THE SYNTACTIC STRUCTURE OF TZ'UTUJIL MAYA

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0. Abstract

In this paper, I examine the ordering principles of the post verbal argument noun phrases (NPs) of the K'ichean language of Tz'utujil. I show that the ordering principles are primarily a function of the properties of the NPs with the definiteness property predominant. But other NP properties, such as animacy, clause weight, proper/common status, and pronominal use all contribute to NP ordering principles. I demonstrate that verb initial word order with NPs of equal definiteness (excluding the unmarked NP) is ambiguous but still grammatical. Yet syntax cannot be ignored in the ordering of post verbal NPs. I prove that VSO word order is grammatical, although VOS is clearly preferred.

I scrutinize Tz'utujil focus particles, re-evaluate past analyses about Tz'utujil's preverbal foci, and propose ordering principles for contrastive focus (ConFoc) and negative focus (NegFoc). I propose that the Tz'utujil topic phrase is in [Spec, CP], rather than [Spec, IP]. This result better accommodates adverb adjunction than does the currently proposed Kaqchikel model. In addition, I establish that the preverbal foci of ConFoc and NegFoc are in [Spec, IP], and are ordered such that ConFoc precedes NegFoc obligatorily. I demonstrate that X-bar theoretic functional projections, which until now have been considered to encode only discourse related material or pragmatics, can, in fact, encode grammatical relations as well. The Tz'utujil data is compared throughout to the K'ichean sister language of Kaqchikel for typological reasons. Ultimately a phrase structure for Tz'utujil Maya within the theoretical paradigm of Lexical-Functional Grammar but using a revised general schema is proposed.

1. Introduction¹

In this paper, I shall examine the ordering principles of the post verbal argument noun phrases (NPs) of the K'ichean language of Tz'utujil. I shall look at the effect on ordering principles of the specific properties of NPs, in particular the property of definiteness. I shall also look at other NP properties, such as animacy, clause weight, and proper/common nominal status to see if they contribute to constituent ordering. I shall examine verb initial word order with NPs of equal definiteness, and I shall examine the

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Tz'utujil is a Mayan language spoken by about 100,000 people in Guatemala. This paper reports on the Tz'utujil dialect of San Pedro la Laguna, Lake Atitlán as spoken by Snr. Aku Kumatz. The paper uses the conventions of the national orthography, in which $\langle x \rangle = a$ voiceless alveopalatal sibilant (IPA [ʃ]), $\langle tz \rangle = a$ voiceless dental affricate (IPA [ts]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]), $\langle tz \rangle = a$ voiceless alveopalatal affricate (IPA [tf]),

Glosses use the following abbreviations: A = absolutive agreement marker, AF = actor focus, com = completive aspect, E = ergative agreement marker, completive aspect, completive aspect,

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effect, if any, of syntax in the ordering of post verbal NPs. I shall also investigate VSO word order, which has always been considered ungrammatical in Tz'utujil.

I shall also scrutinize Tz'utujil focus particles, re-evaluate past analyses about Tz'utujil's preverbal foci, and suggest ordering principles for contrastive focus (ConFoc) and negative focus (NegFoc). The nature of the functional projections of X-bar theory will be reexamined in light of the absolute binary distinction between functional and lexical projections. The Tz'utujil data is also compared throughout to the K'ichean sister language of Kaqchikel for typological reasons. Ultimately a clause structure for Tz'utujil Maya within the theoretical paradigm of Lexical-Functional Grammar but using a revised general schema will be proposed.

2. The interaction of definiteness and word order

Tz'utujil is described as a predicate initial language with a 'basic' word order of VOS (Dayley 1985). Verb initial word order suggests we can find sentence final grammatical subjects and sentence medial grammatical objects in a simple matrix clause with two post verbal noun phrases (NPs):

(1) X-uu-tz'et jun miix ja tz'i'. VOS com-3E-see det:one cat det:the dog
The dog saw a cat. (*A cat saw the dog.)

In terms of NP definiteness properties, the number of possible arrangements using VOS word order is surprisingly limited. I shall present all the post verbal NP options available to speakers.

Example (2) demonstrates that two post verbal argument NPs may both be unmarked for definiteness (cf. Dayley 1985:305 Ex.77a). Note that the subject in (2) can be determined through the lexical semantics of the verb and its NPs because the verb is not semantically reversible:

- (2) a. N-uu-tij wej tz'i'. VOS inc-3E-eat tortillas dog
 The dog eats tortillas.
 - b. N-kee-tij wej tz'ii'. VOS inc-3plE-eat tortillas dogs Dogs eat tortillas.

Dayley (1985:304) notes that, along with an unmarked (for definiteness) subject, an unmarked (for definiteness) object NP may be interpreted as definite:

(3) X-kee-tij tzyaq ch'ooyaa'.
com-3plE-eat clothes rats
Rats ate (the) clothes. Dayley:305 Ex.77a

At this point, I do not see how Dayley's (1985:304) interpretation of the definite object NP *tzyaq* 'clothes' as being a generic can viably co-exist with a subject NP of less than or

equal definiteness, for example the generic subject NP *ch'ooyaa'* 'rats.' Either way, if Dayley is correct, his sentence should be ambiguous but appears not to be.

The combination of an object NP unmarked for definiteness and a definite subject NP is also unambiguous and grammatical:

(4) a. N-uu-tij wej ja tz'i'. VOS inc-3E-eat tortillas det dog The dog eats tortillas.

b. N-kee-tij ixiim ja julee'tz'ii'. VOS inc-3Epl-eat tortillas det some dog-pl Some dogs eat corn.

But with an indefinite object and a subject unmarked for definiteness, the sentence is now ungrammatical:

(5) a. *N-uu-tij jun wej tz'i'. *VOS inc-3E-eat det tortilla dog (*The dog eats a tortilla.)

b. *X-uu-tz'et jun miix Ta Mari'y. *VOS inc-3E-see det cat Miss Maria (*Maria saw the cat.)

Yet (5b) becomes grammatical when the subject NP is marked as definite, as in (6):

(6) X-uu-tz'et jun miix ja Ta Mari'y. VOS inc-3E-see det cat det Miss Maria Maria saw a cat.

Example (7) shows an optimum distribution of NP definiteness in the predicate initial form: the object NP is indefinite and the subject NP is definite:

(7) X-uu-tz'et jun tz'i' jar Aa Xwaan. VOS inc-3E-see det dog det Mr. Juan (The) Juan saw a dog.

Another preference for post verbal NP word order in Tz'utujil is for animates to follow inanimates and for proper nouns to follow common nouns.

Example (8) illustrates, in a predicate initial clause, a common noun *jun miix* 'a cat' followed by a proper noun *Ta Mari*'y:

(8) X-uu-tz'et jun miix ja Ta Mari'y. VOS com-3E-see det cat det Miss Maria Maria saw a cat.

It is not ungrammatical to use VSO word order with a proper noun subject NP and a common noun object NP, as in (9) because of the overt difference in definiteness:

(9) X-uu-tz'et ja Ta Mari'y jun miix. VSO

com-3E-see det Miss Maria det cat Maria saw a cat.

although VOS word order is preferred to VSO.

Dayley (1985:303-4) claims that a predicate initial clause with two post verbal third person NPs that have identical properties of definiteness is ungrammatical.

Example (10a) demonstrates this with definite determiners and (10b) with indefinite determiners:

(10)	a.	*X-uu-ch'ey jar ixok jar aachi. com-3E-hit det woman det man (*The man hit the woman.)	VOS Dayley 305 (78b)
	b.	*X-uu-ch'ey jun ixok jun aachi. com-3E-hit det woman det man	VOS
		(*A man hit a woman.)	Dayley 305 (78c)

Yet in my research, I found that when two third person postverbal NPs are of equal definiteness, the result is ambiguity, not ungrammaticality as Dayley claims.

Example (11) demonstrates the ambiguity created with co-occurring definite and indefinite NPs: (11a) has two definite proper nouns while (11b) has two indefinite common nouns:

(11) a. X-uu-tz'et ja Ta Mari'y jar Aa Xwaan. V??
(Juan saw Maria./Maria saw Juan)
b. X-uu-tz'et jun tz'i' jun miix. V??
(A cat saw a dog./A dog saw a cat)

Both sentences in (11) are ambiguous because the listener cannot identify whom the acting subject or agent is. This is because the two post verbal NPs are similarly marked for definiteness.

Yet example (12), even though almost identical to (11a), is now totally unambiguous:

(12) X-uu-tz'et Ta Mari'y jar Aa Xwaan. VOS com-3E-see Miss Maria det Mr. Juan Juan saw Maria.

Example (12) is acceptable because the proper noun subject NP is definite and the proper noun object NP is unmarked for definiteness. Both postverbal argument NPs are easily identifiable in terms of grammatical relations because of their definiteness properties. That is, the NP $ta\ Mari'y$, unmarked for definiteness, is interpreted as the grammatical object. And the NP, $jar\ Aa\ Xwaan$, marked for definiteness with the determiner ja(r) 'the,' is easily interpreted as the grammatical subject.

It seems from these examples that it is not primarily syntax that determines the order of post verbal NPs but NP properties such as definiteness and proper/common status. It has been reported that the order of post verbal argument NPs in other Mayan languages is determined by the properties of the NPs (cf. Brody 1984, England 1991). Included amongst these NP properties are, for example, definiteness, clause weight or heaviness, animacy, and pronominality. The relevant NP property in the examples above is definiteness. Consequently in a simple matrix clause with two post verbal argument NPs, the NP property of definiteness operates in a hierarchically manner and is primarily responsible for determining the grammatical relations of the clause. However the role of syntax in determining NP ordering rules cannot be ruled out as we shall see.

3. Grammaticality of VSO word order in Tz'utujil Maya

In the following section, I shall prove that VSO is an acceptable word order in Tz'utujil. However it is not a preferred order and would be ranked lower than VOS in OT.

Dayley (1985:304) claims that the only ungrammatical word order in Tz'utujil is VSO. Dayley does not provide an example but the following should adequately illustrate his claim:

(13) *X-uu-ch'ey jar ixok jun aachi. *VSO (*The woman hit a man.)

Yet I have found that VSO word order is acceptable to my consultants under certain circumstances, contra Dayley (1985). These primarily include sentences with post verbal argument NPs that exhibit a clear definiteness hierarchy as well as clauses with heavy objects.

Before addressing these issues, it is fairly straight foreword to prove that VSO is a grammatical word order in Tz'utujil. As we have already seen in example (11), the following example, although grammatical, is ambiguous because of two possible meanings that are both equally valid:

(14)	a.	X-uu-tz'et jun tz'i' jun miix.	V??
		inc-3E-see det dog det cat	

b. A cat saw a dog.c. A dog saw a cat.VSO

If both of these two translations are grammatical, then in spite of their ambiguity, the second interpretation (14c) 'A cat saw a dog,' using VSO word order, is necessarily grammatical. This alone validates VSO word order as grammatical in Tz'utujil.

Continuing on then, heavy objects may be used in either VSO or VOS clauses. In (15), the heavy object is *ru-chi Ta Mari'y* '(the) cheek of Maria, a possessed noun phrase:

(15) a. X-uu-tz'ub'-aj ja Aa Xwaan ru-chi Ta Mari'y VSO com-3E-kiss-der det Mr. Juan 3E-cheek Miss Maria Juan kissed Maria on the cheek.

b. X-uu-tz'ub'-aj ru-chi Ta Mari'y ja Aa Xwaan VOS com-3E-kiss-der 3E-cheek Miss Maria det Mr. Juan Juan kissed Maria on the cheek.

In example (16), the heavy object is an embedded (object) complement clause:

(16) X-uu-b'iij ja Ta Mari'y... com-3E-say det Miss Maria

...chi Aa Xwaan x-uu-tz'et ruu-miix VSO comp Mr. Juan com-3E-see 3E-cat Maria said that Juan saw her cat.

Heavy subjects typically use SVO word order. In example (17), the object is *wey* 'tortillas' and the heavy subject is *Ja Ta Maria n-tior wi'* 'Miss Maria, who has a cold...':

(17) Ja Ta Maria n-tior wi' n-uu-tzak wey. SVO det Miss Maria inc-drip head inc-3E-make tortillas Maria, who has a cold, made tortillas.

Heavy subjects can also be used postverbally in a VOS sentence:

(18) N-uu-tzak wey ja Ta Maria n-tior wi'. VOS inc-3E-make tortillas det Miss Maria inc-drip head Maria, who has a cold, made tortillas.

Although heavy subjects can be used in both SVO and VOS sentences, heavy subjects using VSO word order are ungrammatical:

(19) *N-uu-tzak ja Ta Maria n-tior wi' wey. *VSO inc-3E-make det Miss Maria inc-drip head tortillas (*Maria, who has a cold, made tortillas.)

When the definiteness properties of the two post verbal NPs are clearly hierarchical, that is when there is an overt difference in NP definiteness, VSO word order is grammatical.

For example, when the subject NP is marked as definite and the object NP is marked as indefinite or is unmarked for definiteness, VSO is acceptable word order:

- (20) a. X-uu-tz'et jar Aa Xwaan jun tz'i'. VSO com-3E-see det Mr. Juan det dog Juan saw a dog.
 - b. X-uu-tz'et ja tz'i' jun miix. VSO com-3E-see det dog det cat The dog saw a cat.

In example (20), grammatical interpretation of post verbal grammatical relations is a response to the inherent NP properties of definiteness. In fact, if the definiteness

hierarchy and other properties of the NPs determine the grammatical relations of the clause, syntactically determined word order would now seem irrelevant. However this appears not to be entirely correct.

All things being equal, VOS word order is preferred to VSO word order. For example, when the object NP is either indefinite or unmarked for definiteness and the subject NP is definite, the preferred word order is predominantly VOS:

(21) X-uu-tz'et jun miix ja tz'i'. VOS com-3E-see det cat det dog
The dog saw a cat.

Consequently their appears to be a syntactically determined VOS ordering constraint, totally independent from but dominated by the ordering principles of the competing internal properties of the post verbal argument NPs. As a result, the syntactic ordering constraint would be featured lower than the NP definiteness constraint in the OT tableau.

In Kaqchikel, it has been reported that VSO word order is also grammatical (Broadwell 2000). In example (22), the independent pronoun *rija*' 'him' is the object NP and a possessed noun phrase *ru-tz'i*' *ri ala*' 'the boy's dog' is the subject NP:

(22) X-u-b'a ru-tz'i' ri ala' rija'. VSO (Kaqchikel) com-3E-bite 3E-dog det boy him
The boy_i's dog bit him*_{i/i}. Broadwell 2000

The grammaticality of VSO word order in Kaqchikel is completely in keeping with the Tz'utujil model. In fact, it is not uncommon for Mayan languages to allow all six word orders: for example, Yucatec (Durbin and Ojeda 1978), Tojolob'al (Brody 1982), K'iche' (Mondloch 1978), and other Maya languages permit all possible word order permutations.

4. Preverbal foci: contrastive focus (ConFoc) and negative focus (NegFoc).

I shall now examine the preverbal foci of contrastive focus (ConFoc) and negative focus (NegFoc) in Tz'utujil and compare them to their Kaqchikel equivalents. The results indicate that the two K'ichean daughter languages are remarkably similar structurally.

4.1 The Tz'utujil focus or clefting particle(s)

In Kaqchikel, the clefting particle (*ja*) is used when a subject is contrastively focussed. As a result, the verb obligatorily requires the actor focus voice.² In example (23), the subject NP is *ri a Juan* 'Juan' and the object is *wey* 'the tortilla':

(23) Ja ri a Juan x-tij-o wä'y. SV_{af}O (Kaqchikel) foc det Mr. Juan com-eat-AF tortilla
It was Juan who ate the tortilla. Broadwell 2000

² Aissen (1999a) was the first to name this construction the actor focus.

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But in Tz'utujil, the focus or clefting particle, ja(a') (Dayley 1985), is not always used with a contrastively focussed subject with obligatory actor focus:

- (24) Jun aachi x-k'aaxaan-in ja masaat.
 - det man com-hear-AF det deer
 - a. A man heard the deer.
 - b. It was a man that heard the deer

However the focus particle ja in tandem with a contrastively focussed subject may also be used to emphasize focus semantics. In example (25), my consultant uses a local alternative arjaa 's/he/it' in place of the standard focus article ja(r):³

- (25) a. Arjaa' Ta Mari'y ja x-oj-ow-i. SV_{af}O foc Miss Maria rel com-dance-AF-IV It was Maria that danced.
 - b. Arjaa' ja miix ja ma t-i-tij-ow-i ... foc det cat rel neg asp-ep-eat-AF-IV
 - ... ja b'aaq r-xiin ak'. SV_{af}O det bone 3E-RN:of chicken
 It was the cat that did not eat the chicken bones.

In example (25), there is little probability that the morpheme *arjaa*' is acting as a sentence initial topic pronoun.

Let us examine more closely the Tz'utujil focus particle ja. Dayley (1985) claims that the various uses of the morpheme ja(r), which include the definite article, the relative pronoun, and the clefting or focus particle, and combinations with other morphemes are ultimately derived from the third person independent pronoun, jaa', such that jaa' > ja(r) (optionally).

But Dayley confusingly refers to the ja(r) particle, even in identical contexts, as both a cleft and as a third person independent pronoun (also Dayley 1985:389).

Compare example (26), where Dayley (1985:232 Ex.39) categorizes *Jar* as a clefting particle:

(26) Jar oojoj jar ooq k'o waawe' pa tinaamit cleft 3Pro who 1plA be here prep:in town
It's us who are here in town Dayley:232 Ex.39

with example (27), where Dayley (1985:255 Ex.121) refers to *jar* as the definite determiner 'the':

(27) Jar oojoj ooq k'o waawe' det 3Pro 1plA be here We are here.

Dayley:255 Ex.121

Note in example (25b), the epenthetic i- between the potential aspect marker t- and the verb root -tij 'eat'

Note that the relative pronoun ja(r) 'who/what,' as in example (26), is used optionally in clefts.

Indeed Aissen (1992:75 Ex. 86) becomes entangled citing Dayley's data by claiming that *jaa*' 's/he/it' is acting as a sentence initial topic pronoun:

(28) Jaa' eskopéeta x-k'aq-b'eej ja chikop.
he shotgun com-shoot-IF det animal
It was a shotgun that he shot the animal with. Dayley:386

Although Aissen's core issue about continuing topics is correct, in my opinion the data, which she uses in example (28) to support it, is not.

Instead of using the standard Tz'utujil third person independent pronoun jaa' 's/he/it,' my consultant will occasionally employ (see example (25)) a local alternative arjaa' 's/he/it.' Possibly this is to more easily distinguish the homophonous standard focus particle ja from the definite article ja, which, when they co-occur, are immediately adjacent to each other.

Thus in a context of verbal actor focus morphology together with emphatic focus semantics—which are not necessarily related as we shall see—I propose the following generalization. The use of the preverbal third person independent pronoun *jaa* and any of its morphological derivatives are best semantically interpreted as a focus particle albeit one with multiple forms.

4.2 Contrastive focus and negative focus: a commentary on Aissen (1992, 1999b)

I would like to review Aissen's (1992:46, 46 fig.3, 72; 1999b:172, 191 fn.7) proposal about negation in Tz'utujil. This is necessary because her model of preverbal foci differs somewhat from the one assumed in this paper and thus should be addressed.

Aissen (1992:72) suggests that the negative particle *ma* follows the topic. Also the negative particle '*ma* precedes the [contrastive] focus' (bracketed material not in original). Aissen (1992:46, 46 fig.3, 72; 1999b:172) also proposes that the Tz'utujil negative particle *ma* is left adjoined to IP.

In example (29), the focussed NP is the unmarked noun *ch'ooy*, 'rat':

(29) Ma ch'ooy ta x-tij-ow-i ja kéeso. SV_{af}O neg rat irr com-eat-AF-IV det cheese
It wasn't a rat that ate the cheese. Dayley:322

In other words, Aissen (1992:72) interprets the *ma ch'ooy ta* 'not (a) rat' as a contrastively focussed NP that has been negated. The negative particle and the contrastively focussed NP are not in the same structural location in the constituent tree.

However Dayley (1985:322) claims that negated NPs themselves are best translated into English as cleft sentences, because that is how they are volunteered in

Spanish. So negated NPs translate best with focus semantics. But negated NPs are not situated in contrastive focus (ConFoc) according to Broadwell (2000) and others. Rather negated NPs are located in negative focus (NegFoc) and are necessarily preverbal. Aissen's model of preverbal focus, then, differs to some extent from the one assumed in this paper. Her theory of focus does not differentiate between contrastive focus and negative focus but rather melds them both into a single syntactic structural position. She does not seem to differentiate between them.

Consequently I propose that, in Tz'utujil Maya, there are two completely distinct preverbal foci of ConFoc and NegFoc. The negative particle *ma...(ta)* associates and combines with the negated NP, in example (29) the unmarked subject NP *ch'ooy* 'rat,' and are situated together in a single, preverbal structural position, which is NegFoc.

4.3 The actor focus voice

The actor focus voice has often been referred to as a detransitivizing construction (Aissen 1999a; Dayley 1985:347-358). However the verb may optionally retain both of its two direct arguments. Yet only one argument NP is actually cross-referenced on the verb and this is accomplished with the absolutive agreement marker. Which argument is actually referenced on the verb depends on the person hierarchy of the argument NPs.

An important feature of the actor focus voice is that the subject is obligatorily preverbal (Aissen 1992, 1999a; Dayley 1985):

(30) Jun tz'i' x-kop-in-i jar Aa Xwaan. SV_{af}O det dog com-bite-AF-IV det Mr. Juan A dog bit Juan.

Note that when in the actor focus voice, the subject, although obligatorily preverbal, may or may not be sentence initial.

The actor focussed subject NP may never follow the verb:

(31) a. *X-kop-in-i jar Aa Xwaan jun tz'i'. V_{af}OS com-bite-AF-IV det Mr. Juan det dog (*A dog bit Juan.)

b. *Jar Aa Xwaan x-kop-in-i jun tz'i'. OV_{af}S det Mr. Juan com-bite-AF-IV det dog (*A dog bit Juan.)

Dayley (1985:319 fn.8) claims that an indefinite, preverbal third person subject NP with an overt third person postverbal definite object NP obligatorily requires the use of either the actor focus voice or the passive.⁴

⁴ Dayley (1985) himself refers to the actor focus voice as the '(agent) focus antipassive.' But Smith-Stark (1978) proves that this special type of voice cannot be an antipassive.

Leaving aside the passive, an indefinite preverbal subject NP requires the actor focus voice. The following configuration is ungrammatical because it does not use the actor focus voice:

(32) *Jun tz'i' x-uu-kopiij jar Aa Xwaan. *SVO det dog com-3E-bite det Mr. Juan (*A dog bit Juan.)

This is an important feature of the actor focus voice construction. The actor focus voice allows indefinite subject NPs to be base generated in a preverbal position.

Also unacceptable is a preverbal indefinite subject NP and a postverbal indefinite object NP. In fact, this type of clause is unacceptable for two separate reasons. First it violates Aissen's (1999b) definiteness effect, and is therefore ungrammatical. Secondly although not ungrammatical, it is ambiguous about which NP argument represents the transitive subject:

(33) *Jun tz'i' x-uu-tz'et jun miix. ?V?

det dog com-3E-see det cat

(*A dog saw a cat./*A cat saw a dog)

4.4 The ordering of preverbal foci: ConFoc and NegFoc in Tz'utujil

As we have seen, a sentence with an indefinite subject NP and a definite object NP obligatorily require the actor focus voice with the subject preverbal (Dayley 1985):

(34) Jun aachi x-k'aaxaan-in ja masaat. SV_{af}O det man com-hear-AF det deer

A man heard the deer.

The object NP *ja masaat* 'the deer,' as used in example (35) in sentence initial position, functions as the topic NP (Aissen 1992, 1999b):

(35) Ja masaat jun aachi x-k'aaxaan-in. OV_{af}S det deer det man com-hear-AF
The deer, a man heard./A man heard the deer.

As we have seen when a NP is negated, it is obligatorily preverbal and translates as if it were a cleft sentence (Dayley 1985:322). If the negated NP is a subject, then it requires the actor focus voice. But negated object NPs require no special voice or special verbal marking. As discussed above, I assume that all negated NPs, including subject and object NPs, reside in NegFoc.

Example (36) demonstrates the negation of the preverbal indefinite subject NP as well as showing the object NP as the sentence initial topic. Because the subject is negated the actor focus is required. Note also that the object NP 'Ja masaat', as the sentence topic NP, is in the sentence-initial position:

(36) Ja masaat ma jun aachi ta x-k'aaxaan-in. OSV_{af} det deer neg det man irr com-hear-AF
The deer, it was not a man that heard [it]./

It was not a man that heard the deer.

In example (37), the object NP *ja masaat* 'the deer' has been negated and is thus obligatorily preverbal. Using actor focus morphology in this example would be ungrammatical because it is the object NP, not the subject, that has been negated:

(37) Ma ja ta ja masaat x-uu-k'aaxaaj jun aachi. OVS neg foc irr det deer com-3E-hear det man It was not the deer that a man heard.

Note also that, in (37), the indefinite subject NP *jun aachi* 'a man' is post verbal. This is because an indefinite transitive NP cannot be in the sentence initial or preverbal topic position:

(38) *Jun aachi ma ja ta ja masaat x-k'aaxaaj. *OSV det man neg foc irr det deer com-hear (*It was not the deer that a man heard.)

One explanation of this restriction on the topic NP is what Aissen and others has called the 'definiteness effect.' As defined by Aissen (1999b:170-174), the definiteness effect claims that, for transitive predicates with two third person argument NPs, the prepredicate (sentence initial or preverbal) topic NP must be definite, that is, identifiable. The definiteness effect is inviolable. It is theoretically formulated on Franz Brentano's (1924) concept of the categorical judgement: specifically a categorical versus a thetic assertion (cf. É Kiss 1995:7-14; 2002:14-20).

There is yet another reason for the indefinite subject NP being necessarily postverbal in example (37). And this will introduce us to the evidence for the correct ordering of the preverbal foci of ConFoc and NegFoc in Tz'utujil.

Example (39), which is ungrammatical, contains a preverbal negated object NP and an indefinite preverbal subject NP with the accompanying obligatory actor focus construction. Note that the subject NP *jun aachi* intercedes between the negated object NP *ma ja ta ja masaat* and the actor focus morphologically-marked verb *k'aaxaan-in*:

(39) *Ma ja ta ja masaat jun aachi x-k'aaxaan-in. *OSV_{af} neg foc irr det deer det man com-hear-AF (*It was not the deer that a man heard.)

In ungrammatical example (39), the subject NP *jun aachi* is necessarily in ConFoc because it is both preverbal and has triggered actor focus voice morphology on the verb. Note that the negated, preverbal object NP in NegFoc does not require the actor focus voice. The only conclusion is that the subject NP in ConFoc may not follow the object NP in NegFoc. We can conclude then that, in Tz'utujil, ConFoc may not follow NegFoc but instead, ConFoc must precede NegFoc.

I do not at present have a Tz'utujil example of ConFoc preceding NegFoc, but one taken from Kaqchikel is supportive of my argument. I fully anticipate this ordering of foci to be the same in Tz'utujil.

In (40), *Ja ri a Ramón* is the preverbal subject NP in contrastive focus while *man jun wä'y* is the negated preverbal object NP. Keep in mind that the actor focus is not used because it is an object NP that is being negated, not a subject NP:

(40) Ja ri a Ramón man jun wä'y x-u-tij. SOV (Kaqchikel) con the cl Ramon neg one tortilla com-3E-eat It was Ramón who ate no tortillas. RKC: 1:82

The opposite order in Kaqchikel is ungrammatical:

(41) *Man jun wä'y ja ri a Ramon x-u-tij.

neg one tortilla con the cl Ramon com-3sErg-eat

*(It was Ramon who ate no tortillas.)

Broadwell:17

In terms of ConFoc and NegFoc, the Kaqchikel model proposed by Broadwell (2000) in terms of OT constraints is that [-neg] precedes [+neg] and that they are both located in [Spec, IP]. For Tz'utujil, I propose a similar ordering model: that NegFoc and ConFoc are both located in [Spec, IP], and that ConFoc and NegFoc are ordered such that ConFoc precedes NegFoc, that is [-neg] precedes [+neg].

In Tz'utujil, when the sentence has a subject NP in the ConFoc position, which manditorily requires actor focus morphology, it is not possible to have a preceding object NP in an adjacent ConFoc position. In that situation, the object NP must be a topic. But Dayley (1985) claims that object NPs are completely excluded from being sentence topics. The inference is that there are two simultaneously occupied ConFoc positions. But Aissen (1992, 1999b) proves Dayley's claim incorrect by proving the first NP structural position is for topic, not focus.

Aissen (1992:74) places Tz'utujil sentential adverbs (temporal) after the topic position. Example (42) shows that the sentential adverb *ooxiij* 'in three days' follows the topic *Ja n-ata*' 'my father' and precedes the verb *n-b'e* 'goes':

(42) Ja n-ata' ooxiij n-b'e K'oqol Keej. det 1E-father in:three:days inc-go Masatenango In three days, my father is going to Masatenango. Dayley:275

But Aissen (1992:74) also claims that '...crucially, they [sentential adverbs] do not precede the topic.' This claim is at odds with my findings because sentential adverbs can, in fact, precede topic phrases, as shown in the following

In example (43), the topic phrase is *ja tz'i'* 'dog':

(43) *Iwiir* ja tz'i' x-uu-tz'et ja miix. AdvSVO yesterday det dog com-3E-see det cat Yesterday the dog saw the cat.

But although part of her argument of using adverb position is errant, Aissen's important, larger claim about the topic always preceding the focus is absolutely correct.

It is unclear to me how to implement an ordering of an adverb between topic and focus in the constituent tree that has been proposed for Kaqchikel by Broadwell (2000). If both the topic and the focus, appropriately ordered, are in [Spec, IP] as they are in the Kaqchikel model, it would be impossible to left adjoin an adverb to the IP that maintains the correct ordering of topic, adverb, and foci.

Accordingly I propose an amendment to Broadwell's Kaqchikel phrase structure model. The topic, instead of being positioned in [Spec, IP], would be in [Spec, CP]. This arrangement would accommodate adverb adjunction to IP. Additionally the topic would follow the complementizer (Comp) which would correctly predict their ordering of Comp preceding topic in both embedded and subordinate clauses.

5. Adverb placement and structural complexity

Following Broadwell (2000) and others, I argue that the predicate initial and argument initial word order manifest different syntactic structure. A principled way of capturing this difference is with markedness theory: it proposes a binary choice between either a higher or a lower level of complexity of structure. The syntactic structure with the least complexity is the unmarked structure. If a clause possesses more syntactic structure than the unmarked structure, it is considered marked. The violable constraint for building unnecessary structure in OT, here syntactic, is *STRUC.

It is possible to gain insight into the syntactic structure of the clause by analyzing adverb placement. Because adverbs are adjoined to maximal projections (Bresnan 2001), adverbs are somewhat constrained in their potential locations within the clause. We test first for predicate initial clauses then argument initial clauses, and a structural difference between the two clause types becomes quite evident.

With predicate initial clauses, such as VOS, adverb placement indicates that adverbs are found only at either the beginning (44a) or the end (44b) of the clause:

- (44) a. Iwiir x-uu-tz'et jun miix ja tz'i'. AdvVOS yesterday com-3E-see det cat det dog Yesterday the dog saw the cat.
 - b. X-uu-tz'et jun miix ja tz'i' iwiir. VOSAdv com-3E-see det cat det dog yesterday
 The dog saw the cat yesterday.

Crucially adverbs are not able to be inserted between the verb and its object NP:

(45) *X-uu-tz'et iwiir jun miix ja tz'i'. *VAdvOS com-3E-see yesterday det cat det dog (*The dog yesterday saw the cat.)

or between the object NP and subject NP:

(46) *X-uu-tz'et jun miix iwiir ja tz'i'. *VOAdvS com-3E-see det cat yesterday det dog (*The dog saw yesterday the cat.)

But with argument initial order, adverbs are unrestricted in their placement between the major clausal constituents:

- (47) a. Ja tz'i' iwiir x-uu-tz'et ja miix. SAdvVO det dog yesterday com-3E-see det cat The dog yesterday saw the cat.
 - b. Ja tz'i' x-uu-tz'et iwiir ja miix. SVAdvO det dog com-3E-see yesterday det cat
 The dog saw (yesterday) the cat.
 - c. Ja tz'i' x-uu-tz'et ja miix iwiir. SVOAdv det dog com-3E-see det cat yesterday
 The dog saw the cat yesterday.

In terms of structural complexity, the behaviour of preverbal and postverbal argument NPs seems identical to those in Kaqchikel (cf. Broadwell 2000). The predicate initial word order has its verb head and post verbal arguments as sisters under a non-endocentric, flat S(entence). But the preverbal argument generates a more hierarchical, endocentric structure under CP. It is therefore more marked due to the extra structure requirement of the CP functional projection.

6. Towards a phrase structure for Tz'utujil Maya

It is proposed by Aissen (1992; 1999b:169-72) that the syntactic structure of Tz'utujil includes a hierarchical verb phrase (VP). The grammatical subject NP is in [Spec, VP], the verb head and its complement the grammatical object NP are both daughters of V-bar, and the topic/logical subject is in [Spec, CP]. All projections are endocentric.

In contrast, Broadwell (2003:105) proposes a general flat schema for the phrase structure of Quiegolani Zapotec. The schema is shown in the following (Figure 1):

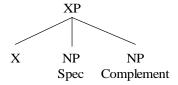


Figure 1. General schema for Quiegolani Zapotec (Broadwell 2003:105 fig.9)

where X = head, [Spec, XP] may contain interrogatives, possessives, and subjects, and [Comp, XP] is the complement to X, the head of the maximal projection XP. A critical structural difference from X-Bar theory is the total absence of the intermediate phrase, that is the X' semi-projection. Except for S(entence), all heads are endocentric.

Consequently using the above general schema, I propose the following phrase structure for San Pedro la Laguna Tz'utujil (Figure 2):

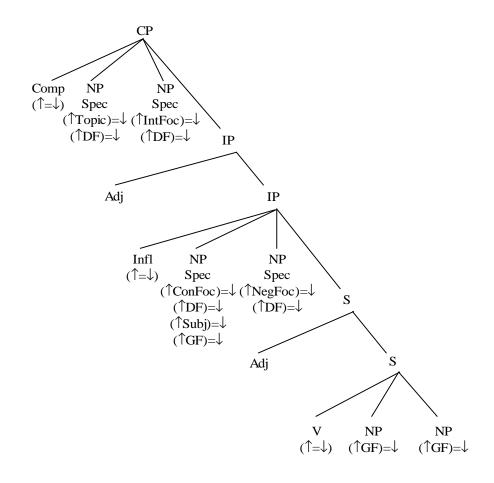


Figure 2. Phrase structure of San Pedro la Laguna Tz'utujil

7. Functional projection as grammatical relation

In predicate initial Maya languages, it has long been reported that two prepredicate NP positions exist: the sentence initial topic position and the preverbal focus position (Norman 1977, Norman and Campbell 1978). Aissen (1992, 1999b) describes these pre-predicate NPs as occurring in the specifiers of the functional (maximal) projections of CP and IP, specifically in [Spec, CP] and [Spec, IP] respectively.

Irrespective of the validity of these specific claims, clearly one claim is that these X-bar theoretic functional projections represent syntactic loci for the singular use of pragmatics and the associated primitives of topic and focus. But in examining Tz'utujil data, I have found that these functional, preverbal NP positions may encode not just the expected information structure functions, but totally unrelated grammatical relation functions as well.⁵

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⁵ Broadwell (2000) first noticed this phenomenon in Kaqchikel. With relevant preverbal NPs, Broadwell is reluctant to necessarily accord the status of sentence topic (as opposed to grammatical subject) to a non-focussed, preverbal position.

This phenomenon can be productively demonstrated with the actor focus voice. The actor focus voice, in addition to its usual task of enabling contrastive focus and associated focus semantics, appears capable of also resolving conflicting definiteness claims.

In SVO word order, I find that a preverbal indefinite subject NP with a postverbal unmarked object NP is ungrammatical. This is due to the definiteness effect:

(48) *Jun tz'i' x-uu-tz'et ta Mari'y. *SVO (*A dog saw Maria./ Maria saw a dog.)

Also due to the definiteness effect is a preverbal indefinite subject NP with a postverbal indefinite object NP is ungrammatical:

(49) *Jun mix x-u-tz'et jun tz'i'. *SVO (*A cat saw a dog.)

Consequently lower ranked indefinite subjects cannot be combined with higher ranked definite objects in the transitive. In order to use this hierarchical NP definiteness combination, the actor focus voice and the passive are the only choices (Dayley 1985:319 fn.8).

The actor focus voice suffixes morphemes $-o(w) \sim -u(w)$ to the verb and inviolably requires its subject to be preverbal:

In example (51), the definite object NP *ja masaat* 'the deer' is in sentence initial topic position and the indefinite subject NP with actor focus verb morphology is preverbal:

(51) Ja masaat jun aachi x-k'axan-in. OSV_{af} det deer det man com-hear-AF
The deer, a man heard./A man heard the deer.

As discussed above, when an indefinite subject co-occurs with a definite object, then either the actor focus construction or the passive must be used. And the actor focus voice has always been translated into English in the form of an 'it-cleft' construction.

But if we examine examples (50) and (51) closely, it is evident that the focus semantics of the it-cleft construction are totally absent. This raises the possibility that, in certain situations, the preverbal focus position has no discursive function and is probably better understood as having a grammatical function. The definiteness hierarchy of the relational NPs, which, in the above two examples, compels the use of the actor focus, is exclusively concerned with grammatical relations, not discourse functions.

We have been advised (cf. É. Kiss 1995; Aissen 1992:45-8, 1999b) that the preverbal and postverbal structural positions encode the discrete roles of the functional versus the lexical respectively. The distinction between the functional and the lexical or grammatical is critical in discourse configurational languages like Tz'utujil Maya. Yet we witness here the encroachment of the grammatical into the reportedly exclusive domain of the functional.

In summary, I propose that pre-predicate argument NP positions may be used not only for encoding discursive material but also for encoding grammatical relations. A productive way of demonstrating this is with the actor focus voice construction. The preverbal positions in the Maya languages have traditionally been understood as the sole domain of discourse or pragmatics. This proposal then adds a new grammatical function to preverbal functional positions.

8. Conclusion

In this paper, I have examined the ordering principles of the post verbal argument noun phrases (NPs) of the K'ichean language of Tz'utujil. I have shown that the ordering principles are primarily a function of the properties of the NPs with the definiteness property predominant. But other NP properties, such as animacy, clause weight, proper/common status, and pronominal use all contribute to NP ordering principles. These properties themselves can be ranked as a set of violable constraints in an OT framework. I have demonstrated that verb initial word order with NPs of equal definiteness (excluding the unmarked NP) is ambiguous but still grammatical. I have shown that syntax must also be factored in to the ordering of post verbal NPs. I have proved that VSO word order is a grammatical word order, although VOS is preferred.

I have scrutinized Tz'utujil focus particles, re-evaluated past analyses about Tz'utujil's preverbal foci, and proposed ordering principles for contrastive focus (ConFoc) and negative focus (NegFoc). I have proposed that the Tz'utujil topic phrase is in [Spec, CP], rather than [Spec, IP]. This result better accommodates adverb adjunction than does the currently proposed Kaqchikel model. In addition, I have established that the preverbal foci of ConFoc and NegFoc are in [Spec, IP], and are ordered such that ConFoc precedes NegFoc obligatorily. I have demonstrated that the functional projections of X-bar theory, which until now have been considered to encode only discourse related material or pragmatics, can, in fact, encode grammatical relations as well. The Tz'utujil data is also compared throughout to the K'ichean sister language of Kaqchikel for typological reasons. Ultimately a phrase structure for Tz'utujil Maya within the theoretical paradigm of Lexical-Functional Grammar but using a revised general schema has been proposed.

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