Hixkaryana Word Order
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Hixkaryana has come to the attention of typologists for its highly unusual object initial word order. I propose that this OVS word order in main clauses developed from an earlier SOV ergative stage of the language due to a decrease in the rate of new information and the grammaticalization of presentative constructions.

1. Background.

Hixkaryana is a Carib language spoken in the Amazon rain forest of northern Brazil. The Hixkaryana are still extremely isolated, their main language contacts being the closely related Waiwai and Sherew. They have almost no contact with Portuguese. Hixkaryana is the first language recognized as having a basic word order of OVS. There are now 12 languages identified as object initial; 7 are in the Carib language family, and all are in the Amazon linguistic area.

The language has only recently been studied. The first work recognizing its unusual word order was published in 1977 (Derbyshire 1977a, 1977b). The basic word order for a sentence with two full NPs is OVS. Until that time it had been maintained that no language would have an object-first word order. Greenberg claimed that of the six possible orders of constituents, only three normally occur: 'The three which do not occur at all, or at least are excessively rare, are VOS, OSV, and OVS' (1966:76). These are the cases where O precedes S. This observation led Greenberg to his first universal claim: 'In declarative sentences with nominal subject and object, the dominant order is almost always one in which the subject precedes the object'. Keenan (1976) demonstrated that Malagasy has a dominant word order of VOS, but it was still believed that initial O was not possible. Pullum (1977:269) claimed that OSV and OVS do not occur at all.

In Derbyshire 1977b, 1979b, 1985, 1986a, and Derbyshire & Pullum 1978, 1981 evidence is presented for OVS in Hixkaryana. Regarding OV full NPs, the object almost never follows the verb. In a sample text, Derbyshire (1986a:278) found the only occurrences of VO to be after first or second person subjects, although even for first and second person subjects the most common order is OV. For third person subject OV has almost no exceptions (D 1979a:40,76). Rigid OV is characteristic of many languages in the Carib family (D 1981a:215), like Carib (Hoff 1978:21). Regarding VS full NPs, the same sample text gives 99 occurrences of VS and 22 of SV. Due to its greater topic continuity (Givón 1987), VS is more evenly spread with respect to referential distance than SV (D 1986a:253), which implies it is a more neutral word order. VS is the most generally used order, occurring even in SV functions. SV is the pragmatically marked order (279) for NPs, but not for the 1st and 2nd person independent pronouns. Except for signaling continuity (277), the basic position of 3rd person independent pronouns parallels full NPs, but 1st and 2nd have a basic preverbal variable (D 1981a:218), suggesting an earlier SOV order (see 20 for 3rd), preserved by an animacy split of the speech act participants (Silverstein 1976). Regarding clauses with both full NP subjects and objects, only 4% of transitive clauses in the sample text and 1% of the total narrative clauses have two full NPs. There are three OVS and one SOV. The unmarked position of indirect objects is after subjects: OVSI.

1.1. Word order variations.

Hixkaryana is a pronominal argument language with obligatory portmanteau verbal prefixes expressing subject and object. For this reason there is considerable freedom for variation in word order. Constituents may be fronted for emphasis (D 1985:74), including subjects of transitive, intransitive and copular clauses, indirect objects, adverbs, and subordinate clauses. Only one constituent may be fronted. The fact that SOVI and IOVS may occur, but not *ISOV, confirms again the basic OVS order, since I could be fronted before S if S were already initial (D & Pullum 1978).

In addition to fronting there is left and right dislocation (D 1985:76), the function of which with regard to emphasis overlaps that of fronting. A dislocated constituent is set off from the rest of the clause by a pause and a separate intonation pattern. In left dislocation the constituent may be an entity already fronted for emphasis, a subject, direct or indirect object, or a copular complement. Left dislocation applies to single NPs, although it applies more often to complex items such as derived nouns or subordinate clauses. There is no constraint against left dislocating more than one constituent. Left dislocation of the direct object or copular complement is rare. There are two situations in which the direct object may be right-dislocated: when it occurs with a speech act participant subject (postverbal O occurs only with 1st, 1st+2nd, or 2nd person S, although even here most occurrences are preverbal), or when it is a complex construction. The postverbal object NP may be incorporated into the sentence intonation pattern. Any constituent already to the right of the verb may either remain there before the 'moved' item, or it may be fronted. Subjects, indirect objects, and adjuncts may be right dislocated. Subjects of transitive and intransitive subordinate clauses may also be right dislocated to the end of the clause, or they may be dislocated to the right of all main clause constituents. Intonation pattern distinguishes right dislocated subjects from unmarked postverbal subjects (D 1985).

Contrary to main clauses, the basic word order in subordinate clauses is SOV (D 1985:38), and subordinate clause verbs are non-finite, either derived nouns or adjectives. Also contrary to main clauses which are morphologically accusative, subordinate clauses are ergative, a split considered rare (Dixon 1979). The subjects of intransitives and copulas and the objects of transitives are possessors of the derived forms. The subjects of transitives are expressed as obliques, usually marked by the postposition *wya,* which is the same marker used to designate indirect objects in main clauses. The number of constituents is limited in subordinate clauses to two; O or Si, and S*wya* or I*wya*. The ambiguity between S*wya* and I*wya* is resolved by context (D 1985:42). Derbyshire (142) considers the possibility that occurrences of I*wya* in main clauses as indirect objects are actually S*wya* of truncated subordinate clauses:

(1) **otweto** **yimyakoni** **rohetxe** **totokomo** **wya**
hammock she-gave it my-wife people to
'My wife used to give hammocks to the people.'

. . . totokomo **wya** **ahosnir** **me**
people by taking-hold-of-it *denomlzr*
'. . . people receiving it.'

Deletion of potentially redundant items in subordinate clauses corresponds to their relative lack of redundancy compared with main clauses; paratactic constructions almost never occur in subordinate clauses (D 1985:130). Paratactic constructions are sequences of clauses or sentences in juxtaposition, and are the primary means of using redundancy to slow the rate of new information. Thus oblique objects, the only kind in subordinate clauses, are the only type of clause constituent to occur more often than agreement (D 1986a:261). One function of subordinate clauses might be simply to introduce a new, usually minor, protagonist. This would comply with Vennemann (1974) and others who suggest that topicalization plays a smaller role in subordinate clauses than in main clauses.

1.2. Redundancy.

Redundancy is a characteristic of Hixkaryana discourse which functions to slow down the rate of introduction of new information (D 1977c), and to allow reference to progress from general to specific. Although introductory sentence clusters may have several items of new information, the average of new items per sentence is well under one. One function of this redundancy is to allow the introduction of background material while keeping the foreground active. In discontinuous paratactic sequences an item will be introduced and then repeated, with only background material in between. Thus in bringing a secondary participant into accessibility, the activities of the secondary participant are described between redundant sentences about the main participant. Quotations, background interpolations, and episodes are bracketed by redundant opening and closing sentences, or sentence clusters. Repetition of the same word or clause iconically represents continuity of action as well. But 'the most general function of sentence clusters seems to be emphasis' (D 1985:170), that is, establishing a particular constituent in the short term memory of the listener.

1.3. Backwards anaphora.

There is a pattern of referential redundancy in Hixkaryana which is the opposite of the hierarchy of relative strength of identification of a participant as described by Grimes (1975). Grimes ranks identifications of the same participant in clauses such that no identification is stronger than the one before it. In Hixkaryana 'backwards anaphora', however, a series begins with the weakest identification: the person-marking verb prefix, followed by ellipsis, independent pronoun, general noun, descriptive noun, kinship term, and personal name (D 1977c:43):

(2) **. . . kekonà ymo hatà, noro, horykomotho ymo**
he-said-it *aug* *hearsay* 3rd*pron* old-chief-man *aug*
'. . . said the big bad old chief.'

The four items of reference in 2 are: 3rd person subject prefix, modifying particle *ymo* augmentative, an ellipsed NP, 3rd person independent pronoun, and the *ymo* NP.

The sentence cluster may switch this pattern of identification in lexical reiteration to indicate thematic discontinuity such as an episode boundary (D 1977:179):

(3) **nomokyatxkon** **hatà** **hawana**
they-used-to-come *hearsay* visitors
'Visitors used to come.'

(4) **hawana** **me** **nomokyatxkonà,** **àhpo**
visitors as they-used-to-come *action of arriving*
'They used to come as visitors.'

(5) **amna** **nomokno** **ketxkon** **ha**
we-*excl* have-come they-said *emphasis*
'"We've come." they said.'

The first sentence has the unmarked word order and strength of identification pattern. The second sentence is almost completely redundant, but the word order and identification pattern are reversed. This device is used to separate two episodes. The thematic boundary between the first and second sentences marks a change in location of the action and in the number of participants (D 1986a:249). This example of reversed pattern conforms to the tendency for preverbal subjects to occur theme-initially. Cross-linguistically, the prototypical subject is high in topicality, but a topic preceding the verb displays a greater thematic discontinuity than one following (Givón 1987). Thus in Hixkaryana, topic reactivation motivates subject fronting to iconically bridge the discontinuity, while the topicality induced by redundancy would encourage the postverbal subject. Subject fronting for topic discontinuity is not in competition with subject fronting to the marked (in OVS) position for emphatic focus (DuBois 1985); in fact, the two motivations may augment each other. In the above cluster, the last sentence fronts the less topical exclusive 1st+3rd person pronoun obligatorily in the quoted clause (D 1985:9, 65). This is the normal way to introduce one's arrival and adds no semantic content to the two previous sentences.

Introduction or reintroduction of entities often makes use of a two sentence sequence. In the first sentence below, the object constituent is expressed by an anaphoric device, and the full noun phrase is not used until the second sentence (D 1986a:283). Again, the less predictable topic is preverbal:

(6) **kurumu** **n-** **anotometxkoni**
vulture king 3S3O employ+*coll*+*dist. past*
'The vulture king employed him.'

(7) **kurum-yana** **komo,** **xofrye** **heno** **y-** **anotometxkoni**
vulture kin group *coll* sloth now dead 3S3O employ+*coll*+*d.p.*
'The vultures employed sloth, now dead.'

The 3S3O *n-* is used when there is no object NP. The subject NP is fronted in the first sentence, and left dislocated in the second. The two sentence sequence tends to obscure the focus of an item (270), in this case of *xofrye*, 'sloth'. By the time he is named, sloth has already become somewhat topical. Derbyshire (1986a) suggests that perhaps rather than old information, topic here relates to a frame of reference that restricts the domain of the predication (Chafe 1976). What sentence sequencing does accomplish, however, is a relatively active state for all participants at the onset of an episode. The motivation for presenting all the

participants as active in short term memory is in competition with topic and focus considerations.

2. Preverbal object due to postverbal subject.

Hixkaryana is considered to have developed into OVS from SOV (D 1977a,b,c, 1979a,b, 1981a, 1985, 1986a, 1990, D & Pullum 1981). Rigid OV is a characteristic of many Carib languages (D 1981a,1986a, Hoff 1978). OV is not typologically inconsistent with Hixkaryana, which has postpositions. The repositioning of S is reflected in Hixkaryana by the lack of an agentive passive, for example, since O is already in the topic position and cannot be fronted further (D 1985:114). Vennemann (1974) suggests that OVS might develop from SOV by way of a passive construction whose passive character has subsequently been lost. Regarding a possible passive origin for OVS, it is interesting that the closely related Carib language Makúxi is morphologically ergative, the ergative being marked by a postposition *ha* analogous to the Hixkaryana *wya*. The word order is OVS_t and S_iV (D 1981a). Passives are one source of ergativity (Anderson 1977 and others).

Overwhelming statistical evidence (D 1986a:279) of the rigidity of OV and the preponderance of VS over SV is the argument for OVS in Hixkaryana. Of the few occurrences with two NPs, OVS outnumbers SOV. The rigidity of OV compared with the pragmatically conditioned variations in VS/SV is the argument for the development of OVS by movement of the subject.

2.1. Motivations for postverbal subject.

Derbyshire (1981a) considers a modification of Vennemann (1974) who suggests that a loss of overt morphology separating S from O in an OV language will motivate a change to VO, so that V will separate the NP arguments by its position. Derbyshire assumes Vennemann did not consider the possibility of changing to OVS because at the time there were no known object initial languages. Applied to Hixkaryana, the main clauses have no case marking and the subject and object are separated by the verb. The subordinate clauses have case marking: *wya* for ergative and possessive for absolutive. They maintain SOV. Looking at other Carib languages, however, Surinam Carib has no case marking and is SOV, and Makúxi has OVS (for two NPs) and has case marking as well.

Li & Thompson (1974) argue that syntactic systems tend to change from complex to noncomplex, and that this is a motivation for word order change. In Hixkaryana dislocation works particularly on complex structures in that isolation of these structures simplifies the remaining nuclear sentence. Derbyshire points out a similarity between Hixkaryana and Fijian (D 1981a:216). In Fijian when a 3rd person marker appeared initially, the initial subject NP shifted to final position. Eventually the marker lost its 3rd person characteristics. Now in Fijian, only 1st and 2nd person pronouns occur initially. The similarity extends even further considering that in Hixkaryana 1st and 2nd person independent pronouns are commonly sentence initial.

One possible mechanism for this sort of right dislocation is the grammaticalization of afterthought (Hyman 1975). In languages of the Niger-Congo, the topicality of object constituents may have motivated a shift from OV to VO. The object is right dislocated as an afterthought. As this process becomes more neutral pragmatically, the object is grammaticalized in the final position by being incorporated into the sentence intonational pattern. Hyman suggests, however, that only new information is a likely candidate for afterthought

movement. Also, single, non-conjoined direct objects are not likely to be forgotten during a sentence and added as an afterthought. The items most likely to be forgotten in this context are adverbs, adverbial phrases, prepositional phrases, conjoined nouns, relative clauses, and oblique cases. But in both Fijian and Hixkaryana the dislocated constituents are specifically not new information. They are information that could be expressed by pronouns because they are recoverable.

3. Presentative constructions.

That new information may be right dislocated is widely attested among the world's languages (Lambrecht 1986). When referents are introduced or reintroduced, or promoted from a non-active to an active state in the discourse, there are pragmatically motivated grammatical devices which give them prominence. Lambrecht claims that the cognitively preferred unmarked topic is an unstressed pronominal. Right dislocation is a device used to establish the entity as new information so that anaphora in the following sentence may use the unstressed pronominal as an unmarked topic. A similar device is the presentative sentence. This sentence places the referent in prominence, usually sentence-finally, so that the following sentence may use the unmarked topic. An example is given in Lambrecht (126) from Givón (1976):

(8) Once there was a wizard. He was very wise, rich, and was married to a beautiful witch.

The first sentence pragmatically activates the referent, or 'presents' it. It is now ready for recall in the subsequent text. Two clauses must be used because 'an empirical fact of natural language use' (126) prohibits new information sentence-initial lexical subject NPs if information about them is conveyed as well. Therefore the sentence in 9 sounds strange because it introduces the entity and talks about it:

(9) (*)Once there was a wizard who was very wise and rich.

The presentative function was first introduced by Hetzron (1975). A presentative construction considers an entity on the basis of its communicative strength. It must be strong enough to be worth remembering in subsequent text. The item in focus is placed in final position to assist short term memory. In the following sentences taken from Bolinger (1970), Hetzron (1975:348) claims that the first is incorrect because the clause in final position contains trivial information:

(10) *That it was an easy victory has been claimed.

(11) It has been claimed that it was an easy victory.

(12) That it was an easy victory has been pretty generally claimed, but I am of the contrary opinion.

The second sentence has undergone 'presentative movement', a class of presentative constructions which place important information finally. This is because 'was claimed' is too weak. The speaker takes no responsibility for the quoted clause, and it is the quoted clause which has the most important information. In the third sentence, the claim, not the victory, has become important information, and the contrary opinion is the strongest entity.

Regarding presentative movement, Givón (1976:173) suggests that for existential *there*-clauses there is a strong tendency to isolate the topic by removing control of grammatical agreement of existential verbs in favor of neutral or locative agreement, as well as by moving the constituents. Presentative movement in this case also represents a tendency to place given information in sentence initial position, and givenness may apply to verbs (Chafe 1976:28). In Hixkaryana sentence clusters, the repeated transitive VP might also be considered given information.

3.1. Presentative devices in Hixkaryana.

Presentation of information in Hixkaryana is accomplished by redundancy, word order, and dislocation. In the narrative style, the sentence cluster itself serves to present information. At the onset of a thematic unit the sentence cluster provides a continuing focus for the subsequent comment, iconically reactivating by repetition. At the close of a thematic unit the sentence cluster repeats the focus again to establish its presence and to signal the end of the comment.

3.1.1. Sentence Clusters.

Examining the following sentence cluster from the story of Sloth and the Vultures (D 1965, 1986a), 'The sloth was upset.' is repeated twice, with a different position for the subject NP. The first sentence marks the close of the preceding episode, with the highly topical subject right-dislocated, and backwards anaphora from the preceding sentence. In theme final sentences postverbal or right-dislocated subjects predominate. The second sentence introduces a new episode and has the identical but less topical subject fronted, since almost all preverbal subjects occur as introductions to thematic units. The most general function of the sentence cluster is simply emphasis, an obvious aid to short term memory. Juxtaposition of identical constituents enhances the emphatic quality of the focus:

(13) **poo,** **Ø-** **kekoni** **hati**
dismay 3S3O say+*dist past* *hearsay*
'He expressed dismay.'

(14) **n-** **oseryehokekoni,** **xofrye**
3S be-upset+*dist past* sloth
'The sloth was upset.'

(15) **xofrye** **heno** **n-** **oseryehokekoni**
sloth now dead 3S be-upset+*dist past*
'The sloth, now dead, was upset.'

(16) **n-** **omokye** **hati** **Ø-** **txemxe**
3S come+*dist past* *hearsay* 3S3O poison+*purp. mot*
'He came purposing to poison them.'

In the first episode the action is in the village. There are three participants, and the episode is mostly dialogue. In the following episode the action is at the river, there is one participant, and the narration describes an action sequence. In the 19 sentences following the introduction, Sloth is mentioned only three times. All other references are by agreement prefixes, in the spirit of the preferred

expression of the unmarked topic as an unstressed pronominal. One of the functions of redundancy bracketing the episode is to assist short term memory by presenting the full NP.

It is common to use juxtaposition of identical items in a sentence cluster, particularly where the topic continues into a new episode, as a means of refocusing and re-presenting (D 1985:146):

(17) **tomyarke rma ti nehxakoni, watma hninkahra**
carrying *same hsy* he-was club not-putting-it-down
'He was still carrying it, not putting down the club.'

(18) **watma hninkahra nehxakoni**
club not-putting-it-down he-was
'He did not put down the club.'

Anaphoric reference in 20) (D 1985:147) provides a presentative construction for the subject within the sentence cluster, while presenting the object using backwards anaphora:

(19) **ito ti nehxakon ha kamara yohi**
there *hsy* he-was *intns* jaguar chief-of
'The jaguar chief was there.'

(20) **noro ti nonyetxkon ha**
he *hsy* he-ate-them *intns*
'He used to eat them.'

(21) **hawana heno komo yonyetxkoni**
visitor now dead *coll* he-ate-them
'He used to eat the visitors.'

The 3rd person nondeictic pronoun *noro* occurs preverbally only if the antecedent is in the preceding sentence. Otherwise it is postverbal. Its preverbal position iconically signals a two sentence presentative construction. Derbyshire claims (1986a:277) that initial position for pronouns indicates greater continuity, the reverse of the full NP pattern. As noted already, this suggests a previous SOV word order, preserved by speech act participant pronouns and perhaps others which participated less in the word order change due to an animacy split with full NPs.

In oral narrative style, a further presentative device is the echo response (D 1985:72). During a narration or monologue, listeners respond by repeating parts of the previous statement, and with particles such as *hami* 'deduction', The echo response occurs after nearly every sentence.

3.1.2. Dislocation.

Competing with postverbal subject presentative constructions is a need to focus or emphasize new or reintroduced information. Since the subject initial position is marked in Hixkaryana, contrary to English, fronting or left dislocation are commonly used for subject emphasis, in 22 (D 1985:146), or to recall and highlight accessible information, in 23 (155):

(22) **okomkurusu** **biryekomo** **heno** **yoskeko**
bushmaster(snake) child now dead it-bit-him
'It was bushmaster that bit the child, now dead.'

(23) **koseryehakoni,** **romryeni**
I-was-afraid my-boyhood
'(With reference to) my boyhood, I was afraid.'

Only one item may be fronted (D 1985:74). But this item may be fortified by left dislocation, although this device applies more often to complex constructions (155):

(24) **txokororowe,** **txokororowe** **kekon** **hati**
stomach-gurgling stomach-gurgling it-did-it *hearsay*
'(They knew) their stomachs were gurgling.'

There is no constraint on left dislocations limiting this process to a single item (85):

(25) **iwahathiyamo, aknyohnyenhiyamo,** **oske** **nketxkoni**
his-killers ones-who-had-burned-him thus they-said-it
'His killers, the ones who had burned him, said thus.'

Right dislocation is also used for emphasis. When the subject is right dislocated, it is distinguished from the unmarked subject only by being excluded from the sentence intonational pattern (D 1977c:182):

(26) **xofrye** **heno** **yanotometxkonà,** **kurumyana** **komo**
sloth now dead they-made-a-servant buzzard *coll.*
'The buzzards used to make sloth, now dead, their servant.'

(27) **tànotxhàrà** **yaheye,** **noro**
his-sister he-seduced 3rd *pronoun*
'He seduced his own sister.'

3.1.3. Reiteration.

Interpreting the presentative function as an aid to short term memory, redundancy itself could be considered presentative. A typical sentence cluster simply repeats the same information in the same order (D 1977c:171):

(28) **noseryehyakoni** **mak** **hati**
he-was-afraid *advers* *hsy*
'But he was afraid.'

(29) **noseryehyakoni** **mak** **hati,** **ihona**
he-was-afraid *advers* *hsy* towards it
'He was afraid of it.'

(30) **tehurkaniri** **hona** **nenyakoni**
his-own-falling towards he-was-seeing-it
'He was afraid (watching against) his falling.'

3.2. Presentative strategy.

These discourse-related phenomena indicate a strong tendency in Hixkaryana towards establishing a presentative construction, that is, creating or promoting a topic to an active state so that in subsequent text it may be referred to by the cognitively preferred grammatically unmarked pronominal. The presentative construction in English is usually only two sentences. One presents the topic, which occurs in final position, and the next uses anaphoric reference. In Hixkaryana the presentation may take many sentences, using repetition of sentences as a presentative strategy. Following the presentation the topic is referred to anaphorically. One common presentative sentence cluster expresses a new entity anaphorically in the first sentence and uses the full NP only in the second sentence (D 1965:24). This conforms to the backwards pattern Hixkaryana displays in reference to Grimes' relative strength hierarchy:

(31) **ta,** **átosá** **hakahpa** **ma** **kaye** **hatá**
subj ch 1S-go-away *temp* thus he-said *hsy*
"'I will go away for a time." he said.'

(32) **átosá** **hakahpa** **ma**
1S go-away *temp* thus
"'I will go away for a time."'

(33) **kahe** **yaka** **ha** **átosá,** **kekoná** **hatá**
sky to *intens* 1S go-away he-said *hsy*
"'I will go to the sky." he said.'

(34) **kahe** **hona** **átosá** **hama,** **kekoná** **hatá,** **nuno**
sky to 1S go *ver* he-said *hsy* moon
"'I will go to the sky." said the moon.'

This sentence cluster is followed by 18 sentences describing the activities of 'moon' anaphorically, the NP being used again at the end of the episode. Although Derbyshire (1986a:270) claims that the pattern of backwards anaphora tends to obscure the degree of topicality of the entity, it actually appears to enhance its presentative function. The initial anaphoric reference creates suspense, intensifying the impact on memory when the NP is finally mentioned. In the example above, 'moon' is further intensified, occurring at the onset of an episode, by being right-dislocated.

Considering that redundancy may be a presentative device alongside word order and dislocation, not to mention echo responses from listeners, Hixkaryana has developed a considerable capacity for presenting topics. Also considering that subjects are natural constituents to become topics (Keenan 1976, and others), Hixkaryana is well suited to present these topics with its postverbal subject basic word order. Derbyshire declares that Hixkaryana is a subject-prominent language (1985:155). Givón (1976:154) claims that in subject-prominent languages, the subject NP holds most of the topic functions. Dislocated subjects are so prominent that they are mentioned before they can be smoothly integrated into the sentence (Chafe 1976:52). Dislocated subjects are usually complex or derived NPs in Hixkaryana, although noncomplex NPs are not uncommon. Dislocation is always for emphasis (D 1985:74). Emphasis, a focusing device, functions to establish the topic.

4. Presentation as motivation for postverbal subject.

It may be that the tendency in Hixkaryana for presentative constructions has been a motivation for creating the postverbal subject. By continually using redundancy, word order variations, and dislocation, an unmarked postverbal subject could emerge and be grammaticalized in sentence clusters and spread to other contexts by analogy.

If Hixkaryana had an earlier word order SOV, there could be sentence clusters with identical constituents:

(35) [S O V]$_\Sigma$ [S O V]$_\Sigma$ [S O V]$_\Sigma$

For emphasis, S could be left-dislocated. This would leave S outside the sentence intonational pattern:

(36) [S] [O V]$_\Sigma$ [S] [O V]$_\Sigma$ [S] [O V]$_\Sigma$

In this configuration, it would be impossible to distinguish the left-dislocated S in one sentence from a right-dislocated S in the preceding sentence. In modern Hixkaryana, dislocated constituents may be incorporated by extending the sentence intonational pattern; left dislocations become fronted constituents, and right dislocated S fills the unmarked subject position. Historically, a left-dislocated S could be reinterpreted as a right-dislocated S:

(37) [S] [O V]$_\Sigma$ [S] [O V]$_\Sigma$ [S] [O V]$_\Sigma$ → [S] [O V S]$_\Sigma$ [O V S]$_\Sigma$ [O V]$_\Sigma$

This reinterpretation would increase the presentative quality of the sentence cluster by creating a presentative word order in each of the sentences.

At episode openings, the creation of an emphasized focus could be the motivation for dislocation. Additional emphasis could be gained if the dislocated item were to occur in a marked position. At the SOV stage of this language, this marked position for S would be postverbal. Reinterpretation as a right-dislocated S would satisfy both emphasis and presentation. Eventual incorporation into the sentence intonational pattern would decrease the emphasis function as postverbal S became less marked. To compensate, fronting and left-dislocation could use the increasingly marked initial position, for example, at episode boundaries:

(38) [OVS]$_\Sigma$ [S] [OV]$_\Sigma$

Parallel to the development of preverbal emphasized S could be the development of 'backwards anaphora'. For presentation without emphasis, a sentence could be preceded by a copy with S agreement only. This would ensure that the presentation could not begin with a potentially emphatic S no matter what reinterpretations occur in subsequent sentences. For those sentence clusters with initial anaphora, the reinterpretation would leave no initial left-dislocated S:

(39) [O V]$_\Sigma$ [S] [O V]$_\Sigma$ → [O V S]$_\Sigma$ [O V]$_\Sigma$

If 'backwards anaphora' functions to enhance presentation by postponing naming, then reinterpretation of the left-dislocated S as postverbal encodes this into unmarked word order. By reinterpreting the dislocations, presentative

constructions have been created without actually 'moving' any constituents, that is, without presentative movement (Hetzron 1975).

One question not addressed by Derbyshire is: Why is Hixkaryana like this? The association of the inception of an action and imperfectivity with agent, and the completion of an action and perfectivity with patient (DeLancey 1982, and others) may be used to explain the tendency for subjects to precede objects. Repetition iconically obscures perfectivity, perhaps weakening the association of completion with the prototypical object. The speaker's interpretation of the listener's short term memory (Chafe 1976:27) may be one pragmatic motivation for repetition. If a discourse device is too weak or too powerful for the context, it is inefficient or wasteful (Givón 1976:154). But an apparently infelicitous structure may be used to overcome difficulties such as noisy surroundings, or to include a narrative style in which repetition and echo responses ensure the involvement of the entire audience as a device for enhancing believability. In the case of Hixkaryana, the apparently infelicitous pattern of reiteration itself has become grammaticalized.

5. Information pressure in subordinate clauses.

The discourse redundant features described for Hixkaryana apply only to main clauses. The characteristic features of main clauses, namely redundancy and subject final word order, are not as predominant in subordinate clauses. The basic word order in subordinate clauses is SOV (D 1985:38), although the subject may be postverbal.

Regarding redundancy in subordinate clauses, there is almost no parallel to the redundant sentence clusters in main clauses. That subordinate clauses are seldom repeated might be expected considering the presentational function of repetition in main clauses. An entity is presented first, and talked about next. Subordinate clauses tend to 'talk about'. Even new mentions are background and psychologically less salient (DeLancey 1987). Subordinate clauses are rare in polysynthetic languages. Nouns may be incorporated into verbs which are then nominalized, and these nominalizations are juxtaposed using intonation patterns to suggest links between clauses. Relative pronouns are not as crucial because of the obligatory reference system. The Hixkaryana subordinate verbs are nominalizations, which in main clauses are obligatorily marked for pronominal reference. Because the subordinate non-finite nominalized verbs are not marked for person, independent pronouns may be used. In cases where the subject of the main clause is the same as the subject of the subordinate, or *Equi*-NP, the subordinate subject is deleted, leaving zero anaphora (D 1985:48):

(40) **Waraka wya** **honyko** **wonir** **xe** **wehxaha**
Waraka by peccary shooting-of desirous-of I-am
'I want Waraka to shoot peccary.'

but:
honyko **wonir** **xe** **wehxaha**
peccary shooting-of desirous-of I-am
'I want to shoot peccary.'

not:
***rowya** **honyko** **wonir** **xe** **wehxaha**
'by-me . . .'

The *Equi*-NP deletion suggests that there is indeed subordination in Hixkaryana, rather than juxtaposed nominalizations.

A corollary to the reduced repetition of subordinate clauses is the nature of their new information. This new information is primarily minor participants or props, which tend to be introduced as direct or oblique object NPs (D 1986a:270). This relates directly to another characteristic of Hixkaryana subordinate clauses, namely that they are morphologically ergative, while main clauses are accusative.

The ergative is marked by the postposition *wya* which is a common oblique marker in superordinates. The direct object and intransitive subject have a possessor relationship with the nominalized verb, and so are also obliques. Minor participants and props are low in persistence, that is, they do not require a good deal of comment after their introduction and so tend not to be repeated by anaphora or NP. Major participants are never introduced with obliques. As already noted, oblique objects are the only clause constituents in Hixkaryana which occur more often as NPs than as agreement affixes. Since subordinate NPs are entirely obliques, there should be a higher percentage of new information in subordinate clauses than in main clauses.

Split ergativity between main and subordinate clauses is extremely rare in the languages of the world. An explanation for this split in Hixkaryana relies on the low rate of new information in main clauses. According to DuBois (1987), new information tends to occur as the subject of an intransitive verb or as the object of a transitive verb. Intransitive clauses are particularly prevalent when introducing human referents which can later be referred to anaphorically. DuBois considers one of the functions of the intransitive verb to be management of information flow. For introductions, the speaker chooses an intransitive verb for its compliance with constraints on information flow, rather than for its semantic content. These constraints are that clauses prefer only one introductory item, and that agents prefer not to be introduced lexically. These constraints correspond to the absolutive in an ergative/absolutive system. Having no agentive capability, the absolutive function in introductions is to serve as a 'staging area' (834) to put new mentions on stage for presentation.

Considering the introduction of potential protagonists, usually human, DuBois relates the number of new protagonists to the number of clauses in the discourse. A higher number of new mentions in a given number of clauses is defined as a higher 'information pressure'. Discourse involving 1st and 2nd persons will tend to have a low information pressure, since a great deal of the discourse will relate to the common knowledge of the participants. 3rd person narration about strangers will have a high information pressure. As the information pressure rises, S_i and O roles will begin to fill with new arguments, but S_t will not. At low information pressure, S_i and O will have fewer new mentions, and will therefore be more similar to S_t. It is the situations with high information pressure that most resemble the ergative pattern. This tendency of language to distribute new information ergatively is defined as the 'preferred argument structure' (817). The preferred argument structure is best observed in discourse with high information pressure. DuBois claims that the preferred argument structure motivates languages to become ergative (839). When the information pressure is highest, the motivation is greatest. With low information pressure, however, competing motivations for accusativity are more effective (DuBois 1987). Topic continuity, for example, particularly for human referents, is high for both S_i and S_t, and low for O, Obl, and other categories. This link between

S_i and S_t exists even in highly ergative languages, and can motivate the accusative alignment $S_i : S_t$ when low information pressure weakens the ergative alignment $S_i : O$.

Low information pressure characterizes Hixkaryana main clauses. Not counting evidentials, sentence clusters are entirely main clauses. Relative to the main clauses, subordinate clauses have high information pressure. The difference in information pressure can be seen as a motivation for maintaining the system of split ergativity in Hixkaryana,

6. Indications of earlier Ergativity and SOV.

Ergative-accusative splits by 1st and 2nd person are common. Tsimshian (Dixon 1979:97) shows ergative marking in subordinate clauses and split ergativity in main clauses; 1st and 2nd person subjects are marked accusatively. Even the extensively ergative language Dyirbal (87) has accusative 1st and 2nd person marking. One explanation for the split by speech act participant subjects is the animacy agency hierarchy of Silverstein (1975). Subjects which are semantically likely to be agents do not need to be marked for agency, and so fall into accusative patterning where the nominative case is unmarked. Speaker and hearer are the most likely agents in this hierarchy, a third person is less likely, and an inanimate entity is least likely. Another explanation for this split is that conversations involving speakers and hearers contain a larger percentage of given or mutually understood background information than narrations in the 3rd person (DuBois 1987).

In Hixkaryana, 1st and 2nd person independent subject pronouns are distinguished in main clauses by commonly occurring initially, and 1st and 2nd person subjects will sometimes allow a postverbal direct object. These phenomena are reminiscent of an accusative pattern for pronouns that might be expected in the closely related ergative language Makúxi, where the ergative order is OVS_t, and the absolutive order is S_iV. If an earlier Hixkaryana had ergative main clauses, it is possible that the 1st and 2nd person S_t pronouns would lean towards accusativity by forming a pivot with S_i and adopting the absolutive word order. In the subsequent development of accusative main clauses, the $S_i : S_t$ pivot would adopt the ergative word order, leaving the optional 1st and 2nd pronoun order.

The 1st and 2nd pronoun phenomena suggest an earlier ergative main clause in Hixkaryana. An intermediate word order for the ergative main clause might have been the Makúxi $OVS_t : S_iV$. This is a plausible word order for an ergative system because it parallels an accusative system by placing the unmarked constituent preverbally. The development of presentative devices and subsequent loss of ergativity would induce the postverbal $S_i : S_t$ pivot.

If the earlier 1st and 2nd pronouns were morphologically accusative, then as subjects they would be nominative, and unmarked. Similarly, earlier ergative NP objects would be absolutive, thereby also unmarked. A Vennemann-style word order change from SOV to SVO would place the verb between the two unmarked constituents in the basic order to avoid confusing them in orders marked for topicality or focus. This could explain the unique postverbal object with 1st and 2nd subject. This pattern would have been particular to the earlier ergative-accusative interface, and so never generalized to other NPs.

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