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Constituent Order, Cohesion, and Staging in Gavião

**Horst Stute
New Tribes Mission of Brazil**

The order of constituents in Gavião clauses at first glance appears to be quite free. It is shown, however, that all variation of order, including the phenomenon of fronting, is accounted for by underlying semantic structures. These semantic structures control the surface structure of all clauses by way of rules. For making the parts of information cohere with each other, an information distribution rule is applied; and for having one set point to which the rest of information can be related, a topicalization rule is applied. The order in which these two rules apply is subject to changes, and this accounts for fronting. A suggested conclusion is that clause topics are always subjects.

A more general study of Gavião¹ discourse has been the ground for the clause analysis presented in this paper. After an outline of the inner structures of clause constituents is given, it is shown how constituents differ from particles, and then the structure of clauses is compared with that of sentences. Next, in sections 4 through 7, the order of clause constituents, as controlled by staging and cohesion, is analyzed and discussed. In section 8, the unusual characteristics of questions are considered. Finally, in section 9, some features of Gavião intonation, as it relates to discourse, are given.

1 Clause constituents

In Gavião clauses, noun phrases act as subject, verb phrases as

predicate, and adverbial modifiers, postpositional phrases, or dependent clauses as adjuncts. A verb phrase consists of either an intransitive verb or a transitive verb with its preceding object, which is a noun phrase. A postpositional phrase has the same structure as a transitive verb phrase, in that it consists of a postposition and its preceding object, a noun phrase. The following clause illustrates subject (S) and predicate (P), and also the three kinds of adjuncts (A). The third adjunct is a dependent clause containing the transitive verb phrase *evír tírí* 'cook your food'.

- (1) *e-gere en gújá e-hni ká e-vír tírí zàhr-á*
 2sg-sleep(P) you(S) well(A) 2sg-hammock in(A) 2sg-food burn
 1sg + simultaneous(A)-final
 'sleep well in your hammock while I cook your food!'

Noun phrases thus occur in subject position and also as objects of both verbs and postpositions. Noun phrase types cannot be described in detail here, but several are listed. The basic structure of a noun phrase is a noun, which may also be followed by adjectives. Pronominal prefixes are the most frequent elements that have noun-like reference. On rare occasions, however, such prefixes are substituted for by free pronouns. Verb phrases may be nominalized and thus constitute noun phrases. Recursive subordinate constructions, like 'the jaguar's head's bone', and coordinate constructions, like 'small children and adults', also constitute noun phrases. Embedded² constructions that constitute noun phrases are the relative clause and the complement clause.³

There is only one subject in a clause and usually one predicate, but adjuncts frequently occur two or three at a time with no definite limitation as to the possible number in one clause.

The occurrence of more than one predicate has special implications. One such implication is that only one of them can be a true predicate. The others (generally there are not more than two) function as adjuncts, though there is no indication of their status other than their position. In the following example, 'to take out his dreams' has the form of a verb phrase, but functions as an adjunct, stating the purpose of the main verb phrase.

- (2) *È tér alía máh a-kéjé-v piri a-vé-báta kih betihg atóh pí-á*
kípo-á. (that connector sloth declar+past 3rd +
reflexive-dream-nominalizer take=out 3rd +
 reflexive-passive-fall repeatedly Betihg-tree high
 from-final hearsay-final) 'And then the sloth let himself fall
 repeatedly from a high tree to make himself stop
 dreaming.'⁴

2 Constituents and particles

Subject, predicate, and adjunct constitute the main body or nucleus of a clause. At least one of these constituents is necessary to make a predication.⁵ In addition, there is in clauses a great variety of particles that mainly give modal information. These particles state various ways a clause is related to circumstances or to speakers and hearers. Thus, these particles are necessary for a clause to function in its context, and for a predication to constitute a speech act.

Besides differing in the kinds of information they give, constituents and particles also differ in distribution. Particles occur in fixed position and order, while there is no fixed order for the major constituents. In accordance with this fixity particles occur at the boundaries of clause constituents. For example, the particles that state the speaker's attitude toward what a clause predicates precede the subject, but these particles are partially supplemented by clause-final particles. In example 3 the initial particle *de* and the clause-final particle *kî-á* state not a common negative but something like 'the speaker holds as not true what the predication expresses'.

- (3) *de e-zá-ka gakorá-la kîh kî-á*
 particle 2sg-nondeclar-go hunt-plural frequent particle-final
 'I don't think you hunt frequently'

A few adverbial particles follow verb phrases. They are not adjuncts and may be included when verb phrases containing them are nominalized. One kind of information these particles give is frequency of the action, like *kîh* in the example above.

2.1 The auxiliary. The most important particle, which follows every subject or coalesces with it, is the auxiliary. The auxiliary carries a high semantic load. Besides showing which constituent is the subject, it gives information on tense and mode, and indicates the status of embedded clauses and the type of relation of dependent clauses. Also deictic information is stated by the auxiliary by a kind of auxiliary action: 'to come' and 'to go' as, for example, in the following clause:

- (4) *gakorá tó-máa-ka àjùr ále-á*
 hunt 1pl=excl-declar + present-go today future-final
 'I am going to hunt today'

The time information that the auxiliary gives is frequently supplemented by additional particles, which occur only at the end of the clause, like *ále* 'future' in example 4.

2.2 Connectives. Simple conjunctions are particles, and other connectives are derived from particles but include real constituent information as well. The particles in a connective are the **demonstrative**, which comes first, and the **connector**, which comes last. Between them come words that together with the demonstrative form postpositional phrases, verb phrases, and noun phrases.

The textual demonstratives *è*, *mán*, and *méne* are the most common. While *è* refers in an unspecific sense to something previously mentioned, *mán* and *méne* are more specific anaphoric particles.⁶ Examples of these connectives are given below. *è tér* and *è hó* are the conjunctions that mean ‘and then’.⁷ They are the specific time line connectives of narrative discourse.

- (5) *è hó tá-máh mató-á*
 that connector 3pl-declar+past 3sg+‘show-final
 ‘then they showed it’

In examples 6 and 7, the demonstrative *mán* is the object of a postposition and a verb respectively, and in example 8 it constitutes by itself the subject noun phrase because it precedes the auxiliary. Less clearly in example 6, more clearly in examples 7 and 8, *mán* refers to a nominal in the preceding sentence.

- (6) *mán pí bó tá-máh mató-á*
 that **after** connector 3pl-declar+past 3sg+show-final
 ‘after that they showed it (what was mentioned before)’
 (7) *mán mató bó tá-máh-á*
 that **show** connector 3pl-declar+past-final
 ‘that one they showed’
 (8) *mán bó máh mató-á*
 that connector declar+past 3sg+show-final
 ‘that one showed it’

The next three examples begin with the other anaphoric particle *méne*, which relates the whole preceding sentence to the clause constituent that is constituted by the connective. In examples 9 and 10, it is the object of the postposition and the verb respectively, and in example 11, it constitutes the noun phrase subject.

- (9) *méne ká bó tá-máh mató-á*
 that **in** connector 3pl-declar+past show-final
 ‘therefore they showed it (what was mentioned before)’

- (10) *méne mató bó tá-máh-á*
that **show** connector 3pl-declar+ past-final
'that they showed'
- (11) *méne bó máh mató-á*
that connector declar+past show-final
'that showed it'

3 Clause and sentence boundaries

The clause and the sentence are basically not distinct in Gavião. There is no string of clauses that functions as a sentence; all dependent clauses have to be considered either as constituents of clauses because of possibilities of order within a clause, or as sentences that are bound semantically to a preceding clause but occur independently because they show all the characteristics of a sentence.

What constitutes a **sentence** is a clause or a clause followed by some minor elements. The end of the clause is signaled by the enclitic *-a* 'final', and some sentence particles or minor elements follow this enclitic. The most important sentence particle is *kípo* 'hearsay'. It signifies **verification** which means that the speaker is not eyewitness and that he has not received the information from an eyewitness. Example 12 is a sentence with an independent clause, and this sentence is followed immediately by sentence 13 with a semantically dependent clause acting as a secondary sentence.

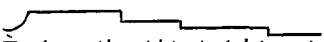
- (12) *Èna mán ká máh má aka-á kípo -á.*
that=manner relative in 3sg+declar+past one=other kill-final
hearsay-final
'In that situation he killed another one, they say.'
- (13) *I ká sáhr-á kípo -á.*
river in 3sg+simultaneous-final **hearsay-final**
'It happened while he was in the river, they say.'

Other sentence particles that follow the clause include *màga* 'I tell you!', *abój* 'my friend!', and *djere-* 'poor guy!' One example follows:

- (14) *È tér máh avi-á djere-á.*
that connector 3sg+declar+past die-final **poor=guy-final**
'Then he died, poor guy.'

Besides the particles, there is an important intonational factor that clarifies the boundaries of the sentence. Gavião has a two-level tone system, including high, low, and rising tone. The tone levels are perturbed by three kinds of downstep, causing the general key to drop at any point in the sentence. Only and always at sentence

boundaries—including secondary sentences—the primary tone levels are picked up again, giving the effect of a real intonational break. The sequence of tones of sentence 15 is indicated by the line below it. The sentence that follows it starts high again.

- (15)  *Ē tēr mǎh xàlá tè-á kípò-á.*
 that connector 3sg+declar+past 3sg+leave restrictive-final
 hearsay-final
 'Then he just left it.'

4 Information distribution and topicalization

The main phenomenon of Gavião clauses is the ordering of their constituents. It must be stressed that it is not the order of individual words but phrases that matters (Mel'chuk 1967). Within phrases, including object-verb sequences, word order is fixed.

Grimes's general concept (1975) that views language as consisting of four interrelated but distinct structures, namely sound, content, cohesion, and staging, is useful for Gavião clause analysis. While sound stands for the phonological structure, content refers to what is being said and how it is structured hierarchically. Cohesion expresses how the parts of clauses are put together for the benefit of the listener, who needs to keep track of the sequence of information.

One kind of cohesion device has to do with **information distribution** in a clause, i.e., with the distribution of information in constituents of the clause, not in particles. Halliday and Hasan's differentiation between **new** and **given** information (1976) is fundamental for information distribution in Gavião clauses. New and given have to do with predictability and are defined for Gavião as what the speaker regards as least predictable for new information, and as most predictable, for given information. This predictability of information is in reference (a) to the hearer in a statement and (b) to the speaker in a question.

Section 8 concerns questions and answers. For all other kinds of data, given, or predictable, information is what has been identified before, and what can be deduced from context, or simply what is common knowledge. New information is what the speaker regards as being new, or unpredictable, to the hearer.

Clauses generally do not contain only new, but also given information. The new is made to cohere with the given. That is to say, given information is already established in relation to time, location, and nominal identity, and new information is attached to it.

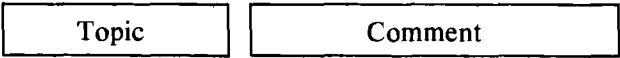
The fourth component of language is staging; it is concerned with expressing the speaker's perspective on what is being said and how he organizes what he wants to say. At clause level, staging has to do with

topicalization. Each clause has one nominal constituent as **topic**, and all other constituents function as **comment** to that topic. To make a predication, thus, is to establish a point, a topic, and then say something about it.⁸

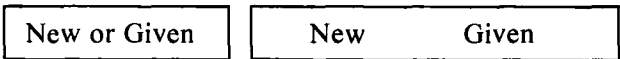
5 Unmarked clause structure

The sentences of a discourse that give the real steps of the event line show the unmarked, or basic, clause structure, with the normal ordering of constituents. There is, however, a threefold structure in which staging and the cohesive structure interact and lead to its resultant content structure. The three may be displayed as follows:

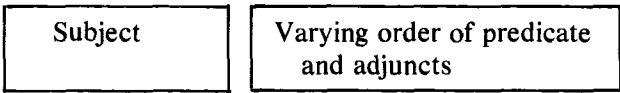
Staging:



Cohesion:



Content:



Staging structure and cohesive structure interact according to rules. These rules must be applied in structuring any clause. The topicalization rule that aims for an initial topic as starting point applies last in an unmarked clause structure and thereby determines the final surface structure: the topic occurs first, before its comment, and is always the subject in terms of content structure.

The information distribution rule that places new information in initial position applies before the topicalization rule and therefore cannot affect the placement of the topic. It controls, however, constituent order within the comment. That is to say, the constituents that contain new information come first after the topic, followed by the given information. The sequence of sentences that follows illustrates the unmarked placement of the topic and of new and given information. In example 17 the goal of the action, which is the dog mentioned in example 16, is last and is therefore given. In example 19 the location is stated first after the topic because it is new information, while the verb

comes last because it is mentioned in example 18.⁹

- (16) *Zàno máh a-pásala ávulu kaj-á.*
 my=brother declar+past [topic] 3rd-be=angry=with [new] dog
 goal [new]-final
 'My brother was **angry** with the dog.'
- (17) *È tér máh tágá kaj-á.*
 that connector 3sg+declar+past [topic] hit [new] 3sg+goal
 [given]-final
 'Then he **hit** it.'
- (18) *È pí bó máh pekáta-e kala-á.*
 that after connector 3sg+declar+past [topic] 3sg+close=in-
 nominalizer want [new]-final
 'Later he wanted to **close it in**.'
- (19) *È tér máh xi-savàhv ká pekáta-á.*
 that connector 3sg+declar+past [topic] 3sg-cage in [new]
 3sg+close=in[given]-final
 'Then he closed it in **in its cage**.'

Sometimes the comment in a clause contains more than one constituent conveying new information, in which case one would expect free order of such constituents. But as example 20 illustrates, the concept of given and new is relative. There are degrees of newness, or of greater or less predictability, and the ordering of new-information constituents in a clause may be controlled by this variation. Example 20 is taken from a text and in relation to preceding parts of that text the three phrases 'to the hill', 'with it', and 'went' are new information. But there are ideophones initially that influence the placement of the phrases. The ideophones state the barking and running activity of the dogs, and relative to that the verb 'went' is given and is placed finally. The phrase 'with it' is also in some degree predictable in relation to the ideophones and is placed second. 'To the hill' is unpredictable and therefore first in the comment.

- (20) *Xun xun xun, è tér tá-mán do koj xi-tá a-ka-á.*
 ideophones=run=bark, that connector 3pl-declar+past [topic]
 hill to [new] 3sg-with [slightly new] go [given]-final
 'Bow wow, they (dogs) went with it (jaguar) to the hill.'

6 Marked clause structure: fronting

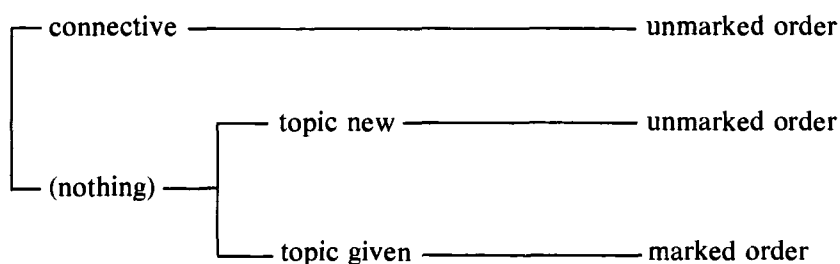
Gavião clauses show one consistent departure from unmarked clause structure: the clause constituent that contains the least predictable information is frequently fronted before the subject topic. But of prominent and new information only one clause constituent, either a predicate or an adjunct, can occur before the subject. Of the

examples that come next, 21 has an adjunct fronted and 22 a predicate. In example 23 a fronted predicate is the only constituent besides the subject.

- (21) *ve kakúru ná pa-mága pèe máki magéré-á*
 thing good postposition [new] lpl=incl-declar+present [topic]
 thing make in=morning-final
 'it is good to work in the morning'
- (22) *olixi sábéh máki tá-máh ivav ná-á*
 cashew=tree bark make [new] 3pl-declar+past [topic] canoe
 postposition-final
 'they made cashew tree bark into a canoe'
- (23) *pèe máki máh-á*
 thing make [new] 3sg+declar+past [topic]-final
 'he worked'

6.1 Principles of fronting. The fronting of clause constituents or lack of fronting depends on the order in which the topicalization and information distribution rules are applied. In the marked structure, then, the information placement rule applies last and, therefore, to the result of the staging rule, causing fronting of one constituent.

Asking further why the topicalization and information placement rules apply in varying orders leads to still more basic principles. The order in which rules apply is conditioned by choices that a Gavião speaker has to make in structuring any clause. These choices are displayed in the following diagram:



The first choice refers to the use of connectives. Connectives are topic introducers, always preceding the topic, except when they constitute the topic, as in examples 8 and 11 in section 2.2. If a connective is chosen, then there is no further choice, and the unmarked clause structure is used. If the first choice is not to use a connective, however, then a second choice must be made concerning the subject topic. Where the nominal phrase of the subject is new information, there is no change, and the unmarked structure occurs. If

on the other hand the topic is given information, then the use of the marked clause structure with fronting of some new information is obligatory. In other words, when the topic is given information, then the information distribution rule overrules the topicalization rule and is applied last.

The initial sentences of seventeen short texts that do not begin with a connective show various kinds of subjects.¹⁰ The subject of eight of these sentences is a prefix denoting a known referent like 'I', 'we', 'they', etc. In these cases some other element is fronted, as in example 24. The subjects of three other sentences are 'people', 'the old-timer', and 'the monkey killer'. All three are common knowledge and are considered to be given information; thus, as exemplified in 25, some element is placed before them. Five others have specific names of persons or tribes as subject topics. All these occur initially because they give new information, as in example 26. The subject of example 27 is similar to that of example 25, but it is new information because 'only' occurs with it. In Halliday's (1976) terms, 'armadillo killer only' is repudiative: it implies contrast and is, therefore, new and no fronting is carried out.

- (24) *Be tára tá-ma-ká-á kípó-á.*
 path on **3pl-declar+past-go-final** hearsay-final
 'They went to the path.'
- (25) *Ve-mi aratígi-má-éhj máh zav maâ-á kípó-á.*
 skill-with **old=time-relative-pl** declar+past house build-final
 'The old-timers knew how to make houses.'
- (26) *Pagûhj-éhj máh Seregúr aka-á kípó-á.*
Pagûhj=person-pl declar+past Seregúr kill-final hearsay-final
 'The Pagûhj (tribe) killed Seregúr.'
- (27) *Mazój aká-r térté máa mazój aka ve-mi èna-á kípó-á.*
armadillo kill-nominalizer only declar+present armadillo kill
 skill-with particle-final hearsay-final
 'Only the armadillo killer knows how to kill the armadillo.'

This same kind of difference between fronting and initial occurrence of subject is seen in all situations where no connectives occur. Occurrence of connectives, however, is rarely a free choice for the speaker, but depends rather on the context into which the clause is to be placed. When an event is expressed in narrative or procedural discourse, a connective always has to be used; therefore, Gavião makes frequent use of connectives. On the other hand, not to use a connective is very common in the following situations: (1) in the type of text where the speaker reports what he sees few connectives are used; (2) sentences that give setting information, or commentaries on

events, rarely occur with connectives; (3) all polar questions, imperatives, and most embedded and dependent clauses do not occur with connectives; and (4) simple individual statements like 'I am hungry' or 'John went fishing' are not given with connectives.

Gavião has the widely observed restriction that pronominal subject prefixes do not occur sentence initial because they are always given information. This is because topics, which are given information, do not occur initially, but are always preceded by some other element.

There is, however, one exception to the whole concept of fronting, including this restriction on the occurrence of prefixes in initial position. If no constituent of a clause contains any new information, then any subject, including a prefix, can occur sentence initial. The reason for this is logical, in that where there is no new information to be fronted, no fronting occurs. In fact, this exception supports the above analysis by showing that the restriction in subject prefix occurrence is not a mechanical restriction but a functional one. In example 28 the subject prefix is first. It is a paragraph-final clause whose constituents contain no new information. The constituents of this clause are stated only to relate them to the clause-final particle *káre* 'before a set point in time', which is the only new information in the clause. *Káre*, however, cannot be fronted because it is a particle with fixed position.

(28) *Ó-ma-ká zavpâjâ xalá tè káre-á.*

1sg-declar+past-go visit 3sg+leave restrictive yet-final

'I went visiting people just leaving it (jaguar) there yet.'

6.2 Fronting and connectives. In comparing the structures of connectives and fronted constituents one realizes that they are almost the same, as illustrations in preceding sections show.¹¹ The constituent information in connectives is fronted information too.

Connectives and fronted elements are not the same because, first, in connectives it is not necessarily new information that is fronted and, second, connectives do have some special properties, for example, their connector *bó*.

6.3 Topic and subject. Even though in Gavião clauses any constituent that occurs before the subject has a special status, that is, it is fronted, nevertheless the speaker keeps the subject as the constituent that sets the stage in all clauses, even where one constituent occurs before it. This allows us to conclude that the clause topic and the clause subject are identical; that is, the subject is always topic and there are no topics that are not subjects.¹² The only exception to this is subject deletion,

which is found occasionally in the marked clause structure, but never in the unmarked clause structure, and never if a connective is present. Deletion of the subject, however, does not mean that there is no topic in the clause, because, having been established earlier, it can be identified implicitly. Examples of this are 29 and 30; the topic in example 30 is implicit after having been established in example 29.

- (29) *È tér ãlîmé aká-r máa-ka ãlîmé-éhj kábi-á kîpo-á.*
 that connector monkey kill-nominalizer 3sg+declar+present-go
 monkey-pl for-final hearsay-final
 'Then the monkey killer goes after the monkeys.'
 (30) *Tajaôhv aka baala-á kîpo-á.*
 selected=one kill [deleted subject] first-final hearsay-final
 'First (he) kills a selected (monkey).'

6.4 Special kinds of fronting. Ideophones and quotations constitute a special kind of fronting because they may occur even before conjunctions, contrary to the general rule of fronting. Example 31 illustrates a quotation, while example 20 illustrates ideophones.

- (31) *e-néva en-á, è tér xî-djaj máh kaj-á*
 2sg=eat 2sg+imperative-final, that connector 3sg-father
 declar+past 3sg+goal-final
 '“Eat!” his father said to him.'

Gavião appears to have an extra structure for clauses that express adjectival and nominal states; in fact, however, it is not a distinct structure but a special kind of fronting. Clause 32 consists of only a subject, which is an unmarked structure of a noun phrase plus an auxiliary that could also be extended by a predicate and adjuncts. In clause 33 the adjective of the nominal phrase has been fronted as new information, while 'child' is in the position of given information.

- (32) *buv xîxîr mága-á*
 child small declar+present-final
 'the small child' or 'the small child exists' or 'the child is small'
 (33) *xîxîr, buv máh-á*
 small [new] child [given] declar-final
 'the child is small' or 'the child is a small one'

Adjectives may function as noun phrases, as illustrated in example 34. The fronted adjective in example 33 may therefore be considered a noun phrase too, having the English equivalent 'the child is a small

one'. Other more complete noun phrase fronting is shown in examples 35 to 38.

- (34) *xíxîr máh a-ala-á*
small declar+past 3rd-fall-final
'the small one fell'
- (35) *buv xíxîr, e-máh-á*
child small, 2sg-declar-final
'you are a **small child**
- (36) *gakorá-hr, zàno máh-á*
hunt-nominalizer, my=brother declar-final
'my brother is **hunter**'
- (37) *zàno, gakorá-hr máh-á*
my=brother, hunt-nominalizer declar-final
'my **brother** is a hunter'
- (38) *en, Xíko máh-á*
you, Xíko declar-final
'**you** are Xíko'

Such noun phrase fronting is common in Gavião. It is always accompanied by complementary signals. Between the fronted element and the rest of the clause there is an intonational break indicated by pause and by lack of morphophonemic change of consonants. Also the auxiliary of these structures occurs only in past tense form with a meaning that is probably without tense. None of these clauses may be extended further; the auxiliary is always the last item.

7 Repetition

In Gavião discourse there is repetition of sentences. A sentence may, for example, be repeated in order to add a particle or other constituent to it. Such repetitions do not seem to be corrections, but rather a means by which additions and slight changes are made. An example is given next: 40 differs from 39 only in that *i kábe ká* 'on the river Kábe' is deleted and *gólóá* 'a lot' and two particles are added to it.

- (39) *Mán tára pí bó máh bolív-éhj abi aka i kábe ká-á kípó-á.*
that=one on from connector 3sg+declar+past fish-pl kill+pl go
river Kábe in-final hearsay-final
'They went to kill fish on the Kábe River from the top of those (canoes).'

- (40) *Mán tára pí bó máh bolív-éhj abi gólóá aka kih èna-á kípo-á.*
 that=one on from connector 3sg+declar+past fish-pl kill+pl alot
 go frequent particle-final hearsay-final
 'They went to kill a lot of fish from the top of those (canoes).'

Such repetitions are problematic in that they depart from the general rules of information distribution. The only new constituent information in example 40 is *gólóá*, but instead of being placed in first position after the subject, it follows some given information. The solution is this: in such repetitions there is no new ordering of information, but the new item is placed at the point where it could have been placed in the first occurrence of that sentence without any change of order. Thus it may be said that the two sentences together count as one unit of information.

8 Questions and answers

The information structure of a question and its answer departs from the general rules of information distribution. Concerning the question itself, the concept of more or less predictability of information is related not to the hearer but to the speaker. Gavião interrogative clauses illustrate this clearly, as seen in the examples below. In example 41 the interrogative marker is followed by a marked clause that has the predicate fronted before the subject. This kind of structure might be used, for example, when the speaker encounters the hearer on the trail, so that the subject and the auxiliary action of going are given information. This, of course, corresponds to the general rule that allows fronting only where the topic is given information. Question 42, for instance, can only be asked when it is predictable that the hearer is going to hunt, but the time is not predictable and therefore 'today' is fronted. Question 43, on the other hand, has an unmarked clause following the interrogative marker. This is the most common interrogative structure in that all information in the structure is considered to be unpredictable to the speaker. In questions like 41 and 42 the given information may also be left out, as 44 to 46 illustrate.

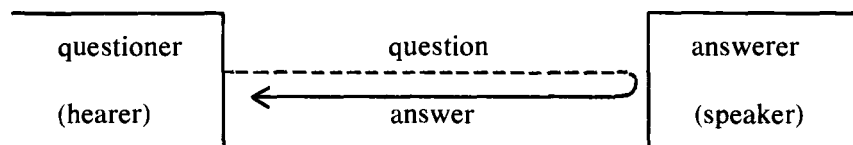
- (41) *té gakorá e-zá-ka-á*
 interr hunt 2sg-non-declar+ present-go-final
 'are you going to hunt?'
- (42) *té àdjür e-zá-ka gakorá-á*
 interr today 2sg-nondeclar+ present-go hunt-final
 'are you going to hunt today?'

- (43) *té e-zá-ka gakorá àdjùr-á*
 interr 2sg-nondeclar+present-go hunt today-final
 'are you going to hunt today?'
- (44) *té máter ále-á*
 interr other=day future-final
 'tomorrow?'
- (45) *té ă*
 interr this
 'this one?'
- (46) *té póhj-á*
 interr big-final
 'is it big?'

Concerning the answer to a question, the following regularity can be observed: the information structure of the answer can be a repetition of the question structure, with no reordering of its elements, as the following illustrates. In example 48 there is a double answer to question 47; that is, the first 'yes' constitutes a clause by itself, and the second 'yes' occurs with other constituents. This is a common practice in Gavião.

- (47) *Té tá-sá-volo a-neva kár-ále-á*
 interr 3pl-nondeclar-come 3rd+reflexive-eat yet-fut-final
 'Are they still coming to eat?'
- (48) *Até-á, até tá-máa-volo a-neva kár-ále-á*
 yes-final, yes 3pl- declar+present-come 3rd+reflexive-eat yet-fut-final
 'Yes, they are still coming to eat.'

This kind of repetition in relation to questions is not quite identical with what was said about repetition in section 7. To ask a question is not normally to transmit information to the hearer, except insofar as it tells him what kind of information he is being requested to give. The information in questions and in their answers is basically the same, and they count as one unit. We may therefore define an **interrogative unit** of information as consisting of a question with its answer, and having the function of conveying information from the answerer to the questioner. Two directions are involved. In the question, the direction is toward the answerer; however, the main direction in which information moves is back toward the questioner. This may be illustrated as follows:



In the definition of predictability of information in section 4 the information structure of questions corresponds with predictability as seen by the questioner. That definition seems opposed to the general concept of cohesion since the questioner is usually viewed as the speaker, and cohesion is supposed to be concerned with predictability to the hearer only. Nevertheless, the definition is correct and according to general concept if, as shown above, the questioner is viewed as the ultimate hearer, the one who receives the information, even though he is the first that utters it.¹³

9 Information structure and intonation

In Gavião discourse two cohesive features are signaled by intonation. The first of these features is information blocking, which means that the information of an utterance is segmented into blocks. These blocks are bounded principally by pauses. Normally, the boundaries of blocks correspond with phrase boundaries, though not always. Whether the blocks are short or long (several constituents or a whole clause) depends on the rate at which information is introduced.

Blocking is used by a speaker to facilitate his hearer's comprehension of the content of the communication. At points where much new information is introduced, as is frequently the case at the beginning of a text, the information blocks are short and, in addition, they are frequently given at slower speed. On the contrary, sentences with little or no new information are uttered in long blocks and rapidly.

The other feature of intonation observed in Gavião discourse is not fully understood. It is intonational salience (stress, vowel length, and late release of stops) at some points, which may be termed points of prominence, though it is not known what kind of semantic prominence underlies them. The frequency of these points and the degree of salience varies from one text to another and surely has to do with the speaker's condition, that is, for example, how excited he is about the information he is conveying or how interesting he wants to make it for the hearer.

Most frequently points of prominence coincide with new information and thus supplement constituent ordering, which is the more general signal. The following examples are the first sentences of a text. (Diagonal lines indicate information blocking and underlining shows points of prominence.)

- (49) *Baráj maâ padére-éhj máh-á kipo-á abój-éhj.*
 Baráj take person-pl declar+past-final hearsay-final friend-pl
 'People took Baráj away, my friends.'
- (50) *Zerebāj-éhj máh èna / maâ-á kipo-á.*
 spirit=like=person-pl declar+past particle / 3sg+take-final
 hearsay-final
 'The witches took him away.'
- (51) *A-djaô sá-káhr / támáh maâ èna kipo-á.*
 3rd=reflexive-play 3sg-dependent+simultaneous 3pl-declar+past
 3sg+take particle hearsay-final
 'While he was playing they took him away.'
- (52) *Gonbe údúr ká máh èna / djigá pâgâ-á.*
 hut near in declar+past particle hunting=shelter make+pl-final
 'He was near the hut making hunting shelters.'

Notes

1 The Gavião language has been classified by Aryon Dall'igna Rodrigues (1966) as belonging to the Mondé family of the Tupi stock. Other languages of the Mondé family are Mondé, Cinta Larga, Suruí, and Arara or Urukú.

Harald Schultz (1955) gives the name Digüt to the Gavião tribe and language, but he was mistaken because that was only one of the names of his informant. The Gavião number approximately 120 Indians living in various small villages around the Pôsto Indígena Igarapé Lourdes, on the Igarapé Lourdes, affluent of the Machado or Jiparaná River in the Federal Territory of Rondônia, Brazil. All Gavião speak their mother tongue and about 15% are bilingual in Portuguese. They are semiacculturated. The author is grateful to the National Indian Foundation (Fundação Nacional do Índio) of the Brazilian Ministry of the Interior for giving authorization to live among the Gavião since 1966 as a member of New Tribes Mission of Brazil.

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Examples in this paper are written in ordinary Gavião orthography. The consonants are **p, b, m, v** [b], **t, d, n, r, s** [ts], **z** [dz], **l, x** [tʃ], **ɟ** [dʒ], **j** [ʒ], **k**, and **g**. ([tʃ], [dʒ] and [ʒ] have laminal alveolar friction, articulated with the lamina of the tongue, as opposed to [ts] and [dz], which are apical). Vowels are **i, e, a, o**, and **u**[i]. Length of vowels is signaled by **h** after them. Tones are symbolized in combination with the nasalization of vowels: **´** high oral, **ˆ** rising oral, **ˆ** high nasalized, **˘** rising nasalized, **˘** low nasalized, and no symbol for low oral.

2 Embedded clauses function as constituents of noun phrases and dependent clauses function as constituents of the clause.

- 3 There are still other structures that function as noun phrases. Demonstratives are particles that occur with nominal phrases or that substitute for them, as in *à kala màga* (this want I) 'I want this'. Numerals rarely occur with other nominals, but frequently substitute for them, as in *pàhdjakáv kala màga* (two want I) 'I want two'. Also structures such as *Zàno sevabá* 'My brother Sevabá' and *talóh pí xi* (ground from gruel) 'the gruel of the gourd' constitute nominal phrases. In constructions like 'I want to eat,' the verb 'eat' is always nominalized and functions as a regular object, but there are a few verbs that have as objects verbs without explicit nominalization, as in the clause below (this problem has not been solved satisfactorily yet): *gakorá matê màga* (hunt command 1sg+declar+present) 'I command you to hunt'.
- 4 A more detailed analysis might show that the meaning is 'got rid of his dreams by letting himself fall', in which case the falling is an adjunct predicate stating the instrument of the main verb phrase. Such adjunct predicates cannot be considered as separate clauses because they may be moved to various positions in the clause. Adjunct predicates are related to secondary sentences, which occur independently as sentences, but are semantically bound to the preceding sentence by stating information that could also be stated in adjunct form. Some kinds of information can thus be given in three different forms: as true adjuncts, adjunct predicates, or secondary sentences.
- 5 **Predication** refers to the combination of all clause constituents while **predicate** refers to the verb phrase, which consists of verb and object.
- 6 *mán* also relates embedded relative clauses to their slot in the noun phrase by representing it in that slot, though the actual clause directly precedes the demonstrative. This is similar to English clefting, as in it is *John who saw it* where the subject is represented by the embedded clause *it is John* and also by *who*. Both Gavião and English have this double representation. *méne* functions equally, but relates complement clauses to their slots in noun phrases.
- 7 As connectors no difference in meaning has come to light so far between the particles *tér* and *bó*. However, in other contexts *tér* has the meaning 'according to expectation' and *bó* has the meaning 'contrary to expectation'.
- 8 Some Gavião texts show also topicalization of whole discourses, paragraphs, and subsidiary paragraphs.
- 9 The boldfaced words in the gloss of examples 16-19 are where the intonational prominence comes in the corresponding English information structure.
- 10 One has to be careful in using initial sentences for evidence of semantic structure because they might prove to constitute special cases. What is shown in these examples, therefore, is not their contrast with other data in the same text, but rather how one differs from the other between texts.
- 11 In some cases it is doubtful whether items should be classified as connectives or as a fronted new information, e.g., *è ká* 'there', which is not always marked by a connector. It occurs as adjunct in other than initial position.
- 12 This conclusion differs from Gundel's work on staging (1974), which emphasizes the possibility of implicit topics that are distinct from subjects.
- 13 This is probably what the information structure of questions in English and other European languages is like. A quick observation seems to indicate two main facts. The first is that the placement of the information center (displacement in pitch) in questions shows that the questioner considers any information he himself cannot predict as being new. The second is that the information center of question and answer tends to fall on the same item.

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