

# CHANGES IN BASIC WORD ORDER IN MAYAN LANGUAGES<sup>1</sup>

NORA C. ENGLAND

UNIVERSITY OF IOWA

**1. Basic word order.** As Brody (1984) amply demonstrates, the definition of basic word order is quite problematic. Different criteria are used by different linguists, languages differ greatly in the ease with which a basic word order can be established, and there has been relatively little discussion of the assumptions that underlie the idea of basic word order. Brody lists criteria that have been suggested for establishing basic word order under the general categories of simplicity, least markedness, reciprocally affecting verb, disambiguation, full nouns for nominal constituents, and frequency. She then shows that while all possible orders exist in Tojolab'al, none fulfills all of the criteria that have been suggested for basic word order. It seems necessary to specify the assumptions I hold about basic word order before discussing further the situation in Mayan.

The "major constituents" that are usually considered for the establishment of basic word order are the verb and its subject and object, used here in a standard or traditional sense. These are the arguments that are usually in a direct relationship to a transitive verb. They are also the

<sup>1</sup> The research for this paper was primarily carried out in 1988 and 1989 in Guatemala, where I had the grand good fortune to be able to teach linguistics to speakers of thirteen different Mayan languages. I owe a great debt to the students of the classes JUN IQ' and JUN AJKEM, with whom I was able to discuss many details of the grammars of their languages. I would like especially to recognize the invaluable interchange with Ruperto Montejo Esteban and José Obispo Rodríguez Guaján. They, more than any others, stimulated my thinking about the details of word order and brought me to recognize the joys of comparative linguistics. They forced me to stretch my capacity for doing and explaining Mayan linguistics. Angela Cervantes López made the first major breakthrough in our somewhat stultified thinking about word order, and Ken Hale was there to watch and cheer us on. Martín Chacach Cutzal provided the situation in which to pursue Mayan linguistics, to the benefit of all of us, and Terry Kaufman greatly encouraged my ventures into this area of linguistics and tried to keep me honest.

The data, if unattributed, are from my notes and largely due to the efforts of the members of JUN IQ' and JUN AJKEM. In writing this paper I have benefited from the comments of Bill Ladusaw, Terry Kaufman, Tom Larsen, Jon Dayley, Judith Aissen, Sandy Chung, and Jim McCloskey. Laura Martin generously searched out Mocho' data and discussed it with me. I gave a first, very preliminary version of the paper at the XI Taller Maya in Quetzaltenango in June 1989.

arguments that, at least in some languages under certain relatively rarely occurring circumstances, may need to be distinguished by some syntactic means for an utterance to be intelligible. That is, if a language has no case marking to differentiate the syntactic roles of the major constituents, a sentence with explicit nouns for subject and object which can reciprocally affect each other or be understood as either subject or object requires some mechanism for indicating the syntactic role of each. Word order may provide that mechanism.

Thus, the idea of basic word order is fundamentally syntactic. In trying to make sense out of the various criteria offered as characteristic of basic word order, it seems to me that the syntactic criteria must be considered first, always keeping in mind that the point of ordering subjects and objects with respect to the verb is at least in part to help keep them straight when other more usual mechanisms such as meaning or discourse strategies fail. Therefore, the criteria that I consider in the establishment of basic word order are (in order): (1) syntactic criteria, (2) nonsyntactic criteria that have demonstrated effects on syntax, especially order, and (3) other considerations that affect the analysis.

**Syntactic criteria.**

1. The sentence must have a transitive verb and a subject and object, both expressed as nouns.

Basic word order is generally taken to refer to the order found for the three constituents of verb, subject, object (in their usual or traditional senses). While ordering principles in sentences without one of the nominal constituents or with intransitive verbs and subjects may also be interesting or illuminating with regard to order phenomena, it is only the sentence with a transitive verb and both subject and object that contains simultaneously the constituents necessary for establishing basic word order.<sup>2</sup>

While for some languages it might be possible to include sentences in which the subject or object is expressed as an independent pronoun, I am restricting basic word order sentences in Mayan languages to those with overt nouns as subject and object because there are some Mayan languages in which the closest thing to an independent pronoun probably forms the nucleus of a stative clause with the verb then subordinated to it

<sup>2</sup> If a language were found to have different basic verb-subject orders for transitive and intransitive subjects, then basic word order would have to be based on an analysis of both transitive and intransitive clauses. This would of course also call into doubt the idea of undifferentiated "subject" as a basic category, at least in the language that showed such variation. Mayan languages do not, as far as I am aware, have different basic orders that depend on the distinction between transitive and intransitive subjects, although they differentiate them considerably in pragmatic terms (DuBois 1987).

(cf. England 1983 for Mam, for example). In fact, even in those Mayan languages where the independent pronouns seem to be more truly “independent” and therefore reasonable candidates for lexical manifestations of subjects or objects, it may be the case that there are order restrictions in their use or that they are somewhat more focusing than lexical nouns.

This first point is the single necessary criterion for basic word order. Points 2–8 are further guides to where to look for basic word order but are not absolute criteria. Some are language family specific, and in general they address the issue of where unmarked or neutral orders are most likely to be found.

2. In Mayan languages, the sentence is simple rather than complex (or at least the clause is a main clause).

Subordinate clauses may be more restricted in word order possibilities than main clauses (Steele 1978) or may involve obligatory rearrangements. This is true of Mayan languages. For instance, many can be analyzed as having some sort of fronting rule that operates in the construction of relative clauses. The presence of such a rule may be manifested in a number of different ways: by the use of a relative pronoun showing some sort of extraction, by the use of movement particles or subordinate aspect markers on the verb that show rearrangements, or by the obligatory use of the focus antipassive when the relative noun is a transitive subject, showing that it has been extracted.<sup>3</sup>

3. The verb must be indicative, affirmative, and active.

Changes in mood may involve obligatory rearrangements of order, as may negatives and interrogatives. Changes in voice usually affect valency, resulting in sentences that no longer fulfill the first criterion because the verb is no longer transitive. They may additionally involve obligatory changes in order.

4. The sentence should have an interchangeable subject and object (Durbin and Ojeda 1978).

If the subject can be understood to be the object and vice versa, then word order is called on maximally to distinguish between subject and object. Mayan languages have no overt case marking on the nouns themselves, so the sort of sentence in which the subject and object are

<sup>3</sup> Other languages do not necessarily work this way, so there may be reason to look to subordinate clauses for basic word order. Analysis of the characteristics of both main and subordinate clauses must be done for each language in order to know where to find basic word orders, so I am not suggesting that subordinate clauses are unimportant in an analysis of word order, only that in Mayan they are likely to have rearranged word orders. An exception to this may be Ch'orti'. Quizar (1979) analyzes Ch'orti' basic word order as SVO but states that VOS is less marked than SVO in subordinate clauses. This may reflect the preservation of historical basic word order in subordinate clauses.

interchangeable does in fact rely on word order for distinguishing subjects from objects.

5. Sentences should not be ambiguous in interpretation of subject and object (Durbin and Ojeda 1978)?

I am not sure about this. It seems to me that basic word orders might in fact produce some ambiguous sentences that a rearranging order might be called on to disambiguate. Specifically, in Mayan languages that permit both VOS and VSO orders, it seems to be the case that SVO functions to disambiguate certain possibilities. Since SVO is also usually associated with pragmatically marked categories such as topicalization or focus, it cannot be considered to be basic in most of the languages where this possibility arises. As Brody points out, "Disambiguation occurs in discourse situations where a less highly marked utterance has been or potentially could be misunderstood and the clearest possible statement is in order. In this kind of situation, a speaker will most likely resort to a highly marked, highly contrastive sentence type" (1984:727–28), that is, one that is not pragmatically neutral. Although this is a criterion that has been suggested by others and may have some merit, I prefer to discard it at this point.

**Other criteria that impinge on syntax.**

6. No constituent is focused, topicalized, or otherwise highlighted.

Focus, topicalization, and highlighting often result in rearrangements and other pertinent syntactic changes. Mayan languages typically require that such constituents be first in the sentence. Most of them furthermore require the use of the focus antipassive (Smith-Stark 1978) if the focused, topicalized, or highlighted constituent is the transitive subject, thus changing the valency of the verb.

7. In Mayan, the subject noun is definite.

If there are different possible orders according to definiteness of the nominal constituents, the most neutral (and hence basic) is that in which the subject is definite. According to DuBois (1987), there is a universal discourse constraint against introducing new information as the transitive subject, while there is no such constraint against introducing new information as the object. Definiteness marks, among other things, old information. Thus transitive subjects are typically not indefinite, while transitive objects may be. Some Mayan languages have different orders that apparently correspond to differences in definiteness.

8. In Mayan, the subject noun is animate.

If there are different possible orders according to an animacy hierarchy, the most neutral (and hence basic) is that in which the subject is animate. Most active transitive subjects can be expected to be agents and therefore animate. Objects are most often patients and can be either animate or

inanimate. While the semantically most neutral sentence might have an animate subject and an inanimate object (or at least an object that is lower in an animacy hierarchy than the subject), the syntactic requirement that the subject and object be capable of being interchanged suggests that basic word order sentences will have both animate subjects and animate objects.

**Other considerations.**

9. Frequency of natural occurrence is NOT a requirement for basic word order.

Sentences that fulfill the previous criteria are likely to be extremely rare in naturally occurring speech in many Mayan languages. Few sentences in a segment of discourse contain both a lexical subject and lexical object (DuBois 1987). Even fewer sentences are found to meet the additional criteria of simplicity, pragmatic neutrality, etc. Therefore, if a language has a variety of possible word orders, some of which are sensitive to the criteria mentioned, as is the case in most Mayan languages, it is likely that sentences with “basic” word order will be among the least frequently occurring (see also Brody 1984:275ff.). In a study of sixteenth-century Kaqchikel word order (Rodríguez Guaján 1989), only seven sentences were found with the presumably basic word order VOS, out of a total of fifty-four sentences that met the minimal criteria of having a transitive verb and full noun subject and object.

10. Morphological marking may provide evidence for basic word order (Quizar 1979 and Brody 1984). Where a language has several word orders, the unmarked orders are more basic than the marked ones.

11. Elicitation is necessary in addition to analysis of texts to arrive at conclusions regarding basic word order.

Brody (1984:732) makes it clear that “it is absolutely crucial to approach BWO through discourse.” It would be a grave mistake, however, to approach the analysis of basic word order ONLY through discourse. Since I am defining basic word order first on syntactic grounds (what Thompson 1978 and Brody 1984, following her, call grammatical word order), then elicitation is necessary to test the limits of the grammatical system. Syntactic or grammatical word order must be of greatest functional importance where semantic and pragmatic clues to meaning are absent or minimal, and the artificially constructed but grammatical elicitation sentences are critical for discovering word order facts in these contexts since they are unlikely to occur in naturally produced discourse. Elicited sentences are not, of course, pragmatically neutral, since speakers provide a context for them. They can, however, expand the data in significant ways. While it may be the case that some languages establish

word order on exclusively pragmatic grounds rather than a combination of pragmatic and syntactic grounds (Thompson 1978 and Mithun 1987), this is a different phenomenon from basic word order in languages that use syntactic criteria. I think that “basic word order” has no useful meaning if different criteria are used to define it in different languages. It may be more useful to talk about two types of ordering: syntactic word order and pragmatic word order, where the defining criteria are different for each type but consistent within each type. Here I am talking about syntactic word order. Although word order in Mayan languages is affected by pragmatic considerations, they do not fit definitions of pragmatic word order languages (e.g., Mithun 1987 and Larsen 1988).

**2. Word order in Mayan.** Mayan languages are usually analyzed as verb-initial, and “it is virtually certain that pM was verb-initial” (Norman and Campbell 1978:144). However, there is a fair amount of variation among the contemporary languages, with languages in which word order is easy to analyze (e.g., Mam, Ixil, Q’anjob’al) and those for which it is much more difficult (e.g., Tojolab’al [Brody 1984], Yukateko [Durbin and Ojeda 1978 and Hofling 1984], K’iche’ [Larsen 1988]). Figures 1 and 2 provide a guide to geographic distribution and temporal relationships among the languages of the Mayan family. There are at least three major types and one minor type of Mayan language with regard to word order.

**2.1. Those that have fixed VSO order.** These languages unequivocally have VSO for sentences that meet the criteria for basic word order and in fact in most sentences with transitive verbs and explicit subjects and objects. Changes in order typically result from pragmatically marked processes such as focus and in almost all cases involve overt morphological marking of the change in some part of the grammar. Languages in this group are:

Mam  
 Tektiteko  
 Awakateko (Norman and Campbell 1978)  
 Ixil: Nebaj, Chajul (Ayres 1980)  
 Q’anjob’al  
 Jakalteko  
 Chuj: San Sebastián

**2.2. Those that have VOS order.** Languages in this group have VOS in sentences that meet the criteria for basic word order, but the majority also permit SVO in most of the basic word order contexts. In general, it is difficult to decide on which is more “basic.” VOS certainly tends to be less



FIG. 1.—Map of Mayan languages (after England 1988:7).

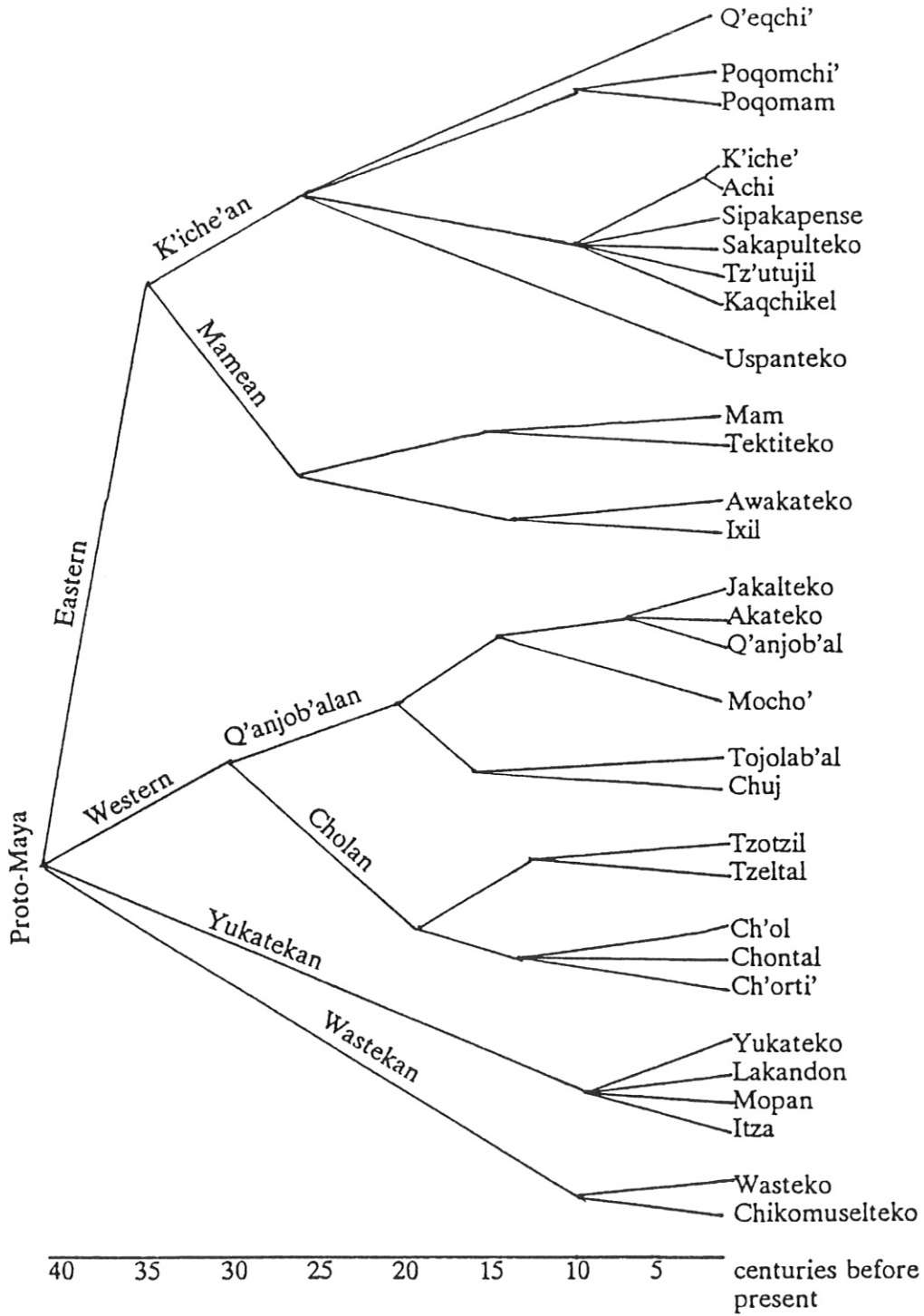


FIG. 2.—The Mayan family (England 1988:8, after Kaufman 1974).



frequent than SVO in discourse, but since this is NOT a criterion for basic word order, other factors need to be taken into account in analyzing basic word order. These languages do not permit VSO or do so only under highly pragmatically marked circumstances. Ixil of Cotzal does not permit unmarked SVO with transitive verbs. The languages are:

Yukateko (twentieth century) (Durbin and Ojeda 1978 and Hofling 1984)  
 Itza (Hofling 1984)  
 Mopan (Hofling 1984)  
 Lakandon (Hofling 1984)  
 Yukateko (sixteenth century) (Hofling 1984)  
 Tojolab'al (Brody 1984)  
 Tzotzil (Aissen 1987)  
 Tz'utujil: San Juan and Santiago (Dayley 1985)  
 Ixil: Cotzal

**2.3. Those that have both VOS and VSO.** These languages permit both VOS and VSO in basic word order contexts and usually also permit SVO in most of these contexts. It is difficult to analyze which of these orders is more basic. The difference between VOS and VSO seems usually to depend on some difference in animacy or in definiteness, but analysis is not clear for all languages. Norman and Campbell cite Wasteko and Tzeltal data for examples of languages with variable word orders that depend on lexical features such as animacy and conjecture that "Word order in proto-Mayan was variable and was controlled by a hierarchy of lexical features. Unmarked order was VSO when S and O were equal on the feature hierarchy, VOS when S was higher than O" (1978:146). Quizar (1979) states and my data suggest that several other languages have variable order that depends on features of definiteness rather than animacy. Languages in this group include:

Wasteko (Norman and Campbell 1978)  
 Tzeltal (Norman and Campbell 1978)  
 Chuj: San Mateo  
 Kaqchikel (sixteenth century) (Rodríguez Guaján 1989)  
 Kaqchikel (twentieth century) (Sis Iboy, Rodríguez Guaján, and López Ixcoy 1990)  
 K'iche' (Sam Colop 1987; 1988, Larsen 1988, Mondloch 1981, and Sis Iboy, Rodríguez Guaján, and López Ixcoy 1990)  
 Tz'utujil: San Pedro  
 Akateko (Peñalosa 1984)  
 Mocho' (Martin, personal communication)

**2.4. Those with SVO.** While many Mayan languages permit SVO, some as a relatively marked and some as a relatively unmarked order, only Ch'orti' has been analyzed as an SVO language (Quizar 1979). This is presumably innovative and recent.

On the basis of the distribution of languages with fixed VSO orders and VOS or mixed orders Norman and Campbell (1978) conclude quite justifiably that fixed VSO is innovative. It is found in two branches of the family (Eastern and Western) in languages that are geographically contiguous (all Mamean and two Q'anjob'alan proper languages plus one dialect of Chuj [greater Q'anjob'alan]), while VOS and mixed VOS/VSO languages are found in all branches in noncontiguous distribution. Therefore, fixed VSO order is a good candidate for innovative diffusion in the "Huehuetenango sphere of influence" (Kaufman 1974), while VOS or mixed VOS/VSO are better candidates for the situation in Proto-Mayan. Norman and Campbell opt for mixed VOS/VSO in Proto-Mayan, on the grounds that then the languages that today have fixed VSO or VOS simply chose one of the existent options to capitalize on and eliminated the other. I agree that Proto-Mayan probably permitted both orders, but it may be possible to characterize one of them as more "basic" than the other. It is also necessary to examine more carefully the details of the VOS and mixed order languages to understand better the factors that contribute to variation in these languages. Finally, the contexts of use of SVO in Mayan languages deserve careful analysis to address the question of Spanish influence on Mayan word order, often cited at least informally as an important factor in perceived changes toward SVO.

### 3. Mayan data.

**3.1. Fixed VSO languages.** Mamean and two Q'anjob'alan (proper) languages and one dialect of Chuj fit into this category. It is particularly noteworthy that only one dialect of Chuj has fixed VSO and that Akateko and one dialect of Ixil do not, since it reinforces the idea of fairly recent diffusion. All of the languages with fixed VSO order are found in a geographically compact zone, and one which is otherwise characterized by diffusion. For instance, Mamean and Q'anjob'alan languages are unique among Mayan languages in having a series of retroflexed stops and affricates, and it is clear that noun classifiers originated in Q'anjob'alan languages and diffused from them to Chuj and some Mamean languages (Montejo Esteban 1989). Geography can also explain why only two of the Ixil towns have VSO. Cotzal has close ties with the K'ichean towns of Cunén and Uspantán, unlike the other Ixil towns which have

closer ties to the Q'anjob'al area. In Chuj, San Mateo Ixtatán (VOS/VSO) is the most geographically isolated of the Huehuetenango towns. Geography apparently does not help explain why Akateko should be different from Q'anjob'al proper or Jakalteko, however, since the Akateko area is quite central.

These languages are characterized by the total absence of VOS<sup>4</sup> sentences and by the fact that orders other than VSO normally require further grammatical changes. In Q'anjob'al, for instance, it is possible to place the S or O in front of the verb (for emphasis), but then the classifier associated with the moved constituent appears in its original position, thus preserving word order (Quizar 1979 and Montejo Esteban 1989; examples from Montejo Esteban).

Q'anjob'al:<sup>5</sup>

(1a) Base sentence:

*Max skol ix Xhuxhep naq Luwin*  
           V          S          O

'Josefa helped Pedro'.

\*VOS

<sup>4</sup> Reflexives may be thought to be an exception to this. The reflexive relational noun phrase follows the verb and precedes the subject, giving a possible VOS sentence. For instance, in Mam (England 1983:187) we get:

*ma kub' kyb'iyoon kyib' xiinaq*  
           V          REFL/O?      S

'The men killed themselves'.

This is typical of VOS Mayan languages as well (e.g., Dayley 1985:337 for Tz'utujil). However, there are several problems in the analysis of reflexives. First, it is not at all clear that the reflexive relational noun is formally an object. Mayan languages mark objects on verbs through a set of proclitics (absolute markers or Set B). The third-person singular absolute marker is  $\emptyset$ . In reflexives, no object marker is ever used in the languages I know about (e.g., England 1983:187 and Dayley 1985:336), no matter what the person of the subject/object, which suggests that the object is always third-person singular or, more likely, that there is no object cross-referencing. Thus the verb may not be transitive. Also, Mam has enclitics on the verbs to indicate some of the person distinctions. These are cliticized to the RELATIONAL NOUN in reflexive constructions, showing that the reflexive element is incorporated into the verb (England 1983:187):

*ma b'aj ntx'ajoon wiib'-a*  
           V          REFL-enclitic

'I washed myself'.

Reflexives could therefore be analyzed as [V S] sentences.

<sup>5</sup> The alphabet used here is the alphabet of the Academia de las Lenguas Mayas de Guatemala. Symbols have their customary values with the following exceptions: *tz* =  $\phi$ ,

(1b) Fronted subject:

*Ix Xhuxhep max skol ix naq Luwin*  
 S            V        S        O

'Josefa helped Pedro'.

The same is true for Jakalteko, Chuj, Ixil of Nebaj and Chajul, and Mam of Todos Santos (Montejo Esteban 1989). An example of object fronting in Jakalteko follows.

Jakalteko:

(2a) Base sentence:

*xsmag' naq Pel naq Manel*  
 V            S            O

'Pedro hit Manuel'.

\*VOS

(2b) Fronted object:

*naq Manel xsmag' naq Pel naq*  
 O            V            S        O

'Pedro hit Manuel'.

In Mam, orders other than VSO are ungrammatical without some further change (England 1983:193-94).

Mam (Ixtahuacán):

(3a) Base sentence:

*Ma kub'kytzyu'n xiinaq cheej*  
 V            S            O

'The men grabbed the horse'.

(3b) \**xiinaq ma kub' kytzyu'n cheej*

(3c) \**cheej ma kub' kytzyu'n xiinaq*

(3d) \**xiinaq cheej ma kub' kytzyu'n*

---

*ch* = č, *tx* = ç, *ky* = kʸ, ' = ʔ, C' = glottalized C, *th* = θ, *x* = š or ʃ, *xh* = ʃ when *x* = ʃ, *j* = ɟ, VV = long vowel, ä = lax central V.

<i>p</i>	<i>t</i>	<i>tz</i>	<i>ch</i>	<i>tx</i>	<i>ky</i>	<i>k</i>	<i>q</i>	'	<i>i</i>	<i>u</i>	
<i>b'</i>	<i>t'</i>	<i>tz'</i>	<i>ch'</i>	<i>tx'</i>	<i>ky'</i>	<i>k'</i>	<i>q'</i>		<i>e</i>	<i>ä</i>	<i>o</i>
<i>v</i>	<i>th</i>	<i>s</i>	<i>x/xh</i>	<i>x</i>			<i>j</i>		<i>a</i>		
<i>m</i>		<i>n</i>									
		<i>l</i>							<i>ii</i>	<i>uu</i>	
		<i>r</i>							<i>ee</i>	<i>oo</i>	
<i>w</i>					<i>y</i>				<i>aa</i>		

(3e) \**cheej xiinaq ma kub' kytzyu'n*

(3f) \**ma kub' kytzyu'n cheej xiinaq*

(3f) would be interpreted as 'The horses grabbed the man'.

The object can precede the verb (for focus and other sorts of highlighting) but only with special marking. In Ixtahuacán and Ostuncalco, for instance, this consists of preceding it with the demonstrative *aa*, while in Tacaná it consists of encliticizing the relational noun *-e* to the fronted object (England 1989:295–96; Tacaná data from Munson 1984).

Ixtahuacán:

(3g) Fronted object:

*aa cheej ma kub' kytzyu'n xiinaq*  
           O                  V                  S

'The men grabbed *the* horse'.

Ostuncalco:

(4a) Base sentence:

*ttzuy Jwan Peegr*  
       V      S      O

'Juan grabbed Pedro'.

(4b) Fronted object:

*a Peegr ttzuy Jwan*  
       O      V      S

'Juan grabbed *Pedro*'.

Tacaná:

(5a) Base sentence:

*ku tpa'o'n Peegr xhoq'*  
       V          S      O

'Pedro broke the water jar'.

(5b) Fronted object:

*xhoq'te ku tpa'o'n Peegr*  
       O          V          S

'Pedro broke the *water jar*'.

The transitive subject cannot precede the verb. In order to highlight the transitive subject, the verb must be made antipassive. The subject thus becomes an intransitive subject while the object becomes oblique (England 1989:297–98).

Ixtahuacán:

(6) Fronted subject:

*aa xiinaq ma chi tzyuun ti'j cheej*  
 S V (antipassive) (oblique)

'The men grabbed the horse'.

Thus none of the possible non-VSO orders fulfills the criteria for basic word order sentences, and all are furthermore overtly marked for changed order, by the use of the demonstrative *aa* or the relational noun *-e* or an antipassive verb.

Ixil of Chajul and Nebaj is similar to Mam in that changes from VSO order signal focus or some other pragmatically marked process (Ayes 1980:278ff.). These are usually (but not quite always) marked in some special way, for instance, by the use of the antipassive or certain special particles or other constructions that signal changed word order. In addition, if the fronted noun is a noun that can take a noun classifier (noun classifiers are much more limited in Ixil than in Q'anjob'al or other noun classifier languages), the classifier can function to preserve word order (Montejo Esteban 1989). (These sentences are not marked in any other special way.)

Ixil:

(7a) Base sentence:

*til naq Kaxh ixoq u Kit*  
 V S O

'Gaspar saw Margarita'.

(7b) Fronted subject:

*Naq Kaxh kat til naq ixoq u Kit*  
 S V S O

'It was Gaspar who saw Margarita'.

(8a) Base sentence:

*itxey naq Lu' txoo u chej*  
 V S O

'Pedro grabbed the horse'.

(8b) Fronted object:

*txoo u chej itxey naq u Lu' txoo*  
 O V S O

'It was the horse that Pedro grabbed'.

Thus, while fixed VSO languages permit other orders, these are in all instances pragmatically marked and usually grammatically or morphologically marked as well. Basic word order in these languages is clear, unambiguous, and is additionally the most frequent or usual order encountered in sentences that fulfill the conditions of having a transitive verb and both a lexical subject and object.

**3.2. VOS languages.** There seem to be two types of languages in this group: those that freely permit SVO and those that do so only with some explicit marking. The group is distinct from the next group, VOS/VSO languages, in that VSO is not a possible order, or is a possible interpretation only in certain narrowly defined contexts (e.g., Durbin and Ojeda 1978:70).

The Yukatekan languages have been analyzed by Hofling (1984) and by Durbin and Ojeda (1978) as VOS or SVO languages. For instance, the following two sentences in Yukateko are equally acceptable (Durbin and Ojeda 1978:71).

Yukateko:

(9a) *le-wiinik-o' k-u-kiin-s-ik le-j-chakmo'ol-o'*  
           S                  V                  O

'That man kills that jaguar'.

(9b) *k-u-kiin-s-ik le-j-chakmo'ol le-wiinik-o'*  
           V                  O                  S

'That man kills that jaguar'.

Hofling finds the same situation to obtain in all four of the Yukatekan languages and in classical Yukateko. He further states that: "For both orders there are specificity constraints: the specificity of the S NP must be equal to or greater than that of the O NP. In basic VOS order the O NP has the constraint that it cannot be topicalized or marked by demonstratives, unlike SVO order. On the other hand, SVO may be more highly marked pragmatically in that the S is often highlighted by topicalization as well as by initial position . . ." (1984:47). This statement of the only minor differences between SVO and VOS is one that can be made of a number of other Mayan languages as well, including those in the VOS/VSO group.

Tojolab'al (Brody 1984) properly falls into this group also. The main contenders for basic word order are VOS and SVO, but SVO is analyzed by Brody as a topicalization order. There is marginal use of VSO, but only as an afterthought phenomenon, as in the following example (Brody 1984:721).

Tojolab'al:

- (10) *yu'aj ja pagre-i// ja trago-i*  
           V          S          O

'The priest drank it, the drink'.

According to Dayley (1985:304) Tz'utujil permits every order in some context EXCEPT VSO, and VOS is the most neutral, unmarked, basic order. Dayley was working in San Juan la Laguna and Santiago Atitlán; I have contradictory data regarding VSO sentences from San Pedro la Laguna (see 3.3 below). In Dayley's analysis, VOS sentences require that the O be explicitly indefinite (marked with the indefinite article *jun*) or unmarked for definiteness, while the S must be explicitly definite (marked with the definite article *jar*) or unmarked for definiteness. Unmarked nouns can be understood as definite. The following examples are from Dayley (1985:305).

Tz'utujil:

- (11a) S definite, O indefinite:

*xuuch'ey jun iixox jar aachi*  
           V          O          S

'The man hit a woman'.

- (11b) \*S definite, O definite:

\**xuuch'ey jar iixox jar aachi*

- (11c) \*S indefinite, O definite:

\**xuuch'ey jar iixox jun aachi*

- (11d) \*S indefinite, O indefinite:

\**xuuch'ey jun iixox jun aachi*

- (12) Both S and O unmarked for definiteness:

*xkeetij tzyaq ch'ooyaa'*  
           V          O          S

'Rats ate (the) clothes'.

SVO order is the most frequently encountered and is only subject to the restriction that the S cannot be indefinite if the O is definite. However, SVO is not as "basic" as VOS because SVO is used when the S is also the main topic of the discourse, while no such condition applies to VOS (Dayley 1985:305–6).

- (13) S definite, O unmarked:

*jar iixox xuub'an way*  
           S          V          O

'The woman made tortillas'.



(14a) S definite, O definite:

*ja ch'ooyaa' xkeetij ja tzyaq*  
           S          V          O

'The rats ate the clothes'.

(14b) \*S indefinite, O definite:

*\*jun ch'ooy xuutij ja tzyaq*

'A rat ate the clothes'.

The data for Tz'utujil are very similar to those cited for the Yukatekan languages. The only differences in analysis are that Dayley finds that Tz'utujil SVO sentences are instances of S as topic, while Hofling and Durbin and Ojeda regard that as a possible, but not necessary, condition for SVO sentences in Yukatekan languages.

Ixil of Cotzal is a fixed VOS language. Any change in word order is normally marked by grammatical or morphological changes as well. Ixil speakers from Chajul and Nebaj have a completely opposite understanding of Cotzal VOS sentences, with regard to who does the action and who receives it (leading to much amusement).

Ixil (Cotzal):

(15) *iqitz u vinaj u ixviak*  
           V      O      S

'The girl tied up the man'.

\*VSO

**3.3. VOS/VSO languages.** Those languages that apparently permit both VOS and VSO orders are of considerable interest for the light they might shed on Proto-Mayan. Norman and Campbell (1978) base their analysis of Proto-Mayan as a mixed VOS/VSO language on data from two of these, Tzeltal and Wasteko. Both seem to rely on animacy features in establishing the two orders.

Tzeltal (data from J. Smith, cited in Norman and Campbell 1978:145–46):

(16) VSO when S and O equal in animacy (both human):

*la smil jpetul te Jwan*  
           V      S      O

'Pedro killed Juan'.

(17) VOS when S higher than O in animacy (S human, O animal):

*la smil báka te jpetule*  
           V      O      S

'Pedro killed the cow'.

- (18) VSO when S and O equal in animacy (both animals):

*la st'om ta ti'el tz'i' te báka*  
 V            S        O

'The dog bit the cow'.

Wasteko (data from T. Kaufman, also cited in Norman and Campbell 1978:145):

- (19) VSO when S and O equal in animacy (both human):

*in kwatha' an uxum an inik*  
 V            S        O

'The woman hit the man'.

- (20) VSO when S and O equal in animacy (both animals):

*in k'at'uw an pik'o' an olom*  
 V            S        O

'The dog bit the pig'.

- (21) VOS when S higher than O in animacy (S human, O inanimate):

*in k'ojow oox i ajan an inik*  
 V            O        S

'The man picked three ears of corn'.

Kaufman (personal communication) says that he does not yet know what conditions the occurrence of the VSO and VOS sentences in his corpus.

Chuj of San Mateo Ixtatán also apparently permits both VOS and VSO orders on the basis of features of animacy. Chuj of San Sebastián Coatán does not, having fixed VSO order. Thus in San Mateo a sentence with two human constituents has VSO order, but one with a human subject and an animal object has VOS order.

Chuj (San Mateo Ixtatán):

- (22) VSO when S and O both human:

*xstek' winh icham winh kelem*  
 V            S        O

'The man kicked the youth'.

- (23) VOS preferred when S human and O animal:

*xsyam nok' chej winh icham*  
 V            O        S

'The man grabbed the horse'.

However, the data are murky. The person I worked with occasionally accepted VSO sentences instead of the VOS of (23) (perhaps under the influence of San Sebastián Chuj) and also gave VOS order when both subject and object are animals.

- (24) VOS when S and O both animals:

*xyil nok' chej nok'tz'i'*

V O S

'The dog saw the horse'.

Furthermore, definiteness seems to be a factor as well. A sentence with a definite subject and indefinite object can have either order; the definite constituent is interpreted as subject.

- (25a) VSO when both S and O human but S definite and O indefinite:

*xsmak' winh icham jun winh kelem*

V S O

'The man hit a youth'.

- (25b) VOS under the same conditions:

*xsmak' jun winh kelem winh icham*

V O S

'The man hit a youth'.

If both S and O are indefinite, the sentence is ambiguous and therefore only marginally acceptable:

- (25c) Ambiguous with indefinite human S and O:

*xsmak' jun winh icham jun winh kelem*

? V S O

?'A man hit a youth' (or ? 'A youth hit a man'.)

- (25d) Ambiguous with indefinite human S and O:

*xsmak' jun winh kelem jun winh icham*

? V O S

?'A man hit a youth' (or ? 'A youth hit a man'.)

In (25c) and (25d) there is a preference for the subject to be the older person, since it is regarded as far more likely that a man will hit a youth than that a youth will hit a man, but the interpretations are insecure anyway. If two truly equal nouns were found for this sort of sentence, the interpretation would be completely ambiguous. So, while a San Mateo Chuj speaker shows some preference for VSO when the S and O are equal in animacy and both are definite, and for VOS when S is higher than O and both are definite, the data are not very clear.

All of the other Mayan languages that permit both VOS and VSO make the distinction on the basis of definiteness rather than animacy, as we shall see. The general rule is that VOS is used when the S is definite and the O indefinite, while VSO is used when both S and O are definite. Other possibilities (such as S indefinite and O definite or indefinite) are often not permitted or not permitted in any V-initial order.

Let us begin by looking at K'iche'. It has been the subject of more word order research than any other Mayan language, with fairly comprehensive statements by Mondloch (1978; 1981), Norman (cited in Larsen 1988), Larsen (1988), and Sam Colop (1987; 1988). All conclude that basic word order in K'iche' is VOS. However, there is considerable disagreement on whether VSO is even possible. Larsen (1988:327ff.) discusses all of the principal analyses except Sam Colop at some length; I shall only highlight several of the most critical points.

Norman's analysis states that basic word order is the order from which other orders can be derived.<sup>6</sup> He argues for two special preverbal positions, called by Larsen a "focus" position and a "topic" position, that are filled by one of the postverbal constituents under pragmatically marked conditions (Larsen 1988:337–38). Thus SVO is derived from the more basic VOS in marked contexts. Sam Colop (1987) basically agrees with this analysis. VSO cannot be derived from VOS under Norman's analysis (Larsen 1980:340) but can be accounted for under a complex object condition, in which he claims "that such an NP would undergo 'heavy NP shift' and appear at the end of a clause" (Larsen 1988:340). Larsen, analyzing 810 clauses in three texts, finds nine examples of VSO order (of 41 clauses with both S and O explicitly indicated). All but one have complex objects, and the one that does not has an independent pronoun in S function (Larsen 1988:349). I have suggested that sentences with pronouns for one of the major constituents should not be used for basic word order (criterion 1), so all of the remaining sentences in Larsen's text sample fit Norman's condition for VSO order. However, I also think that elicited sentences can be of use here, even though it is sometimes thought that they should be discarded or only used with great suspicion. (Cf. Larsen: "It is often dangerous to attempt to investigate word order phenomena by means of eliciting sentences" [1988:345].) While a speaker might never seem to produce a sentence that can be elicited, its acceptability and interpretation can provide considerable insight into the situation that prevails when syntax is maximally necessary to distinguish subject nouns from object nouns.

I used the following elicitation frame to investigate verb-initial orders in K'iche'. A sentence with interchangeable nouns and an appropriate verb was elicited. Because of the context of translation and elicitation, in which it seems to be the case that speakers minimally topicalize the subject noun in order to provide some context for the sentence elicited in

<sup>6</sup> This, of course, assumes that all languages have a basic word order, while it is quite possible that some languages do NOT have a basic word order or at least do not have a basic syntactic word order (e.g., Mithun 1987).

isolation, such sentences were without exception rendered by K'iche' speakers first in SVO order. Then I reordered the constituents so as to produce verb-initial versions and asked for acceptability judgments and interpretations of the sentences thus produced. I also changed the definiteness values of the subjects and objects. All sentences were constructed orally; I wrote them down at the same time and the K'iche' speakers (fully literate in K'iche') were able to read them as well as listen to them. The elicitation task was done with speakers from Totonicapán and Santa Cruz del Quiché. Results were the same in the two towns. A typical set follows. K'iche' (Totonicapán):

(26a) SVO rendition, definite human S and O:

*le achi xuq'aluj le ala*  
           S      V      O

'The man hugged the youth'.

(26b) First V-initial reordering: V + *achi* + *ala*:

*xuq'aluj le achi le ala*  
           V      S      O

'The man hugged the youth'.

\*VOS interpretation

(26c) Second V-initial reordering: V + *ala* + *achi*:

*xuq'aluj le ala le achi*  
           V      S      O

'The youth hugged the man'.

\*VOS interpretation

(26d) (b) sentence with indefinite *achi*:

*xuq'aluj jun achi le ala*  
           V      O      S

'The youth hugged a man'.

\*VSO interpretation

(26e) (c) sentence with indefinite *achi*:

?*xuq'aluj le ala jun achi*  
           V      S      O

'The youth hugged a man'.

\*VOS interpretation, but VSO judged "not very good"

(26f) (b) sentence with indefinite *ala*:

?*xuq'aluj le achi jun ala*  
           V      S      O

'The man hugged a youth'.

\*VOS interpretation, but VSO judged "not very good"

(26g) (c) sentence with indefinite *ala*:

*xuq'aluj jun ala le achi*  
 V O S

'The man hugged a youth'.

\*VSO interpretation

(26h) (b) sentence with both nouns indefinite:

*xuq'aluj jun achi, jun ala*  
 V O O

'He hugged a man and a youth'.

Here the interpretation is that there must be a coordinating pause between *jun achi* and *jun ala*. To have an indefinite S and an indefinite O, word order is SVO:

(26i) *jun achi xuq'aluj jun ala*  
 S V O

'A man hugged a youth'.

The (b) and (c) sentences above have VSO order and simple rather than complex objects. Both the subject and the object are definite. If one of the constituents is indefinite but the other definite, then the definite constituent is always interpreted as subject, and only VOS is fully acceptable, as in the (d)–(g) sentences. If both subject and object are indefinite, neither VOS nor VSO is acceptable or even possible, as in the (h) sentence. Exactly the same patterns were found when two animals were used, in this instance *le tz'i* 'the dog' and *le kej* 'the horse'. These data fit the analysis of Norman and others in terms of the restrictions on VOS sentences: that they must have definite subjects and that if the object is animate, it must be indefinite or unmarked for definiteness (Larsen 1988:341–42). They do not, however, fit Norman's suggestions that only sentences with complex objects will have VSO orders. More important, apparently, is that if both constituents are definite, then the interpretation is VSO.<sup>7</sup>

The same patterns emerge when both constituents are animate but one is human and the other is animal, thus eliminating the possibility that animacy features play a role in the same way that they apparently do in Tzeltal or Wasteko (or Chuj?). For instance:

(27a) SVO:

*le achi xril le tz'i*  
 S V O

'The man saw the dog'.

<sup>7</sup> Mondloch (1978) finds sentences like (26b) and (26c) to be ambiguous. This may well be the case for some towns or some speakers. The people I worked with were more comfortable

(27b) First V-initial reordering:

*xril le achi le tz'i'*  
V S O

'The man saw the dog'.

\*VOS interpretation

(27c) Second V-initial reordering:

*xril le tz'i' le achi*  
V S O

'The dog saw the man'.

\*VOS interpretation

(27d) (b) sentence, indefinite *achi*:

*xril jun achi le tz'i'*  
V O S

'The dog saw a man'.

\*VSO interpretation

(27e) (c) sentence, indefinite *achi*:

?*xril le tz'i' jun achi*  
V S O

'The dog saw a man'.

\*VOS interpretation, but VSO judged "not very good"

(27f) (b) sentence, indefinite *tz'i'*:

?*xril le achi jun tz'i'*  
V S O

'The man saw a dog'.

\*VOS interpretation, but VSO judged "not very good"

(27g) (c) sentence, indefinite *tz'i'*:

*xril jun tz'i' le achi*  
V O S

'The man saw a dog'.

\*VSO interpretation

(27h) Both nouns indefinite:

*xril jun achi jun tz'i'*  
V O O

'He saw a man and a dog'.

\*VOS or VSO

---

with SVO, I think because they found it clearer and less difficult to interpret, but did give unambiguous interpretations of the (b) and (c) sentences.

The same ordering principles apply if the object is inanimate. Here the semantics make it clear that *achi* is the subject and *wuj* is the object, so interpretation is easier and some orders that were not possible in (26) or (27) are marginally acceptable. VSO is still preferred when both constituents are definite, and VOS is preferred when the subject is definite and the object is indefinite:

(28a) SVO:

*le achi xril le wuj*  
S V O

'The man saw the book'.

(28b) VSO if both definite:

*xril le achi le wuj*  
V S O

'The man saw the book'.

*xril le wuj le achi*—judged "not very good"

(28c) VOS if O indefinite:

*xril jun wuj le achi*  
V O S

'The man saw a book'.

*xril le achi jun wuj*—judged "not very good"

(28d) VOS marginal if S indefinite, O definite:

?*xril le wuj jun achi*  
V O S

'A man saw the book'.

(28e) Sentence unacceptable if order reversed:

\**xril jun achi le wuj*

In summary, K'iche' is analyzed by most linguists as a VOS language. SVO, a very common order, results from processes of topicalization or focus. VSO is a possible and apparently not uncommon order in texts and is analyzed by Norman as resulting from the shift of a complex object to the end of the sentence. My elicited data suggest that the object need not be complex and that VSO is also the preferred order when both the subject and object are definite, while VOS is preferred when the subject is definite and the object is indefinite or unmarked. Therefore, K'iche' is like Tzeltal, Wasteko, or San Mateo Chuj in having both VOS and VSO orders, but the difference depends on features of definiteness or object complexity rather than features of animacy.

Data from Tz'utujil of San Pedro la Laguna contradict Dayley's assertion that VSO is not a possible Tz'utujil word order, but also suggest that



the parameter definite/indefinite/unmarked for definiteness is not sufficient. The “definite” article in Tz’utujil is *jar*, the indefinite article is *jun*, the absence of either *jar* or *jun* is unmarked but can be interpreted generically or definitely, and in addition there is the possibility of combining both the definite and indefinite articles in the form *ja jun*, given an indefinite but known reading. If both nouns are marked with *jar*, the interpretation is VSO.

Tz’utujil (San Pedro la Laguna):

(29a) Both S and O marked with *jar*:

*xuchap jar ixoq jar ak’aal*  
 V        S        O

‘The woman grabbed the child’.

\*VOS interpretation

If one noun is marked with *jar* and the other with *jun*, then the noun with *jar* is interpreted as the subject, without regard for order.

(29b) One noun marked with *jar*, the other with *jun*:

*xuchap jar ixoq jun ak’aal*  
 V        S        O

‘The woman grabbed a child’.

\*VOS interpretation

(29c) Reverse order from (b):

*xuchap jun ixoq jar ak’aal*  
 V        O        S

‘The child grabbed a woman’.

\*VSO interpretation

If one noun is marked with *jar* and the other is unmarked, then the marked noun is the subject and the order must be VOS.

(29d) VOS when S marked with *jar*, O unmarked:

*xuchap ixoq jar ak’aal*  
 V        O        S

‘The child grabbed (a/the) woman’.

\*VSO interpretation

\**xuchap jar ixoq ak’aal*

If both nouns are marked with *ja jun*, then the order is interpreted as VOS.

(29e) VOS when both nouns are marked with *ja jun*:

*xuchap ja jun ixoq ja jun ak'aal*  
 V O S

'A child grabbed a woman'.

\*VSO interpretation

If one noun is marked with *jar* and the other with *ja jun*, then the noun that is marked with *jar* is interpreted as the subject without regard for order.

(29f) One noun marked with *jar*, the other with *ja jun*:

*xuchap ja jun ixoq jar ak'aal*  
 V O S

'A child grabbed a woman'.

\*VSO interpretation

(29g) Reverse order from (f):

*xuchap jar ixoq ja jun ak'aal*  
 V S O

'The woman grabbed a child'.

\*VSO interpretation

If one of the constituents is marked with *ja jun* and the other is unmarked, the one with *ja jun* is the subject and the order is VOS.

(29h) VOS when S marked with *ja jun*, O unmarked:

*xuchap ixoq ja jun ak'aal*  
 V O S

'A child grabbed (a/the) woman'.

\*VSO interpretation

\**xuchap ja jun ixoq ak'aal*

If one of the constituents is marked with *ja jun* and the other is marked with *jun*, then *ja jun* marks the subject and the order is VOS.

(29i) VOS when S marked with *ja jun*, O marked with *jun*:

*xuchap jun ixoq ja jun ak'aal*  
 V O S

'A child grabbed a woman'.

\*VSO interpretation

\**xuchap ja jun ixoq jun ak'aal*

Finally, verb-initial sentences in which neither of the constituents were marked with *jar* or *ja jun* were judged ungrammatical.

(29j) \**xuchap ixoq jun ak'aal*

(29k) \**xuchap ixoq ak'aal*

(29l) \**xuchap jun ixoq jun ak'aal*

Here we see that VSO is the order when both constituents are marked explicitly definite with *jar*, that VOS is the normal order when the subject is marked with *ja jun* and the object is marked with *jun* or is unmarked, or if the subject is marked with *jar* and the object is unmarked, but that if one constituent is marked with *jar* and the other with either *ja jun* or *jun*, then word order is variable and the constituent marked with *jar* is always interpreted as subject. Other K'ichean languages also have more than two degrees of definiteness, although the details are not exactly the same as those of Tz'utujil. This suggests that, in K'ichean languages at least, finer analysis on the parameters of definiteness is needed.

Kaqchikel is the language of the K'ichean branch that is perhaps the most insistent on SVO order today. Speakers have a fair amount of difficulty understanding verb-initial sentences and may disagree on their interpretation. For instance, in work with three Kaqchikel speakers from three different towns, one had difficulty accepting as grammatical a sentence with an initial verb followed by an indefinite noun and a definite noun.

Kaqchikel:

(30a) *xuk'aj jun achi ri xtän*  
           V      O      S      (two speakers)

'The girl carried off a man'.

?questionable                  (one speaker)

The same speaker had an ambiguous interpretation of the same sentence with two definite nouns, while the other two speakers interpreted it as VSO.

(30b) *xuk'aj ri achi ri xtän*  
           V      S      O      (two speakers)

'The man carried off the girl'.

?VSO/VOS                  (one speaker)

All speakers had ambiguous interpretations of a verb-initial sentence with two proper nouns.

(31) *xutz'umaj ma Xwan xta Mari'y*  
           V          S/O      O/S

'Don Juan kissed Maria' or 'Maria kissed don Juan'.

In spite of these difficulties, modern analyses of Kaqchikel still propose VOS as the basic order (Rodríguez Guaján 1990). Kaqchikel may be farther along in a transition to SVO, along the lines proposed by Quizar (1979) in which internal structural pressures toward SVO result in it becoming a less and less marked order. However, sixteenth-century Kaqchikel can certainly be analyzed as a basically VOS language. Rodríguez Guaján (1989) has done such an analysis, using the *Memorial de Tecpán-Atitlán* and the Kaqchikel parts of the *Crónicas Indígenas* (Recinos 1957) as primary data sources. He found a total of fifty-four sentences that met the minimal criteria of having a transitive verb and nominal subjects and objects, and found every possible word order represented in the sample:

VOS	7 examples
VSO	4 examples
SVO	16 examples
OVS	16 examples
SOV	10 examples
OSV	1 example

All word orders except VOS and VSO were fairly readily accounted for as instances of special contexts. SVO, for instance, occurred in contexts that fairly clearly indicated focus or topicalization. A number of them marked the S with the topicalizing (or focus) particle *ja*.

Kaqchikel (sixteenth century):

(32) *ja k'amol tzalaj k'ate' xkik'ut chik kiti'ojil ixoqi'*  
           S                                  V                                  O

'The leaders taught the women'.

Note here that *k'ate'* 'and then' is usually sentence-initial, showing that the subject is certainly topicalized. There were other indicators of special emphasis on the subject, such as using an independent pronoun together with the noun, as in the following example:

(33) *in Kaqolajay ninkamsaj kastilan winäq*  
           S                                  V                                  O

'I, Kaqolajay, kill the Spanish'.

OVS was used principally for object as topic or focus:

(34) *nimayujuj xkib'än ajawa' ojer*  
           O                                  V                                  S

'The principals, before, made a great revolution'.

All of the examples of SOV and the single example of OSV were used in genealogical statements:

(35) *Pakal Tojin Pakal Junajpu' xuk'atolaj*  
           S                  O                  V

'Pakal Tojin engendered Pakal Junajpu'.

(36) *Pakal Ita.Aj xawi Pakal Ajin xuk'atolaj*  
           O                  S                  V

'Pakal Ajin engendered Pakal Ita.Aj'.

The differences between sentences with VOS and VSO are not easy to explain. Starting from the hypotheses that the differences should have something to do with features of animacy or definiteness, Rodríguez Guaján examined the corpus for differences that might be attributable to these features and did not find any. All of the subject nouns are human and either proper nouns or unmarked for definiteness. Object nouns of the VOS sentences are in general inanimate but can be definite, as in:

(37) *xuya' chik nub'ara ajaw*  
           V                  O          S

'The principal gave me my staff'.

Object nouns in the VSO sentences can be either human or inanimate (a place), as in (38) and (39). Note that the object noun in (38) is also indefinite:

(38) *xuk'utuj k'a Tunatiw jun kime'al ajawa'*  
           V                  S                  O

'Alvarado asked for a daughter of the principals'.

(39) *xutolob'a'kan K'iche'winäq ri Pa Chaqi'j Ya' Pa Xiwamul*  
           V                  S                                  O

'The K'iches abandoned Pa Chaqi'j Ya' and Pa Xiwamul'.<sup>8</sup>

Therefore, neither of the hypotheses that VSO will have two definite nouns or two nouns with equal animacy features accounts for these orders. Norman's complex object condition seems to fit both of the sentences in (38) and (39), but I do not have the other two sentences in the corpus to verify this hypothesis, and Rodríguez Guaján did not consider it in his analysis. The VOS sentences he cited in his analysis do all have simple objects, as in (37) above or in the following two sentences:

<sup>8</sup> The interpretation of this as a VSO sentence depends on whether the preposition *pa* is a part of each toponym or not. I think it is, and Rodríguez Guaján agrees, but if it were shown not to be, giving a reading of 'The K'iches abandoned it in Chaqi'j Ya' and Xiwamul', then the structure would be [V S Adjunct].

(40) *xkitzoliŋ puwäq alkaldes rejitores*

V O S

'The alcaldes regidores gave back money'.

(41) *xuporoŋ awa'n ala'*

V O S

'The youth burned cornfields'.

The sixteenth-century Kaqchikel data make several important points. First, neither animacy nor definiteness features explain the occurrence of both VOS and VSO sentences, although the complex object condition may account for their distribution. Second, all word orders, including SVO, were possible at this time. Since it is sometimes supposed that SVO orders in Mayan languages resulted from Spanish influence, the Kaqchikel data provide clear counterevidence to this supposition. Third, all orders except VOS and VSO are used in contexts that are in some way marked, and therefore do not qualify for basic word order.

Peñalosa (1987:283) characterizes Akateko as a VOS language with considerable variability, which is quite unlike the order situation in the other Q'anjob'alan languages. He gives the following examples.

Akateko:

(42a) *chi sma' naq Xhunik naq Luwin*

V O S

'Pedro hits Juan'.

(42b) *chi sma' naq Luwin naq Xhunik*

V O S

'Juan hits Pedro'.

However, he adds, the interpretations of these sentences are ambiguous and speakers will make VSO interpretations or say the sentences are ambiguous. Where ambiguity is not possible, as in sentences with animate subjects and inanimate objects, either VOS or VSO is possible (his sentences have only a classifier filling the subject position):

(43a) *xil te'naa naq*

V O S

'He saw the house'.

(43b) *xil naq te'naa*

V S O

'He saw the house'.

SVO sentences are the result of topicalization, and thus are not basic but also are not ambiguous. Note the use of a noun classifier after the verb

to refer to the topicalized subject. It functions to preserve word order just as it does in the other Q'anjob'alan languages, in this instance VOS (Peñalosa 1987:284):

(44) *ix Malin xyil naq Luwin ix*  
           S      V      O      S

'Maria saw Pedro'.

Akateko data are scanty but suggest that the situation is complex. It is certainly different from other Q'anjob'alan languages and needs more analysis. Since VOS and VSO seem to be possible interpretations of some sentences, immediate questions arise regarding the possible connections of these interpretations to features of animacy or definiteness, etc.

Mocho', another (greater) Q'anjob'alan language, seems also to be a basically VOS language that permits VSO under at least some circumstances (L. Martin, personal communication). If the subject and object nouns are both definite and of equal animacy, then VOS is preferred.

Mocho':

(45a) *xpoch'o kene' we' ch'in we' winaq*  
           V          O      S

'The man killed the boy'.

(45b) *xpoch'o kene' we' winaq we' ch'in*  
           V          O      S

'The boy killed the man'.

However, with human and animal participants, Martin found that both VOS and VSO were possible, with the participant of higher animacy being interpreted as the S:

(46a) *ni xk'uxu we' winaq we' buuruh*  
           V          S      O

'The man bit the burro'.

(46b) *ni xk'uxu we' buuruh we' winaq*  
           V          O      S

'The man bit the burro'.

But, she also found such sentences to be ambiguous:

(47) *heeni mére xpoch'o we' ich we' tigre*  
                   V      S/O      O/S

'When the man killed the tiger'. (first interpretation)

'The man died'. (later interpretation)

Thus only Jakalteko and Q'anjob'al itself, among the Q'anjob'alan languages, are VSO languages. For others, both animacy and definiteness seem to play roles in word order choice.

**3.4. SVO.** Ch'orti' is the only Mayan language with basic SVO. According to Quizar (1979:89–90), VOS occurs but is only used when the verb is emphasized (contrastively) or when a yes/no question is formed. Ch'orti':

(48a) Basic sentence:

*e winik uxuri e te'*  
S      V      O

'The man cut down the tree'.

(48b) Emphasized verb:

*uxuri e te' e winik*  
V      O      S

'The man *cut down* the tree'.

(48c) Yes/no question:

*uxuri ka e te' e winik*  
V              O      S

'Did the man cut down the tree?'

**4. Analysis.** All but one of the Mayan languages surveyed have at least one verb-initial word order that meets some or all of the criteria for "basic word order." The only Mayan language, to my knowledge, that does not fit this description is Ch'orti', which seems to be a firm SVO language. There are two major groups of languages represented: those that have fixed VSO order and those that have VOS as one of the major orders and possibly the basic order. Having examined the data in more detail, I conclude that the original distinction I drew between VOS languages and VOS/VSO languages is not useful. These languages fall on a continuum from accepting VSO rather readily under some conditions, to accepting it only under very restricted circumstances, to not accepting it at all.

The VSO languages can be characterized as being rigidly VSO. Other orders are pragmatically and usually grammatically marked. VOS is not a possible order. These languages are geographically contiguous and either Q'anjob'alan or Mamean. All Mamean languages (but not the dialect of Ixil spoken in Cotzal) belong to the group. Two of the three Q'anjob'alan languages and one dialect of Chuj (Q'anjob'alan branch) are VSO languages. Akateko, Mocho', and Tojolab'al (all Q'anjob'alan) are not.



Fixed VSO order is a good candidate for innovation in the Mayan family, given its geographic distribution and other evidence that the Huehuetenango languages are subject to a good deal of interchange and diffusion. It is tempting to propose that innovation diffused from Mamean into Q'anjob'alan, given that VSO is complete in Mamean languages and found in only some Q'anjob'alan languages.

The languages that have VOS as one of the major orders are much more varied in their word order characteristics. Almost all of the VOS languages, with the exception of Ixil of Cotzal, readily permit SVO. SVO can be analyzed in most cases as a focus or topicalization order and thus is not a good candidate for basic word order, but for several of the languages (for instance, the Yucatekan group), the differences between SVO and VOS are quite minimal. VOS languages can be further divided into two major groups: those that do not permit VSO or only do so in highly restricted and marked circumstances, and those that do permit VSO more readily. The first group includes the Yucatekan languages, Tojolab'al, Tzotzil, some dialects of Tz'utujil, and Ixil of Cotzal. The second group includes Wasteko, Tzeltal, one dialect of Chuj, sixteenth- and twentieth-century Kaqchikel, K'iche', one dialect of Tz'utujil, and Akateko. Both groups include languages that are not geographically contiguous from at least three of the four major divisions of Mayan languages. Therefore, these patterns are likely not innovative but rather one or the other of them represents the older situation.

Norman and Campbell (1978) propose that Proto-Mayan had both VOS and VSO.<sup>9</sup> They further propose that VSO was the unmarked order when the two arguments were equal in features of animacy and that VOS was the unmarked order when the animacy features of the subject were higher than those of the object. Let us examine these proposals in more detail.

The proposal that Proto-Mayan was both VOS and VSO has considerable merit. It enables us to explain, as Norman and Campbell point out, how both VOS and VSO languages could develop from a common source. The major alternative proposal, that Proto-Mayan was VOS, leaves us with the significant difficulty of deriving VSO languages from a VOS language. As Norman and Campbell remind us, the distributional evidence "in itself provides us with no clue as to how or why VSO order

<sup>9</sup> Quizar (1979:206) begs the question: "Whether the original word order was VSO or VOS would be difficult to establish, even though VOS occurs in more branches of the family and is more widespread geographically." However, all the languages I have characterized as mixed VOS/VSO she regards as VOS with VSO resulting from restrictions. This basically agrees with what I ultimately propose here.

arose in some languages or both orders in others" (1978:145). If, however, we suppose that Proto-Mayan had both orders, then some languages maintained them both while other languages chose one to the exclusion of the other.

However, accepting the proposal that both orders existed in Proto-Mayan does not commit us to accept that they were both "basic." Norman and Campbell use the evidence from Tzeltal and Wasteko to propose that features of animacy played a determining role in the choice between two unmarked (or basic) word orders. The Wasteko data, at least, are not ample enough to exclude other explanations, however (T. Kaufman, personal communication). San Mateo Chuj can probably be added to this list, and there is evidence from other languages, most notably Brody's analysis of Tojolab'al, that animacy features figure in word order decisions for other languages as well. However, in still other languages features of definiteness determine the choice between VOS and VSO, and in at least one other the complex object condition may determine the choice. Therefore, at least three sorts of conditions need to be examined: animacy features, definiteness features, complex object conditions.

Norman, in his analysis of K'iche', proposes that the complex object condition results in a reordering rule: if the object is complex, move it to the end of the sentence (cited in Larsen 1988). Perhaps the animacy condition and the definiteness condition can be treated in a similar way. In the criteria for basic word order I suggest that the animacy and definiteness of the subject noun are important (criteria 7 and 8). Subject nouns are expected to be agents and therefore are likely to be animate, and subject nouns are expected to be old information and therefore are likely to be definite. Hence basic word order sentences will have animate and definite subject nouns. No such expectations regarding objects exist. They are usually patients, which can be animate or inanimate, and they can be old or new information, so either definite or indefinite. The following types all qualify as basic word order sentences:

<b>Subject Noun</b>	<b>Object Noun</b>
+animate	+animate
+definite	+definite
+animate	+animate
+definite	-definite
+animate	-animate
+definite	+definite
+animate	-animate
+definite	-definite

What Mayan languages that have both VOS and VSO seem to do is reserve VSO for those instances in which the object noun is positively marked for either animacy or definiteness, while VOS is used when the object is neither animate nor definite. Therefore, VOS is used when the S is higher than the O in one of these features, since S nouns are always animate and definite. If we consider that the complex object condition is a rule that states that VSO is used when the object is positively marked complex, but that VOS is used when the object is not marked complex, we could similarly consider that positive marking for animacy or definiteness can also result in reordering. This would assume a basic word order of VOS in all instances with VSO resulting from the application of one of three forms of a reordering rule. It suggests a language-family-specific criterion for basic word order: basic word order sentences have objects that are unmarked for complexity, animacy, or definiteness. Is there any motivation for doing this? The motivation for considering the complex object condition a reordering rule is fairly obvious: complex objects may be more difficult to process than simple objects, especially when they are situated between the verb and the subject, so that it may be hard to know when the object ends and the subject begins. There is no equally obvious pragmatic reason for a reordering rule to be necessary for animacy and definiteness. It does, however, have the advantage of treating as "the same" three processes that are found in different Mayan languages and that all have the same results. It also has the advantage of recognizing markedness of the object as the same thing, no matter what the source of the markedness.

If we accept that topic and focus positions are preverbal, as Norman suggests for K'iche' (Larsen 1988:338), and that there is a sentence-final "reordering" position that is filled by complex, animate, or definite objects, then the structure of the Proto-Mayan sentence is:

TOPIC FOCUS [V O S] REORDERED O

All possible orders can be derived from this, and since a number of Mayan languages *HAVE* all possible orders, this is important.

<b>Order</b>	<b>Derivation</b>	
VOS	[VOS]	
VSO	[V — S]	REORDERED O
SVO	TOPIC/FOCUS	[VO — ]
SOV	TOPIC FOCUS	[V — — ]
OVS	TOPIC/FOCUS	[V — S]
OSV	TOPIC FOCUS	[V — — ]

Accepting for the moment that this is a possible characterization of Proto-Mayan, let us look at what happened in the daughter languages.

The VSO languages took over the {[V — S] REORDERED O} derivation as the basic word order, generalizing it and in the process eliminating VOS as a possibility. The remaining orders still exist, although each one tends to be highly marked morphologically or grammatically as well as pragmatically. Ch'orti', which today has SVO as the basic word order, generalized the {TOPIC/FOCUS [VO]} derivation and in the process eliminated both the basic VOS and reordering rules. Quizar (1979:206–7) suggests that this change is due to internal structural pressure for re-analyzing topic/focus S V O as basic, and further suggests that the change is partially completed in those other Mayan languages that have SVO as a possible morphologically unmarked, although still pragmatically “special,” order.

Several languages make no or almost no use of the reordering rule. The remaining languages have preserved the system more or less intact. They differ on which part(s) of the reordering rule they call upon. The major advantage of this proposal is that it accounts for all of the word order patterns in a single family that shows quite a variety of different word orders.

An analysis that would propose VSO as the basic word order for Proto-Mayan with derivations that give VOS does not make sense, for various reasons. Presumably, some reordering rule would still be necessary to produce VOS, but there are no motivations for moving the S to the end of the sentence. Subject nouns always have the same characteristics (definite and animate), so it is difficult to see what would motivate a shift in position. Further, since fixed VSO languages show the clearest signs of being innovative within the family, it seems unlikely that they provide the model for Proto-Mayan and relatively unlikely that their only difference from Proto-Mayan is the elimination of VOS reordering. The current VSO languages are very clear about order: almost all changed orders are grammatically marked, there is almost no ambiguity and few restrictions on types of constituents that can fill the subject or object positions. VOS or mixed VOS/VSO languages, on the other hand, have restrictions, ambiguities, speaker or dialect disagreements about acceptability judgments, and present difficulties in analyzing basic word order. It seems unreasonable to suppose that if Proto-Mayan were VSO, the majority of the Mayan languages, from different branches and with little direct contact, chose to complicate their grammars by opting for what seem to be much less clear and stable ordering principles.<sup>10</sup>

<sup>10</sup> There is one additional argument for VSO being the basic word order, but I think the preceding arguments outweigh it. It can be noted that a sentence with a definite and animate object is one in which the object is most like the subject (also definite and animate) and therefore is a sentence which potentially relies the most on syntax to distinguish between the

There are several points that the proposed order principles for Proto-Mayan do not address adequately. Specifically, we have seen that Tz'utujil of San Pedro permits VOS or VSO when the subject is definite and the object is marked indefinite, always interpreting the definite constituent as subject. Also, Akateko (and probably others) permits VOS or VSO when the subject is animate and the object is inanimate, again always interpreting the animate constituent as subject. Definiteness and animacy can therefore override other ordering principles when their values are unequal. I am sure that other details can be found in other languages that are not yet accounted for, but what I propose here is a better starting point than previous proposals.

I have said little about word orders other than VOS and VSO and a few comments on SVO. A number of Mayan languages permit all or all but one of the possible word orders. Analysis in several of these languages shows that there is no difficulty in showing that SOV, OVS, and OSV result from TOPIC and FOCUS rules. For instance, Brody's (1984) analysis of Tojolab'al order has the following characterization: SOV requires "focus-topicalization of S, and either cleft or focus on the O" (1984:720); OVS requires "focus on the O" (1984:722); OSV requires "cleft and focus on the S and switch topicalization on the O" (1984:721). All additionally require the S to be higher than the O in animacy.

Analyses of SVO sentences show them to be at least sometimes characterized as resulting from TOPIC or FOCUS. There are, however, many examples where SVO seems almost as neutral as a verb-initial order with regard to topic or focus. This is probably due to the fact that topicalization can be a relatively grammatically unmarked process in a number of Mayan languages, so it is difficult to be sure that an isolated SVO sentence results from the application of a TOPIC rule. If, as Larsen suggests, SVO sentences in texts are analyzed, their subjects usually correspond to the general topic of discourse. This may be marked by word order only, with no other grammatical changes.

A question of some interest is whether SVO orders in Mayan languages result from Spanish or other influence. It is clear that there is, as Quizar (1979) puts it, internal structural pressure for a shift to SVO, originating

---

subject and the object. Since I made the argument before that it is in these sorts of sentences that we are most likely to encounter basic word order, it is necessary to consider this line of reasoning a little more deeply. On balance, however, the arguments for VOS as basic word order are much stronger, principally because they provide a reasonable mechanism for the development of VSO from VOS and also because the VSO languages are so clearly innovative. Also note that the complex object condition does not enter into the "object most like subject" argument and therefore still needs to be explained separately.

in the preverbal topic/focus position. However, as she also adds, the VSO languages in particular show an equally strong pressure against a shift toward SVO, since “the structure of the verb-initial languages is such that SVO constructions involve considerable embedding, making these constructions highly marked” (Quizar 1979:225). Furthermore, as Rodríguez Guaján (1989) has shown, SVO was certainly present in Kaqchikel in the sixteenth century, far too early to be attributed to Spanish influence. However, Quizar shows, in a survey of other Mesoamerican languages, that a number of them have basic SVO, including Aztec and Mixe-Zoque, the most geographically close to Mayan (1979:230). Therefore, influence from other Mesoamerican languages, combined with internal structural pressures, cannot be discounted. Spanish influence since the sixteenth century, and especially today, may also be a strong factor in word order changes and is certainly thought to be so by speakers of some Mayan languages (cf. Rodríguez Guaján 1990).

One characteristic of a number of languages with VOS/VSO or VOS orders is that they show some restrictions against any sentence with an indefinite subject in these orders (and several of them may have such a restriction in ANY order). The languages of this type are those of the K'ichean branch. Thus in the data we have seen for K'iche', for instance, verb-initial sentences with two indefinite NPs were interpreted as having a complex object (examples 26*h* and 27*h*). Dayley (1985:305) states that Tz'utujil sentences in VOS must have an indefinite object noun or one that is unmarked for definiteness, but the subject noun cannot be indefinite (examples 11–14). In San Pedro Tz'utujil the subject must be marked definite or marked with the definite/indefinite combination *ja jun* (examples in 29) in verb-initial sentences.

In 1988 I had all the students in my class on Mayan linguistics for speakers of Mayan languages vary both definiteness and animacy features of the subject and object NPs to see if any of these features had effects on word order. After working for a time on the analysis, a speaker of Poqomam informed us that none of the sentences with indefinite subject nouns was possible in any order if the object noun was definite. All of the speakers of K'ichean languages present in the class (K'iche', Kaqchikel, Tz'utujil, Q'eqchi', Poqomam) came up with a similar restriction. In the K'ichean proper languages it seemed to be a restriction on VOS, while in Poqomam and Q'eqchi' it was a restriction on any order. The K'iche' and Q'eqchi' speakers further extended the restriction to any sentence with an indefinite subject noun, whether the object noun was definite or not. None of the speakers of other languages represented in the class had any similar restrictions (speakers of Mam, Q'anjob'al, Wasteko, Ch'orti'). I think that a great deal more work needs to be done in this particular area, with many

more speakers, using both text and elicitation techniques. The data are not yet reliable. However, they raise a very interesting point.

It may be the case that, in K'ichean languages in particular, a grammatical restriction against indefinite subject NPs exists or is developing. This would presumably be a grammaticalization of the discourse constraint noted by DuBois (1987), that agents (ergators) are typically not used to convey new information. His analysis and analyses on other languages by England and Martin (1989) show that, in texts from five different Mayan languages, lexical new mentions in agent (transitive subject) role typically occupy about three percent of the total lexical new mentions. Therefore, it is very rare to encounter an indefinite transitive subject noun, for discourse reasons. K'ichean languages appear to be creating a syntactic rule that reflects the same constraint.

**5. Conclusions.** This analysis has shown that Mayan languages differ considerably in word order phenomena. Some languages are rigidly VSO, other languages are much less rigidly VOS. A group of VOS languages permits VSO as well, usually when the O is marked for animacy, definiteness, or complexity. Previous analyses of word order have concluded that Proto-Mayan word order was certainly verb-initial, was probably VOS, and may have been mixed VOS/VSO. I suggest that Proto-Mayan was VOS and that the structure of the sentence includes two preverbal positions for TOPIC and FOCUS and a postverbal position for marked objects. Thus the structure can be diagrammed as follows:

TOPIC FOCUS [V O S] REORDERED O

This structure has the advantages of treating marked objects the same and of providing derivations for all the orders that are found in Mayan languages that seem to fit fairly well with the conditions under which those orders occur. Daughter languages maintained this structure, eliminated some derivation, or promoted some derivation at the expense of another.

Those languages that promoted the {[V — S] REORDERED O} derivation at the expense of VOS have clear, stable word order. Other languages show more ambiguity, more restrictions, and are more difficult to analyze. K'ichean languages appear to be in the process of grammaticalizing a discourse-based constraint against lexical new mentions in agent role by developing a syntactic constraint against indefinite transitive subjects in verb-initial or all word orders.

What has only been touched on briefly here are the functions of the various word orders that are encountered in the different Mayan languages. Although I have defined "basic word order" for Mayan languages

as an essentially syntactic category, the factors that condition the use of different word orders are not only, or not even principally, syntactic. Arriving at an understanding of the syntax of word order paves the way for analyzing the interaction of those factors—syntactic, pragmatic, discourse-based—that ultimately affect word order choice.

## REFERENCES

- AISSEN, JUDITH. 1987. *Tzotzil Clause Structure*. Dordrecht: Reidel.
- AYRES, GLENN T. 1980. *Un bosquejo gramatical del idioma Ixil*. Ph.D. dissertation, University of California, Berkeley.
- BRODY, JILL. 1984. Some problems with the concept of basic word order. *Linguistics* 22:711–36.
- DAYLEY, JON P. 1985. *Tzutujil Grammar*. UCPL 107. Berkeley and Los Angeles: University of California Press.
- DUBOIS, JOHN W. 1987. The discourse basis of ergativity. *Language* 63:815–55.
- DURBIN, MARSHALL, AND FERNANDO OJEDA. 1978. Basic word order in Yucatec Maya. *Papers in Mayan Linguistics*, ed. Nora C. England, pp. 69–77, University of Missouri Miscellaneous Publications in Anthropology, no. 6; *Studies in Mayan Linguistics*, no. 2. Columbia: University of Missouri.
- ENGLAND, NORA. 1983. *A Grammar of Mam, a Mayan Language*. Austin: University of Texas Press.
- . 1988. *Introducción a la lingüística: Idiomas Mayas*. Guatemala: Proyecto Lingüístico Francisco Marroquín.
- . 1989. Comparing Mam (Mayan) clause structures: subordinate versus main clauses. *IJAL* 55:283–308.
- , AND LAURA MARTIN. 1989. Issues in the application of preferred argument structure analysis to non-pear stories. Ms.
- HOFLING, CHARLES A. 1984. On proto-Yucatecan word order. *Journal of Mayan Linguistics* 4, no. 2:35–64.
- KAUFMAN, TERRENCE. 1974. *Idiomas de Mesoamerica*. Guatemala: Seminario de Integración Social.
- LARSEN, THOMAS W. 1988. *Manifestations of ergativity in Quiché grammar*. Ph.D. dissertation, University of California, Berkeley.
- MITHUN, MARIANNE. 1987. Is basic word order universal? *Coherence and Grounding in Discourse*, ed. Russell S. Tomlin, *Typological Studies in Language*, vol. 11, pp. 281–328. Amsterdam: John Benjamins.
- MONDLOCH, JAMES L. 1978. Disambiguating subjects and objects in Quiché. *Journal of Mayan Linguistics* 1, no. 1:3–19.
- . 1981. *Voice in Quiché-Maya*. Ph.D. dissertation, State University of New York, Albany.
- MONTEJO ESTEBAN, RUPERTO. 1989. *Clasificadores nominales en los idiomas Mayas*. Paper presented at the XI Taller Maya, Quetzaltenango, Guatemala.
- MUNSON, LINDA. 1984. *To Qyool: a reference grammar of Western Mam*. Ph.D. dissertation draft, University of California, San Diego.



- NORMAN, WILLIAM M., AND LYLE CAMPBELL. 1978. Toward a Proto-Mayan syntax: a comparative perspective on grammar. *Papers in Mayan Linguistics*, ed. Nora C. England, pp. 136–56, University of Missouri Miscellaneous Publications in Anthropology, no. 6; *Studies in Mayan Linguistics*, no. 2. Columbia: University of Missouri.
- PEÑALOSA, FERNANDO. 1987. Major syntactic structures of Acatec. *IJAL* 53:281–310.
- QUIZAR, STEPHANIE (ROBIN). 1979. Comparative word order in Mayan. Ph.D. dissertation, University of Colorado, Boulder.
- RECINOS, ADRIAN. 1957. *Crónicas indígenas de Guatemala*. Guatemala: Imprenta Universitaria.
- RODRÍGUEZ GUAJÁN, JOSÉ OBISPO. 1989. Orden básico del Kaqchikel del siglo XVI. Paper presented at the XI Taller Maya, Quetzaltenango, Guatemala.
- \_\_\_\_\_. 1990. *Manual de redacción del idioma Kaqchikel*. Guatemala: Universidad Rafael Landívar.
- SAM COLOP, LUIS ENRIQUE. 1987. Basic word order in Quiché. Ms.
- \_\_\_\_\_. 1988. Antipassive and 2 to 3 Retreat in K'iche'. M.A. thesis, University of Iowa.
- SIS IBOY, MARÍA, JULIANA; JOSÉ OBISPO RODRÍGUEZ GUAJÁN; AND CANDELARIA DOMINGA LÓPEZ IXCOY. 1990. Orden de palabras en los idiomas del grupo K'iche'. Paper presented at the XII Taller Maya, Cobán, Guatemala.
- SMITH-STARK, THOM. 1978. The Mayan antipassive: some facts and fictions. *Papers in Mayan Linguistics*, ed. Nora C. England, pp. 169–87, University of Missouri Miscellaneous Publications in Anthropology, no. 6; *Studies in Mayan Linguistics*, no. 2. Columbia: University of Missouri.
- STEELE, SUSAN. 1978. Word order variation: a typological study. *Universals of Human Language*, ed. Joseph H. Greenberg, vol. 4, Syntax, pp. 585–624. Stanford, Calif.: Stanford University Press.
- THOMPSON, SANDRA A. 1978. Modern English from a typological point of view: some implications of the function of word order. *Linguistische Berichte* 54:19–35.