting to Spec-CP. In this context, what is raised is not just the object, but the whole VP, a situation that explains why the object has to appear within the VP in VOS clauses, as the derivation in (36) demonstrates.



However, when the word order is VSO, the object can be quantified by stem reduplication, as in (37a), or co-occurs with demonstratives and adjectives, as in (37b) and (37c). In such contexts, the degree of specificity of the object is higher than that of the nonspecific objects of the VOS clauses.

(37) VSO order:

- a. u-zuka teko pira-pira-'i a'e mehe no 3SG-kill people fish-fish-DIM this time DISC 'The people killed a great number of small fishes.'
- b. u-zuka Xegi amo tazahu a'e mehe 3sG-kill Sérgio other pig this time 'Sérgio killed another pig in that time.'
- c. u'u Pedro pira ke'e kury 3sG-eat Pedro fish grilled then 'Pedro ate grilled fish.'

Interestingly, if the second-position adverbs *zekwehe*, *zekaipo*, and *kakwez* appear in the sentences in (37), they appear between the verb and the subject. This is further evidence that these adverbs occur in second position. Thus, the syntax of these adverbs favors the analysis that VSO orders are derived by VP movement to Spec-CP. Compare the examples in (37) with those in (38).

(38) VSO order:

- a. u-zuka *zekwehe* teko pira-pira-'i 3SG-kill EVID-UDPAST people fish-fish-DIM '(They say that) the people killed a great number of small fishes.'
- b. u-zuka *ze-kaipo* Xegi amo tazahu
   3SG-kill EVID-UDPAST Sérgio other pig
   'Sérgio apparently killed another pig.'
- c. u'u *kakwez* Pedro pira ke'e 3SG-eat DPASS.ATTESTED Pedro fish grilled 'Pedro ate grilled fish.'

One way to derive the word order difference of the above examples is to assume Diesing's (1992, 1996, 1997) hypothesis that a definite object raises out of the VP, while an indefinite object remains in the VP. In the literature, it is normally assumed that this contrast has to do with the mapping from syntax to semantics, so that object shift usually depends on information structure, in particular something like the contrast between specific and nonspecific.<sup>13</sup> For this reason, the VSO sentences in (38) must have the following derivation (39):



In the next section, I adopt the predicate-raising hypothesis to derive tense sentence-final particles in independent clauses. The hypothesis assumed is that the head-finality in these constructions is a direct reflex of the fact that Tenetehára is a predicate-fronting language.

<sup>&</sup>lt;sup>13</sup>For a detailed analysis of object shift in other languages, I refer the reader to the work of Bobaljik and Thráinsson (1998) and Rackowski and Travis (2000).

## 5. PREDICATE-RAISING AND HEAD-FINALITY IN INDEPENDENT CLAUSES

Tenetehára presents a set of final particles that are related to the aspectual and temporal meaning of the sentence. They systematically occur after the predicate (the verb and its core arguments), thus giving rise to SVO-Tense constructions. For example, the particles kwez and ra'e indicate that the action is recent or has just been completed. The particle ra'e is usually employed in interrogative sentences, while the particle kwez appears in affirmative clauses.

- (40) a. amo u-màno kwez somebody 3-die IPAST 'Somebody has just died (= the death was recent).'
  b. teko w-apy ko kwez kury people 3SG-burn farm IPAST now 'The people have just burned the field.'
  - c. ma'e pe Zuze w-enu tazahu ra'e what at John 3SG-hear big pig IPAST 'Where did John just hear the big pig?'

Additionally, two other final particles can convey the temporal meaning of the sentence: the particle *nehe* encodes future time without differences of temporal settings and the auxiliary *iko* conveys imperfective aspectual meaning. Both appear systematically after the predicate.

- (41) a. a'e ae u-mu-me'u-putar wa-n-emiapo-kwer *nehe* he EMP 3SG-CAUS-speak-want 3PL-ABS-make-PAST FUT 'He will tell what they have made.'
  - awa w-ekar tapi'ir *iko* man 3SG-look for tapir be 'The man is looking for tapir.'

One way of accounting for the occurrence of these particles in final position is to posit that they are syntactic heads that are base-generated in the head  $T^0$ . In line with this view, I argue that the SVO-Tense constructions are achieved by means of predicate-fronting to Spec-TP. Evidence in favor of this analysis comes from the fact that the tense marker particles have a fixed position in the linear order. For example, the particle *kwez* cannot be topicalized, as in (42a), nor can it occur in medial position, separating the subject from its verb, as in (42b).

- (42) a. \*kwez teko w-apy ko kury IPAST people 3SG-burn farm now 'The people have just burned the field.'
  - b. \*teko kwez w-apy ko kury people IPAST 3SG-burn farm now
     'The people have just burned the field.'

A second piece of evidence comes from the syntactic behavior of the particles *ra'e* and *nehe*, which have the same syntactic distribution as the particle *kwez*. The hypothesis is reinforced by the fact that they cannot occur between the verb and its

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object, nor can they be topicalized to the left, nor can they come after the subject, as the examples in (43) demonstrate.

- (43) a. \*ma'e pe Zuze w-enu ra'e tazahu what at John 3SG-hear IPAST big pig 'Where did John just hear the big pig?'
  - b. \*ma'e pe Zuze ra'e w-enu tazahu what at John IPAST 3SG-hear big pig 'Where did John just hear the big pig?'
  - c. \*a'e ae u-mu-me'u-putar nehe wa-n-emiapo-kwer
     he EMP 3SG-CAUS-speak-want FUT PL-ABS-make-PAST
     'He will tell what they have made.'
  - d. \*nehe a'e ae u-mu-me'u-putar wa-n-emiapo-kwer
     FUT he EMP 3SG-CAUS-speak-want PL-ABS-make-PAST
     'He will tell what they have made.'
  - e. \*a'e ae nehe u-mu-me'u-putar wa-n-emiapo-kwer he EMP FUT 3SG-CAUS-speak-want PL-ABS-make-PAST 'He will tell what they have made.'

Similar distribution also holds for the auxiliary *iko*, which can only be positioned after the predicate, not before. This constraint explains why *iko* cannot occur in medial position between the subject and the verb, nor can it be topicalized to initial position (44):

- (44) a. \*awa *iko* w-ekar tapi'ir man be 3sG-look for tapir 'The man is looking for tapir.'
  - b. \*iko awa w-ekar tapi'ir
     be man 3sG-look for tapir
     'The man is looking for tapir.'

The only acceptable order, in all the examples examined above, is with the tense marker particles after the verb and its core arguments, which gives rise to the consistently SVO-Tense constructions. This empirical fact lends further support to our claim that the final tense markers *kwez*, *ra'e*, *nehe*, *iko* have a fixed position<sup>14</sup> in the

(i) aipo u-zeapo ra'a? Q 3-do IPAST 'Did he do (it)?'

As for the absence of agreement in the tense particles, one possible reason might be that agreement features tend to be spelled out lower in the structure—that is, in the head of the v-VP projection.

 $<sup>^{14}</sup>$ A reviewer wonders why these particles are syntactically inert, not governing a particular form of the verb, or showing any agreement. A possible reason might be the fact that Tenete-hára does not exhibit head movement of the type found in the V2 languages. This explains, for example, why T<sup>0</sup>-to-C<sup>0</sup> movement does not occur in yes-no questions. In such contexts, the head C<sup>0</sup> is usually realized by interrogative particles, thereby blocking T<sup>0</sup>-to-C<sup>0</sup> movement:

linear order and are syntactic heads, base-generated in the head  $T^0$ . Given Kayne's antisymmetry theory (1994), in which all movement occurs to the left, and the internal subject hypothesis, one can postulate that the SVO-Tense order is derived from the basic order [Tense [SVO]]. Therefore, to derive the fact that  $T^0$  is head-final in these constructions, I assume that the predicate, represented by the v-VP complex, moves to the specifier of TP. Assuming that the object shift to Spec-AbsP occurs, the derivation of SVO-Tense construction is achieved in the following way: first, the lexical verb undergoes cyclical head movement from V-to-Abs<sup>0</sup>, accompanied by object movement to Spec-AbsP; second, the verb continues head movement up to the head  $v^0$ ; and, finally, the whole vP,<sup>15</sup> containing the categories AbsP and VP, raises to Spec-TP. The complete derivation is shown in the syntactic tree in (45).



Note that the derivation in (45) corroborates Holmer's (2005) typological prediction, according to which head-final particles tend to appear only in predicate-fronting languages, rather than in head-raising languages, such as Irish. Therefore, Tenetehára head-finality characteristics lend further support to this prediction, allowing syntactic heads to be stranded in clause-final position.<sup>16</sup>

## 5.1 Tenetehára as a counterexample to the Final-over-Final Constraint

In the analysis developed thus far, it is argued that the head  $v^0$  does not trigger movement of the AbsP-VP complex to its specifier position. This fact contradicts one of Biberauer et al.'s (to appear; henceforth BHR) claims that the VO-Aux order is not

<sup>&</sup>lt;sup>16</sup>Holmer (2005:186) predicts that the existence of final particles must be connected to basic order. In line with this view, he argues that one would expect final particles in VOS languages, but not in VSO languages that present head-raising. Thus, VSO languages like Irish, which are not predicate-raising, do not strand syntactic heads in clause-final position. To capture these facts, he proposes the following correlation:

	Movement type	XP-raising	X <sup>0</sup> -raising
(i)	Basic word orders	VOS, SOV, (some) VSO	(some) VSO
	Final particles	likely	unlikely

<sup>&</sup>lt;sup>15</sup>Or the whole VoiceP, if one prefers to adopt Kratzer's (1996) analysis.

attested in the world's languages. The alleged absence of the VO-Aux order is one piece of empirical evidence that led BHR to state the Final-over-Final Constraint (46):

(46) The Final-over-Final Constraint (FOFC):

If  $\alpha$  is a head-initial phrase and  $\beta$  is a phrase immediately dominating  $\alpha$ , then  $\beta$  must be head-initial. If  $\alpha$  is a head-final phrase, and  $\beta$  is a phrase immediately dominating  $\alpha$ , then  $\beta$  can be head-initial or head-final.

According to BHR (p. 5), the FOFC rules out structures where  $\alpha P$  is the complement of  $\beta$  and  $\gamma P$  is the complement of  $\alpha$  (47):

(47) \*[ $\beta P [\alpha P \alpha \gamma P] \beta$ ]

The reader might conclude that Tenetehára SVO-Tense order violates the FOFC, since the vP, which is selected by the functional head  $T^0$ , is clearly head initial. Tenetehára thus brings evidence against the claim that the schema in (47) is not found in the world's languages. Note that the reason why Tenetehára violates the FOFC has to do with the fact that, whereas the superordinate head  $T^0$  triggers movement of its complement, the complement of this same head, more precisely the head  $v^0$ , does not trigger raising of the Abs/VP complex to its specifier position.

In sum, the analysis advocated in this article shows that only the heads  $C^0$  and  $T^0$  have the property of moving their complement, whereas the head  $v^0$  does not trigger movement of its complement to its specifier position, thereby violating the FOFC. In the next section, I examine the grammatical status of complementizer particles that are stranded in the clause-final position of embedded clauses. The purpose is to provide more empirical evidence in favor of the analysis that Tenetehára is really a predicate-fronting language.

# 6. DERIVING HEAD-FINAL COMPLEMENTIZERS

In Tenetehára, subordinators are of two types: head-initial or head-final. When they are of the head-initial type, the word order is  $C^0$ -[SVO]-Tense, with the clause remaining between the complementizer and the tense markers, as is shown in (48).

(48) *aze* dawar *u*-zuka ka'i *nehe* Siba u-pyhyk-ràm ka'i o-ho i-zuwi if jaguar 3SG-kill monkey FUT Siba 3SG-take-INT monkey 3SG-go 3SG-for 'If the jaguar kills the monkey, Siba will take the monkey for himself.'

However, if the subordinator *aze* is in head-final position, the result is an ungrammatical construction. Hence, the impossibility of placing the predicate before the complementizer *aze* constitutes an important diagnostic to show that this particle is really head-initial, as in (49).

(49) \*zawar ka'i *u*-zuka <u>aze nehe</u>...
jaguar monkey 3SG-kill if FUT
'If the jaguar kills the monkey ...'

In contrast, a different clausal pattern emerges when the subordinators are of the head-final type. In such contexts, the object systematically precedes the verb and the whole predicate must appear to the left, giving rise to the word order [SOV]- $C^0$ , shown in (50).

- (50) a. w-exak awa [zawar ka'i *r*-aro *mehe*]
   3SG-see man jaguar monkey ABS-wait COMP
   'The man saw that/when the jaguar was waiting for the monkey.'
  - b. o-mo-no [mani'ok *r*-ytyk pà] kury
     3SG-CAUS-go manioc ABS-throw COMP now
     '(The people) put manioc into the water by throwing/pushing into the riverbank.'

Additionally, it is important to observe that the tense markers *nehe*, *iko*, and *kwez* are always positioned after the complementizer (51).

- (51) a. e-pyhyk ne-Ø-takihe [aguza i-zuka pà] nehe
   2SG-get your-GEN-knife rat 3SG-kill COMP FUT
   'Get your knife in order to kill the rat.'
  - b. Purutu w-exak
     Purutu 3sG-see
     'Purutu saw ...'
  - c. [zawar<sub>i</sub> tapi'ir u<sub>i</sub>-zuka *mehe*] *iko* jaguar<sub>i</sub> tapir 3SG<sub>i</sub>-kill COMP be
     ... Purutu saw that/when the jaguar was killing the tapir.'
  - d. Sergio he-r-exak [he-Ø-zur *mehe*] *kwàz* Sérgio me-ABS-see 1-ABS-come COMP IPAST 'Sérgio saw me, when I had just come.'

Since Tenetehára has a set of clause-final subordinators and puts tense markers<sup>17</sup> after them, I will assume that the SOV- $C^0$ - $T^0$  order of the subordinate clauses is derived from the basic  $C^0$ - $T^0$ -SVO order. This proposal, as in Kaynian work more generally, presupposes that the surface head-final order of the embedded clauses must be derived by successive leftward movement of the vP, first to Spec-TP, then, to Spec-CP. This movement operation is consistent with Kayne's hypothesis that, when a complement precedes a given head, it has to move to a position where it asymmetrically c-commands that head. The structure proposed in (52) instantiates it.

(i) a. a-ker
1-sleep
'I sleep'
b. he-ker-haw
1-sleep-NOML
'the place of my sleeping'
c.\*a-ker-haw
3-sleep-NOML
'the place of my sleeping'

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<sup>&</sup>lt;sup>17</sup>One might argue that *mehe* could be considered a nominalizer or a determiner. A strong piece of evidence against such an analysis is the fact that Tenetehára grammar already provides the suffix *-how*, used exclusively in the contexts of nominalizations. Moreover, DPs and NPs do not allow the occurrence of nominative prefixes in the nominalized verb stem. Compare examples (ib) and (ic):



In sum, the derivation above entails the existence of cyclic predicate-raising in Tenetehára, giving rise to complicated structures in which several final particles are stranded in lower positions, such as the final complementizers *mehe/pà* and the tense final particles *kwez/nehe*. This analysis provides further evidence for Rackowski and Travis's (2000) analysis, according to which there can be no fixed number of instances of predicate raising in VP-raising languages.

The next section discusses the reasons why the verb remains in a lower position in the OV embedded clauses, as opposed to its position in the VO independent clauses. I will propose that this asymmetry has to do with the fact that the lexical verb moves only up to the head of AbsP in OV embedded clauses, while it moves up to  $v^0$  in SVO-T<sup>0</sup> clauses.

# 7. WHY DOES THE VERB REMAIN IN A LOWER POSITION IN EMBEDDED CLAUSES?

The reader might question why the word order of OV embedded clauses is fixed, while the word order in the independent clauses is flexible, being possible the SVO, VSO, and VOS orders. To account for this syntactic difference, I will argue that this asymmetry is directly connected to the extent of movement of the lexical verb in the v-VP complex in the OV- $C^0$  and SVO clauses. More precisely, I will hypothesize that the verb moves only to the head Abs<sup>0</sup> in OV embedded clauses, in contrast to SVO clauses, in which it can move up to the head v<sup>0</sup>. Evidence in favor of this analysis comes from the following empirical facts:

(ii) u-pyhyk pira; u<sub>i</sub>-ka'u mehe kury
3-get fish; 3<sub>i</sub>-get drunk COMP now
'(The people) get fish when they (= the fish) are drunk (= when they are dying).'

Here the ungrammaticality is caused by the nominative prefix *a*-, which cannot appear in contexts of nominalization, as in (ic). Nonetheless, nominative prefixes can appear in temporal constructions headed by *mehe*, showing that the *mehe* construction is verbal in nature. This is the situation in (ii), in which the nominative prefix *u*- appears on the verbal stem:

- i. The  $OV-C^0$  word order is fixed in the embedded clauses.
- ii. The appearance of the prefix *r* on the verb stem is a reflex of object shift to Spec-AbsP for Case reasons.

Based on the above correlation, one can conclude that the prefix *r*- occurs only when the object and the verb are in a Spec-Head relation within the AbsP. On the other hand, this prefix is never triggered in SVO, VSO, and VOS clauses because the object and the verb are not in a Spec-Head relation in AbsP, due to the movement of the verb up to the head  $v^0$  in SVO-Tense clauses and to VP-raising in VSO and VOS constructions. In the literature on Tupí,<sup>18</sup> it has been assumed that the prefix {r-} is directly connected to the adjacency of the internal argument, as follows (53):

(53) o-mo-no mani'ok r-etyk pà kury
 3SG-CAUS-go manioc ABS-throw COMP now
 '(The people) came (in order) to throw the manioc (by the river).'

What this shows is that the appearance of the prefix r- on the verb stem can be interpreted as the reflex of object raising to Spec-AbsP, followed by verb movement to the head Abs<sup>0</sup>, thereby creating the rigid OV order. This claim is corroborated by the fact that nothing can intervene between the object and the verb, nor can the word order change from OV to VO in the embedded clause. This prediction is borne out by the ungrammaticality of the sentences in (54).

(54)	a.	*o-mo-no	mani'ok *	kury r-etyk	pà
		3PL-CAUS-go	manioc n	ow ABS-throw	COMP
		'(The people)	came (in o	rder) to throw the	ne manioc (by the river).'
	b.	*o-mo-no	[*r-etyk	mani'ok pà]	kury
		3PL-CAUS-go	ABS-throw	manioc COMP	o now
	'(The people) came (in order) to throw the manioc (by the river)'.				

Interestingly, if the embedded predicate occurs as an independent clause, the verb precedes the subject and the object. In this case, the word order changes from (S)OV to VSO. Here, the verb morpheme used is the allomorph w- of the nominative prefix, which marks the subject, and not the absolutive prefix r-. Compare (55a) and (55b).

- (55) a. o-mo-no mani'ok<sub>i</sub> r<sub>i</sub>-etyk pà kury 3SG-CAUS-go manioc ABS-throw COMP now '(The people) came (in order) to throw the manioc (by the river)'.
  b. w<sub>i</sub>-etyk teko<sub>i</sub> mani'ok kury 200 throw recels manies new
  - 3sG-throw people manioc now 'The people threw the manioc (by the river).'

Based on the data presented in (55), one way to give a more theoretical status to the prefix r- is to posit that its occurrence is the morphological spell-out of the abstract Case assignment mechanism, established between the object and the verb

<sup>&</sup>lt;sup>18</sup>For details on the distribution of this prefix, I refer the reader to Payne (1994), Rodrigues (1996), and Seki (1990, 2000).

in a Spec-Head relationship within the AbsP projection. Under this hypothesis, I contend that the occurrence of the prefix {r-} should be interpreted as the reflex of a syntactic AGREE operation between a functional head  $F^0$  and a DP requiring structural Case. This proposal means that the DP in the c-command domain of  $F^0$  must obligatorily raise from within the lexical projection XP, in which it receives its  $\theta$ -role, to the Spec position of the functional projection FP in order for its structural Case to be checked, as shown in (56).



The most important aspect of this proposal is that it entails that the checking of the abstract Case of the object must necessarily occur in a Spec-Head configuration. Accordingly, FP will correspond to the AbsP projection, while XP is equivalent to the VP. Consequently, when the object moves out of the VP and lands in the Spec position of AbsP, the absolutive prefix  $\{r-\}$  is obligatorily spelled out to signal that the abstract Case of the object is assigned by the head Abs<sup>0</sup> and that the verb does not move out of the absolutive projection. This generalization accounts for the fact that no XP can break the syntactic adjacency of the object and the verb in the syntactic structure depicted in (57).



I will thus assume that the occurrence of the absolutive prefix  $r^{-19}$  on the verbal stem together with the fixed OV order of the embedded clauses can be used as a diagnostic to determine:

<sup>&</sup>lt;sup>19</sup>Note that the prefix r- can also appear in inalienably possessed nouns and in postpositions. Again, in such contexts, the prefix {r-} is directly connected to the adjacency of the internal argument, as follows:

- i. that objects do raise to Spec-AbsP to receive abstract Case;
- ii. that the verb moves only up to the head of AbsP and remains there throughout the derivation, explaining why SVO and VSO orders are banned from embedded clauses that exhibit final complementizer.

Finally, it is important to point out that the prefix *r*- is not part of the verb stem. A piece of evidence in favor of this analysis comes from the object incorporation construction in (58b):

- (58) a. o-ho pina r-etyk pà 3SG-go hook ABS-throw COMP 'He went to fish.' [lit.: 'He went to throw the hook.']
  - b. u-pina-etik
    3SG-hook-throw
    'He is fishing.'
    [lit.: 'He is throwing the hook.']

Here, the incorporated object *pina*, 'hook', does not trigger the prefix *r*- on the verb stem. This fact allows us to conclude that the prefix is not part of the verb stem. If it was, it would have to appear in every context, both in OV clauses and when the object incorporates into the verb. This is not the case.

In sum, it may be concluded that the difference between  $OV-C^0$  and SVO-Tense clauses is directly connected to the fact that the verb undergoes short movement to  $Abs^0$  in embedded OV clauses, whereas it moves up to the head  $v^0$  in SVO-Tense clauses. This accounts for the word order difference in the two constructions. As the reader may already have noticed, VSO and VOS clauses were put aside in the analysis above, due to the fact they do not involve head movement of the verb, but only VP-raising to Spec-CP.

- (i) karaiw r-àpyz
   non-Indian GEN-house
   'the non-Indian's house'
- (ii) kwarahy r-upi sun OBL-in 'in the sun'

The appearance of this prefix on nouns and postpositions can also be interpreted as the reflex of abstract Case assignment. In such configurations, abstract Cases correspond to the labels genitive and oblique, assigned by a functional projection FP located in the functional domain of the NP and the PP. Let's then assume that FP corresponds to an AgrP projection, which is responsible for assigning the genitive or oblique Case, as in (iii).

(iii)  $[_{AgrP} \dots [_{Agr} \dots [_{PP/NP} \dots ]]]$ 

Because of limitations of time and space, I will leave details of this analysis open for future investigation.

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#### 8. FINAL REMARKS

In this article, I assume that the derivation of the VSO order and the PRED- $C^{0}$ - $T^{0}$  order is not achieved by head movement of the verb, but by predicate-raising. I also propose that the landing site of the predicate can be the specifier position of either the head  $C^{0}$  or the head  $T^{0}$ , depending on the grammatical construction involved. In this respect, Tenetehára differs slightly from other predicate-fronting languages such as Niuean and Chol, regarding the landing site of the predicate. A way to capture the different landing sites of the predicate in Tenetehára is by the correlations in Table 3.

	VSO	VOS	SVO-T <sup>0</sup>	SOV-C <sup>0</sup> -T <sup>0</sup>
Types of predi- cate fronting	VP-frontin	g to Spec-CP	vP-fronting to Spec-TP	cyclical movement of the vP, first to Spec-TP, then to
Object shift Verb movement in the vP domain	yes no head mo	no ovement of the verb	yes cyclical head movement of the verb up to $v^0$	yes head movement of the verb only up to Abs <sup>0</sup>

Table 3:	Word	orders	in	Tenetehára
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Before closing, we need to determine what exactly triggers predicate-fronting in the several syntactic constructions analyzed thus far. To answer this question, I will assume that it is an EPP effect similar to that posited by Massam (2000, 2005) for deriving Niuean VSO sentences. This proposal entails that predicates must move due to the fact that the EPP feature is not [+D], but [+PRED] in VP-raising languages. Massam (2000) claims that predicate-fronting in such languages is the result of a different setting of an EPP parameter. EPP does not have a nominal [+D] feature in languages like Niuean, but a [+PRED] feature that needs to be checked in the narrow syntax. Following the essentials of this theory, I will thus propose that the syntactic feature that forces the predicate to be raised in Tenetehára is the presence of a [+PRED] feature, both in the head C<sup>0</sup> and in the head T<sup>0</sup>. This explains why Tenetehára grammar systematically strands tense and complementizer particles in clause-final position, giving rise, for example, to the OV-C<sup>0</sup>-T<sup>0</sup> word order in subordinate clauses, where there occurs a rolled-up interactive movement of the predicate first to Spec-TP and then to Spec-CP.

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# **APPENDIX: ORTHOGRAPHY**

Considering the phonemic pattern of Tenetehára, I adopt an orthography whose main purpose is to facilitate reading the data used in my analysis. The graphemes are the following:

- (i) consonants p, t, k, ', m, n, g, gw, k, kw, z, x, h, r, w
- (ii) vowels: a, e, i, o, u, y, à

The graphemes *g* and *gw* correspond respectively to velar phoneme /ŋ/ and the labiovelar /ŋw/; the grapheme *z*, to the occlusive alveolar /d/ and its variants [z] and [j]; the grapheme *x*, to the alveolar fricative /s/ and its variant [tʃ]; and the diacritic ', to the glottal phoneme /?/. Finally, the graphemes *y* and *à* correspond, respectively, to the high central vowel /i/ and the mid-central vowel /ə/.