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Moore, Denny

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Conjunction and additive constructions in the language of the Gavião of Rondônia

Conjunção e construções aditivas na língua dos Gavião de Rondônia

Denny Moore 

Museu Paraense Emílio Goeldi/MCTI. Belém, Pará, Brasil

Abstract: As a contribution to the study of complex structures in native Amazonian languages, this article examines the syntax of additives and conjunctions in the language of the Gavião of Rondônia. In this language the particle *kĩĩ* 'also, too, and' is used to form additive ('also') constructions with noun phrases and verb phrases, without creating conjoined syntactic constituents. The same particle is also used to form constructions with conjoined constituents, in which two or more verb phrases or two or more noun phrases are conjoined. The different functions of the particle have different and somewhat complicated syntactic structures. A brief description of basic Gavião syntax is provided, to have a basis for understanding the structure of the additives and conjunctions. Examples are given to describe the patterns observed and to provide tests to determine the constituent structure of the conjoined constructions. Composition rules for conjoined and additive constructions are offered when there is sufficient evidence. The semantic difference between participles and conjunctions is noted. Typological properties of Gavião additives and conjunction are discussed. Conjunction is of the postpositive bisyndetic type. Disjunction, 'or', which also appears in the language, is briefly described.

Keywords: Conjunction. Disjunction. Syntax. Gavião of Rondônia. Additive. Constituent structure.

Resumo: Como uma contribuição ao estudo das estruturas complexas nas línguas nativas da Amazônia, este artigo examina a sintaxe de construções aditivas e de conjunção na língua dos Gavião de Rondônia. Nessa língua, a partícula *kĩĩ* 'também, e' é usada para formar construções aditivas ('também') com sintagmas nominais ou sintagmas verbais, sem criar constituintes sintáticos coordenados. A mesma partícula usa-se para formar construções com constituintes coordenados. As funções diferentes da partícula têm estruturas sintáticas diferentes e um pouco complexas. Uma breve descrição da sintaxe básica gavião é fornecida, para se ter uma base para entender a estrutura de aditivos e conjunções. Exemplos são providenciados para descrever os padrões observados e para fornecer testes para determinar a estrutura constituinte das construções coordenadas. Regras de composição das construções são oferecidas quando há evidência suficiente. A diferença semântica entre gerúndios e conjunções é notada. Propriedades tipológicas da conjunção gavião são discutidas. A conjunção é do tipo bissindético pospositivo. Disjunção, 'ou... ou', que também ocorre na língua, é descrita brevemente.

Palavras-chave: Conjunção. Disjunção. Sintaxe. Gavião de Rondônia. Aditivo. Estrutura constituinte.

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Autor para correspondência: Denny Moore. Museu Paraense Emílio Goeldi/MCTI. Campus de Pesquisa. Coordenação de Ciências Humanas. Av. Perimetral, 1901 – Terra Firme. Belem, PA, Brasil. CEP 66077-530 (dennymoore5@gmail.com).

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INTRODUCTION

The Gavião of Rondônia are a native group of approximately 800 people who live in eastern Rondônia, Brazil. They speak one of the four mutually intelligible dialects of the Gavião-Zoró-Aruá-Cinta Larga language, of the Mondé branch of the Tupi language family (Moore, 2005). This article describes and analyzes additives and conjunction in the language of the Gavião. Conjunction is not common in the language and only nine text examples are at hand to support the analysis. However, more examples were obtained by elicitation with two independent consultants and syntactic tests were performed with these. Some details could not be determined with certainty, but the overall patterns are fairly clear and consistent.

The particle *kíí*, which translates in Portuguese as ‘*também*’ or ‘*e*’ and in English as ‘also’, ‘too’ or ‘and’, appears in both additive and conjunctive constructions, with both noun phrases and verb phrases, which it follows.¹ However, this simplicity is offset by the complexity of the syntactic structures in which the particle occurs. These involve right-hand boundary markers, with each function having a different structure. So it is useful to describe some of the basic Gavião syntax that is relevant for understanding the structure of additives and conjunctions. The syntax is highly regular and amenable to phrase structure analysis, but it is radically different from the syntax of European languages.

BASIC GAVIÃO SYNTAX

Moore (1984) discusses the Gavião syntax in detail. That is the basis for the sketch presented here. A matrix sentence has two initial positions, which may or not be filled, followed by an inner clause, which can be followed by various particles. The basic structure of a non-copula inner (or embedded) clause is a subject – noun phrase (NP) or pronominal clitic – immediately followed by an auxiliary (which marks tense, aspect, sentence functional type etc.), which is then optionally followed by any number of verb phrases (VP) or embedded clauses (S') of certain types (temporal, purposive, desiderative etc.). The VPs and S's can be scrambled in any order with no change in basic meaning. One and only one of these units can be brought forward, under certain conditions, into clause-initial position before the subject and auxiliary. In the informal rule below for non-copula clause composition, the parentheses indicate optionality and the three dots indicate any number.

- (1) Non-copular inner clause basic composition: Subject AUX (VP)... (S')...

Example (2) below illustrates this composition. It has a demonstrative phrase in initial position, a third person plural subject marked on the auxiliary stem, one embedded (postfactive) clause (which contains the VP ‘grow’) and two matrix VPs. One of the VPs, ‘be after that’ translates as a postpositional phrase but is formally a transitive VP with the same distribution as other VPs. The last VP is intransitive, consisting of an intransitive verb stem ‘come’ cross-referenced with the subject, ‘they’.

- (2) [eé bó] [tá-mága [[a-a-ja-ʔ]]_{VP} a-já-boy]s' [eé abí]_{VP} [a-volò]_{VP}s-á
 then FOCUS 3P-AUX 3C-face-enter (=grow) 3C-AUX-POSTFACTIVE that after 3C-come-MARK
 ‘Then they will arrive after they have already grown.’

¹ Transcription: The symbols *c* and *j* denote palatal affricates, *y* the palatal glide, and *s* and *z* dental affricates. The voiced bilabial fricative is indicated by *v* and the glottal stop by an apostrophe. Long vowels are represented by sequences of two vowels. Low tone is unmarked; high tone is marked by an acute accent, rising tone by a circumflex, and alternating tone by a grave accent. Quotation marks indicate direct quotes or thoughts in Gavião, which occur with no explicit word for ‘say’ or ‘think’.

Example sentence with three VPs:

- (3) *eé bó [pa-zé-ena [pa-vánga]_{VP} [ma'é-ena]_{VP} [s-age-éna]_{VP} kí-nap*
 then FOCUS 1PI-AUX.SUBJECTIVE-thus 1PI-run (3s)-find-thus 3s-kill-thus EVIDENCE-INDF
 'Then we run after, finding, killing.' (hunting)

One (and only one) verb phrase or embedded clause can be fronted to a position before the subject and auxiliary under certain conditions. In example sentence (4) below, the VP with 'fan' was fronted. Any one of the four verb phrases in sentence (4) could have been fronted, with no change in meaning except prominence. Notice that it is the object, 'agouti', that is in the hole, though there is no structural indication of that.

- (4) *[[peya teé]_{VP} pa-á [mé-e ná]_{VP} [aza aka]_{VP} [má vã ká]_{VP} kí-nap*
 fan CNTN 1PI-AUX.SUBJECTIVE other-ABSTRACT VBLZ agouti kill other hole in EVIDENCE-INDF
 'Another way to kill agouti in the hole is fanning.' (smoking them out)

The possibility of occurring in initial position is a handy test for constituency: if a sequence of syntactic elements can occur there, then the sequence is one constituent of the clause. This test of syntactic structure proves useful for the analysis of Gavião additives and conjunctions.

The multiple verb phrases are not to be confused with serial verbs. They can be moved, negated, intensified or nominalized individually. They do not form a larger construction which is referred to by a syntactic rule. Qualifying particles, such as *teé* 'continuing' in (4) above, can occur finally in verb phrases, paralleling their final occurrence in noun phrases. Additionally, two other particles can occur finally in VPs, *kíi* 'intensification' and *ôóp* 'negation'. Tests for verb phrases include:

- Movement (scrambling and fronting)
- Negation and intensification
- Nominalization by particles, *mát* 'concrete nominalization' and *méne* 'abstract nominalization'

A notable feature of the syntax is the lack of adverbs and postpositions as word classes, these being instead uninflected verbs and transitive verb stems, respectively. As such, they are the heads of verb phrases. There are three types of VPs, classified by their head. Transitive VPs can consist of an object person clitic or free NP immediately followed by a simple or complex transitive verb stem. Some of these translate as postpositions but their distribution is the same as common transitive verbs such as 'throw'. The form of a transitive verb (or of a noun) which occurs after a NP is referred to here as a STEM, since, while phonologically independent, it is syntactically dependent and different from the free form, if one exists. This stem form has been considered to have a 'relational prefix' in other Tupian families. This is obviously not the case in Gavião since both allomorphs are consonant initial. In (5) below a transitive verb stem and a noun stem and its corresponding noun are illustrated.

- | (5) | NP stem | Prefix-stem | Free form |
|-----|----------------------------|---------------------------|---|
| | NP <i>íkini</i> 'see NP' | <i>ci-kini</i> 'see him' | <i>*íkini</i> (no syntactically free form) |
| | NP <i>sáp</i> 'NP's house' | <i>ci-sap</i> 'his house' | <i>zap</i> 'house' syntactically free form) |
| | *NP <i>zap</i> | | <i>*sap</i> (cannot be syntactically free) |



Examples of simple transitive verb stems are given in (6) below.

- | | | | | |
|-----|---------------|--------------|-------------|---|
| (6) | picáá | 'wash' | kay | 'involve' (main verb or oblique marker) |
| | kátaà | 'cut' | mi | 'use' (main verb or instrumental) |
| | pásana | 'steal from' | ádát | '(be) the height of' |

Examples of VPs with simple transitive verb stems as their head are **eé abí** 'that after' in (2) above and **aza aka** 'agouti kill' in (4) above.

Intransitive cross-referencing VPs consist of a simple or complex intransitive verb stem with a cross-referencing person prefix which agrees in person and number with the subject of the immediate clause. Simple intransitive cross-referencing verb stems include the following examples.

- | | | | | |
|-----|--------------|------------|-------------|---------|
| (7) | kerè | 'sleep' | keyè | 'dream' |
| | senè | 'laugh' | saà | 'break' |
| | kágãà | 'dry (up)' | volò | 'come' |

Examples of VPs with simple intransitive verb stems as heads include **a-volò** '3c-come' in (2) above and **pa-vángã** '1PI-run' in (3) above.

The third type of VP consists of a simple or complex uninflected verb, not a verb stem (Moore, 2004). The simple uninflected verbs include some that have meanings that translate as transitive verbs, intransitive verbs, or adverbs. They are not inflected for subject nor for object. An associated NP can be indicated by the transitive verb stem which marks obliques, **kay** 'involve'. Examples of simple uninflected verbs are given below in (8).

- | | | | | |
|-----|-------------|----------------|---------------|-----------------|
| (8) | gerè | 'pass a night' | páyá | 'break' |
| | líná | 'have a cold' | basana | 'steal' |
| | darà | '(be) easy' | aáyit | '(be in) today' |
| | gíyá | 'well' | gólóá | 'much, many' |

A sentence example with a simple uninflected verb is **peya** 'fan' in (4) above.

The verb phrases and embedded clauses distribute like adjuncts and the classes that are usually adjuncts are instead formally verbal; the distinction is neutralized. They are a constituent of the clause, never part of a VP. The semantic interpretation of a clause is like that of a string of participles, all of which must be of the same event or fact. It is not possible to say, in a single sentence, for example, 'He hunts by day, sleeps at night', since there would be a temporal contradiction. Both 'by day' and 'at night' would indicate the time of the whole clause, not the time of specific VPs. Given the possibility of multiple verb phrases, an interesting question is why VP conjunction would also occur.

The composition of noun phrases is relatively simple in its basic form, which is sufficient here. A simple or complex noun and its following adjective stems may be modified by a preceding demonstrative. This unit may be modified by phrase-final particles, such as **terè** 'true', **téét** 'exact' or **téteé** 'only'. Simple text example:

- (9) *yá sep pére-kôlo tétéé*
 that leaflike.object nature-lacking only
 'Only those photos with no one in them.'

Alternatively, a possessor NP can form a construction with a following simple or complex noun stem and its adjective stems. This unit can be modified by phrase-final particles. Text example with two adjective stems, without final particles:

- (10) *alé-èy pópit sôôt a'âât*
 3S-PL target putrid horizontal
 'Their rotten game laying around' (monkeys that had been shot then lost)

Another relevant aspect of the syntax is the existence of complex syntactic words and word stems. These are (bar-one) constructions, formed by syntactic derivation or syntactic compounding, that distribute within the phrase like simple word classes (nouns, adjective stems etc.) but that consist of more than one simple word. They are intermediate in size between morphological words and phrases. The idea of constructions larger than simple words but smaller than phrases, and the idea that these may show generalizations across word classes is from Chomsky (1970). Selkirk (1983) deals with word syntax and adopts word stems as a syntactic category. For the analysis of Gavião the recognition of complex syntactic words and word stems is motivated by language-internal considerations – they are necessary in order to make adequate explicit rules to generate the observed structures and no others. For example, Selkirk (1983, p. 15) analyzes nominal compounds as recursive but having one level.

- (11) ${}_N[{}_N[{}_N[\text{bath}]_N]_N]_N$ ${}_N[{}_N[\text{room}]_N]_N$ ${}_N[{}_N[\text{towel}]_N]_N$ ${}_N[{}_N[\text{rack}]_N]_N]_N$

However, in Gavião, the head of a nominal compound, the rightmost constituent, can only be a simple noun stem, not a compound noun such as 'towel rack'. To exclude complex heads there must be a distinction between these and the simple heads in Gavião. In the following example (12), the head noun stem, *káli* 'bone-like object', is modified by a complex noun stem composed of two noun stems, *kó* 'mouth' and *sep* 'leaf-like object' (= 'book') and the resulting complex noun stem, 'pencil' is possessed by João. The possessor does not enter into the modifying nominal, which cannot contain a full NP with its determiner or possessor, nor any sentence final particles. Similar restrictions exist for the modifier in nominal compounds in English.

- (12) $[\text{João}]_{NP}$ $[[[\text{kó}]_{NSTEM}]_{NSTEM}]_{NSTEM}$ $[\text{káli}]_{NSTEM}]_{NSTEM}$
 name mouth leaf-like.object bone-like.object
 'João's pencil.'

There is similar necessity for recognizing complex verbs and verb stems as different from simple verbs and verb stems. For example, the causative particle, *matéé*, only forms constructions with preceding simple (not complex) verb stems and verbs, producing complex verb stems and complex verbs, respectively. The complex verb stems and verbs are the heads of VPs. In example (13) there is a complex transitive verb stem, 'cause to take out' and a complex verb, 'cause to meet'. A third VP has a simple transitive head, 'involve', marking the causee.

- (13) *“méne tóót téét bó alóp máà [a-maakáàp [ígí*
 that secure EXACTLY FOCUS he AUX.PAST 3C-peanut take.out
- matéé]_{VSTEM.TR VP} [[*bâyà matéé]_{V VP} [*alé-èy kay]_{VP-á” klíp}*
 CAUS meet CAUS 3S-PL involve-MARK recalled**
- ‘That was true; he had them get together and harvest his peanuts.’

The Gavião system of complex syntactic words also includes complex adjective stems, which are less relevant here. The system is a large part of the syntax and is highly regular. Each simple major category has a complex counterpart. If the task of linguistics is to describe patterns, then that great pattern must be recognized.

TYPOLICAL CHARACTERIZATION OF THE GAVIÃO ADDITIVE CONSTRUCTIONS

Having provided a brief background of Gavião syntax, we will describe the typological behavior of the particle *kíí* in each of its functions before providing an analysis of the constituent structure of the constructions which it forms.

Many languages have words which translate as ‘also’ or ‘too’, as in the case of the Gavião particle *kíí*, which we are referring to as an additive, for lack of a better term. Sometimes, as in the case of Gavião, this is related to conjunction. Mithun (1988, p. 340) claims that additives are often grammaticalized to produce conjunction. She claims that “Nominal conjunctions also frequently develop from a second source, an adverbial particle meaning ‘also, too, as well’. The original function of such a particle is to point out a parallelism between otherwise separate entities” (Mithun, 1988, p. 340). She describes a particle, *hni*, in the language of the Cayuga, which “appears in independent clauses, indicating their connection with other information in the discourse” (Mithun, 1988, p. 340). This particle is like English ‘also’ or ‘too’ in that the parallelism can be with a previous sentence or with a previous NP. For example, in English, semantic parallelism can be expressed between sentences without creating coordinated structures. In (14) below, (c), (d) or (e) are parallel with (b) since they, like (b) specify evidence which could be used to apprehend the malfeasants.

- (14) a. The thieves were easily apprehended.
 b. They left many fingerprints.
 c. Also there were a dozen witnesses.
 d. There were a dozen witnesses too.
 e. And there were a dozen witnesses.

The particle *kíí* is more limited and does not indicate parallelism of sentences in this manner. It does indicate parallelism with NPs (or with VPs) as in this simple English example (15) in which Mary is parallel to Bill in her consumption of pizza.

- (15) Bill ate pizza. Mary also ate pizza.

Summarizing the behavior of *kíí* as an additive, it indicates parallelism with preceding NPs or VPs (but not with sentences), without forming conjunctive constructions. The particle’s behavior in conjunction mirrors that in its additive function: it conjoins only NPs or VPs, never sentences. These limitations reduce the frequency of occurrence of the particle.

Another restriction is that there is no interaction between the particle *kíĩ* and scope or emphasis, as occurs in some languages. These are regarded as criterial for Forker's (2016, p. 69) definition of additives as "linguistic items that are commonly referred to as focus-sensitive operators indicating existential quantification over alternatives with respect to the material contained in the scope and the inclusion of some alternatives as possible values for the open proposition in their scope. . .". She gives an example (Forker, 2016, p. 72) of focus and scope interaction, repeated here as (16) below.

- (16) Mary also said that Peter stole a BIKE.
Mary said that Peter also stole a BIKE.

By contrast, in the additive use of *kíĩ* the item whose parallelism is being marked is only the phrase which immediately precedes the particle, and there is no interaction with emphasis. Therefore, by Forker's definition the particle *kíĩ* would not be an additive. However it is unlikely that something as complex as scope and focus interaction has been described in the 42 languages of her sample. So the particle in its 'also' function will be considered to be an additive on the basis of its use to mark parallelism without conjunction.

THE STRUCTURE OF GAVIÃO ADDITIVE CONSTRUCTIONS

In its additive use, the particle *kíĩ* can occur with a VP or with a NP. When it forms a construction with a preceding VP and there is no following conjoined VP, then it is obligatorily followed by the clitic *-á*, which also marks various other kinds of right-hand syntactic boundaries in Gavião, including those of clauses and quotations. In the following text example of 'also VP', the NP 'our food's place' is verbalized by the verbalization particle *ná* and the resulting complex verb constitutes the VP that is in construction with *kíĩ*, which is followed by *-á*, marking the end of the construction.

- (17) *tó-vít* *yáp* *ná* *kíĩ-á*
1PE-food place VBLZ also-MARK

'Also to be a place for our food.' (sentence fragment, consisting only of an additive VP construction, speaking of another use of ceramic pots)

These constructions distribute like VPs, but because of their anomalous semantics their occurrence (still not entirely known) is more restricted than that of common VPs, sometimes appearing as parentheticals. A composition rule for this type of 'also' construction is given below (18). This is a preliminary formulation that is later revised and incorporated in a more general formulation covering both additive constructions and conjunction.

- (18) VP → VP *kíĩ* *-á*

The particle *kíĩ* can also form an additive construction with a preceding NP. In that case it is followed by the syntactic marker *-á* and a particle, *mát*, plural *mááy*. In the following text example (19), the additive construction is a NP subject of the sentence, appearing before the auxiliary. The part of the sentence before the final particle *kíip* is formally a quote, following a pattern for mythical narratives.

- (19) *ʔè bebê-èy kíí-á má-ày máà-á” kiip*
 that peccary-PL also-MARK NMLZ-PL AUX.PAST-MARK recalled
 ‘Those peccaries were also there.’

The structural analysis of these constructions is not obvious, though the additive construction in subject position in front of the auxiliary must be a subject NP. The general case is that the particle *mát* marks the right-hand boundary of a complex noun (N’), derived in other contexts from nominalizing a preceding VP or a certain type of embedded clause (Moore, 2012a). And there is some evidence, presented later, for the analysis of nominals formed with conjunction as complex syntactic nouns. However, these nominal additive constructions do not seem to be nominalized VPs, since the sequence NP *kíí-á* does not exhibit properties of a verb phrase. So at this point the whole sequence will be specified without internal bracketing in the preliminary composition rule (20) below. Later this rule will be revised and extended to include conjunction.

- (20) N’ → NP *kíí-á mát*

TYPOLOGICAL CHARACTERIZATION OF GAVIÃO CONJUNCTION

Conjunction in Gavião is of the type called postpositive bisyndesis (A-co B-co) by Haspelmath (2007, p. 11). That is, the coordinator (in this case, *kíí*) occurs after each conjoint. An interesting typological fact is that in Gavião the same coordinator is used for both VPs and NPs and the structure of these two types of conjunctive constructions is partly similar, with a right-hand boundary being marked with the syntactic marker *-á* in both cases, verbal and nominal. According to Forker (2016, p. 82), “Constituent coordination by means of additive particles is attested for slightly more than half of the languages in my sample.” However, she states that only in a few languages are these constructions the standard means of conjunction. Instead, they are emphatic conjunction, with a distributive, not a collective meaning. In (21) below, (a) has collective meaning and (b) has distributive meaning.

- (21) a. Paulo ate rice and beans. (He ate them together.)
 b. Paulo ate rice and also beans. (He ate them separately.)

Gavião would be unusual in this respect, since it has standard conjunction marked with the same particle as additives. Interestingly, Gavião also has sequences of additives, which have a different structure than coordinations, and which appear to have distributive meaning. These are discussed in the next sections, together with conjunction. The difference between Forker’s claims (above) and those of Mithun (1988), who sees a frequent relation between additives and nominal conjunction, may in part be due to absence of native North American languages in Forker’s sample.

THE STRUCTURE OF GAVIÃO CONJOINED VERB PHRASES

Verb phrases can be conjoined in Gavião by placing the particle *kíí* after each VP (generally with a comma pause after the particle) and marking the end of the construction with the marker *-á*, as in the text example below. Note that the presence of the phrase-final particle, *teé* ‘continuing’ indicates that the second conjunct is a full VP, not a verbal category of a lower rank.

- (22) eé-éèy bó mága ápékáàt mága kíí. ǎá mága
 that-PL FOCUS AUX big.pot make and this make

teé kíí-á mákii-á
 CNTN and-MARK (3s)-make.PL-MARK

'Those (people) make big pots, make this (type), make lots.'

In this example, the underlined construction of conjoined VPs constitute the first VP of the sentence. The second VP, 'make, plural objects', is a non-coordinated VP not included in the conjunction and not marked with kíí. The order of the VPs can be switched, with no change in meaning, as in the example (23) below.

- (23) eé-éèy bó mága mákii ápékáàt mága kíí.
 that-PL FOCUS AUX (3s)-make.PL big.pot make and

ǎá mága teé kíí-á -áá
 this make CNTN and-MARK -MARK

'Those (people) make big pots, make this (type), make lots.'

Note that the two conjoined VPs are parallel (both have specific types of pottery as objects) in a way that the non-conjoined VP, 'make plural objects' is not.

Any number of VPs can be conjoined. In the following approved example, the construction with three VPs occurs in initial position, before the subject and auxiliary. This proves that the construction is one constituent of the clause, since there is a limit of one constituent in this position.

- (24) bebe aka kíí. ibalà kíí. berea kíí-á
 peccary kill and dance and sing and-MARK

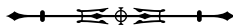
tá-máge-éna bebe aka-p ká-á
 3P-AUX-thus peccary kill-NMLZ in-MARK

'They kill peccaries, dance, and sing in the peccary killing (festival).'

Note that in the above example two subtypes of VP are conjoined: the head of the first is a transitive verb stem and the heads of the second and third are uninflected verbs (Moore, 2004). All subtypes of VPs can be conjoined to each other. In the following approved example, an uninflected verb is conjoined to a complex uninflected verb consisting of a NP verbalized by the verbalization particle ná.

- (25) berea kíí. koláp ná kíí-á tá-máge-éna ibalà-p ká-á
 sing and flute VBLZ and-MARK 3P-AUX-thus dance-NMLZ in-MARK

'They dance and play flutes in the festival.'



An interesting question is what the semantic difference is between multiple non-conjoined VPs behaving like adjuncts and the same VPs conjoined. Why have both? One reason is to call attention to parallelism. Another relevant consideration is that conjunction may make co-occurrences of VPs possible that would otherwise not be acceptable because of the same-event restriction for clauses. Without conjunction, the following sentence was judged unacceptable because of the contradiction in distance.

- (26) **gâla káp ma'á pa-mága pa-zígi boligóòv-á*
 forest seed get 1PI-AUX 1P-near distant-MARK
 *'We gather forest seeds near to us, far away.'

In this case, conjunction appears to create a pair of parallel localizations which distribute as one VP, resolving the contradiction.

- (27) *gâla káp ma'á pa-mága pa-zígi kíl boligóòp kíl-á áá*
 forest seed get 1PI-AUX 1PI-near and distant and-MARK MARK
 'We gather forest seeds near to us and far away.' (OK)

MULTIPLE ADDITIVE VP CONSTRUCTIONS

Sometimes two additive VP constructions occur in the same sentence. In these cases they appear to be just two VPs and not a conjoined structure, as in the following text example.

- (28) *aáv-á, goyát ná vétéét pa-máge-éna goyán-éèy tóló ká kíl-á.*
 yes-MARK spirit VBLZ same 1PI-AUX-thus spirit-PL long.PL in also-MARK

áp cīik ká kíl-á áá goyát dóol-éèy ná-á
 flute small.PL in also-MARK this spirit line-PL VBLZ-MARK
 'Yes, we're going to continue with those Goyát things, with long Goyát (flutes), with short flutes, with the Goyát file dance.'

One possible interpretation of the two additives in sequence is that the meaning is distributive, not collective as would be the case in true conjunction. That is, the two types of flutes will be used separately. Within the scope of a syntactic nominalizer whose scope is one VP, conjoined VPs were accepted but a double additive sequence was not accepted.

- (29) *pīlíp ci piri kíl. īip káp páṇá kíl-á méne*
 copaiba liquid take.out.PL and tree seeds get.PL and-MARK NMLZ.ABS

ákinì tá-mága a-volò-á
 see 3P-AUX 3C-come-MARK
 'They come see the collecting of copaiba oil and gathering of forest seeds.' (OK)

- (30) **pílip* *ci* *píri* *kíí-á* *îip* *káp* *páná* *kíí-á*
 copaiba liquid take.out.PL and-MARK tree seeds get.PL and-MARK

méne *ákinì* *tá-mága* *a-volò-á*
 NMLZ.ABS see 3P-AUX 3C-come-MARK

*'They come see the collecting of copaiba oil and gathering of forest seeds.'

In the two examples above, it appears that in (29) there is one VP composed of two conjoined VPs, whereas in (30) there are two additive constructions which do not form a more inclusive single VP, thereby violating the scope restriction of the nominalization particle. The above examples (22), (23), (24), (25), (27), and (29) indicate that conjoined VPs appear to be a VP at the level of clause constituent, based on their movement and occurrence and the fact that they can be nominalized syntactically. There is no evidence at hand for a lower level (less than VP) constituent, such as a complex verb (V'), in these conjoined constructions, though that cannot be ruled out at this point.

A tentative diagram for the surface structure of binary VP coordination is offered below in Figure 1, based on language-internal evidence. A feature, [+CONJ], is used to mark the conjoined VPs, whose behavior may differ from that of ordinary VPs. For example, it is not yet known if the conjoined VPs can be causativized syntactically as can ordinary VPs (Moore, 2014). The sequence VP – *kíí* appears to be a constituent since it is repeated and cannot be interrupted internally. A hierarchy of VPs is recognized, using prime notation, the most inclusive having the syntactic marker *-á* as its right-hand constituent.

The phrase structure rules which correspond to the diagram, but which permit non-binary VPs, are given in (31a-31c) below. The notation $X \rightarrow Z^1$ means that X is composed of one or more Zs.

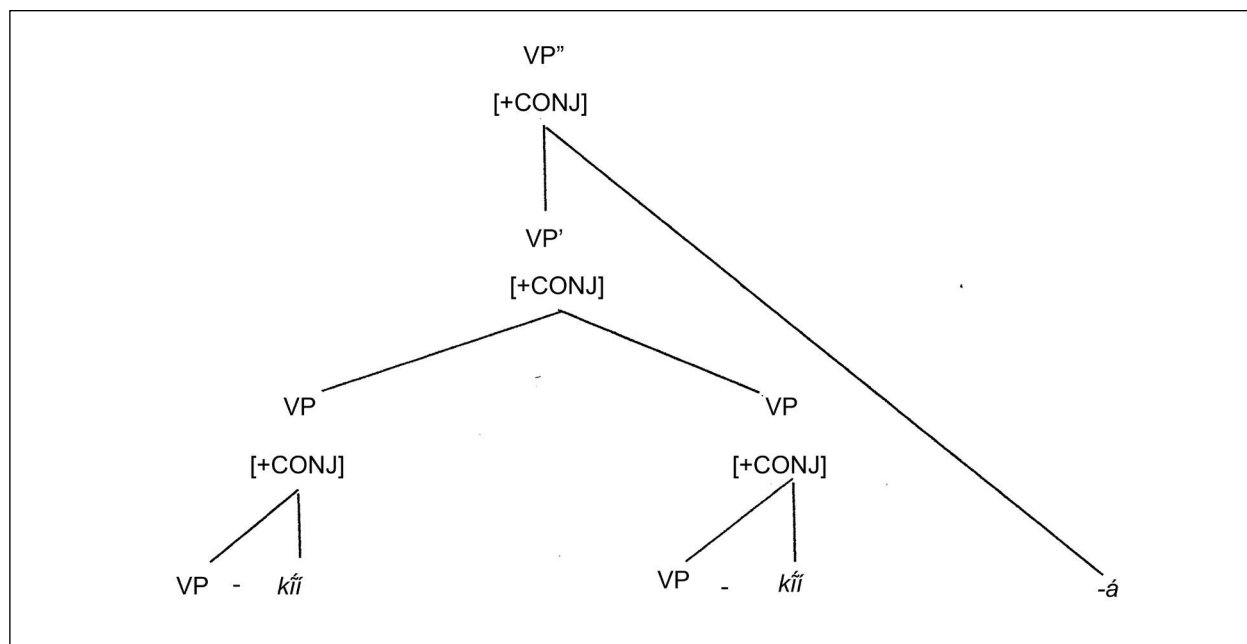


Figure 1. Tentative diagram of verb phrase conjunction.

(31a) VP" → VP' -á
 [+CONJ] [+CONJ]

(31b) VP' → VP'¹
 [+CONJ] [+CONJ]

(31c) VP → VP kîi
 [+CONJ]

In common language, these rules state that a conjunctive verb phrase construction has the syntactic marker *-á* as its right-hand constituent and one or more VP conjuncts joined together as its left-hand constituent. Each conjunct consists of a VP followed by the conjunctive particle *kîi*. Note that this rule now produces 'also' VP constructions – when there is only one conjunct selected in rule (31b). As such it replaces rule (18) above.

THE STRUCTURE OF GAVIÃO CONJOINED NOUN PHRASES

Two or more NPs can be conjoined by placing the particle *kîi* after each, then marking the right boundary of the series of NPs so marked with *-á*, and then marking the resulting sequence as a complex syntactic noun with the particle *mát*, as in the following text example. Note that the demonstratives 'that' inside the conjuncts indicate that the conjuncts are NPs, not nouns.

(32) *"mát va téét bó jè kíríyáá kîi, jè vásâ-ày kîi.*
 that eat exact FOCUS that all INTENS that tapir-PL and

jè nekó-èy kîi. jè poó pagá-ày
 that jaguar-PL and that creature offspring-PL (=animals)

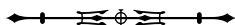
kîi-á má-ày mé-ena-á" kîip
 and-MARK NMLZ-PL AUX.PAST-thus-MARK recalled

'All (of them) were eating that, the tapirs, the jaguars, all those animals were doing that.' (The sequence *jè kíríyáá kîi*, appears to be parenthetical, set off by a comma pause, to emphasize how many participants there were. Notice the collective meaning of the conjunctive construction.)

In NP conjunction the syntactic marker *-á* occurs obligatorily and is immediately followed by the nominalizer, as in this approved example.

(33) *cíboójaá kîi mooyáá kîi-á mát mága aa-vii eéna mát ké-ena-á*
 manioc and cará and-MARK NMLZ AUX 3C-cook thus NMLZ in-thus-MARK
 'Manioc and cará cook like that in that (pot).'

The same sentence with another, internal *-á* is not correct.



- (34) *cíboójaá kíí-á mooyáá kíí-á mát mága aa-vii eéna mát ké-ena-á
 manioc and-MARK cará and-MARK NMLZ AUX 3C-cook thus NMLZ in-thus-MARK
 *'Manioc and cará cook like that in that (pot).'

However, another attested pattern contains two adjacent nominal 'also' constructions, as in this text example.

- (35) cíboójaá kíí-á mát mooyáá kíí-á mát mága
 manioc also-MARK NMLZ cará also-MARK NMLZ AUX
aa-vii eéna mát ké-ena-á
 3C-cook thus NMLZ in-thus-MARK
 'Manioc and cará cook like that in that (pot).'

Possibly this structure is used because the two foods are not being cooked together. That is, this would be another example of distributed meaning in a series of additives, different from that of true conjunction. In principle, everything before the auxiliary is the subject and should be one constituent, of the clause. However, exceptionally, lists may occur in initial position, so the example is interpreted as only a list of two NPs. Another example with two individual nominalizations was judged intelligible but marginal.

- (36) cíboóyaá kíí-á mát mooyáá kíí-á mát kalà máoro mága-á
 manioc and-MARK NMLZ cará and-MARK NMLZ want Mauro AUX-MARK
 'Mauro wants manioc and cará.' (marginal)

More tests and natural examples are needed to resolve the constituent structure of this minor pattern of repeated additive constructions of NPs.

In the case of the nominalized structures formed by sequences of conjuncts ending in kíí-á followed by the concrete nominalizer mát, some evidence for the category of the whole resulting construction (underlined) is in the following two approved examples. In (37) conjoined VPs are nominalized and then the resulting construction modifies a noun stem, sep, that means 'leaf like object' (in this case, 'photo').

- (37) yá natáó ká kíí ibalé-e ká kíí-á mát sep ákiní
 that Christmas in and dance-NMLZ in and-MARK NMLZ leaf see
 'See those photos of Christmas and of the festival.' (fragment)

In the approved example (38) below, conjoined NPs marked with a final -á occur before the nominalizer mát and the whole resulting construction modifies the noun stem káp 'small round object' (in this case 'seed').

- (38) melásiá kíí abóbora kíí meláo kíí-á mát káp ma'á cipiábíit máa-á
 watermelon and squash and melon and-MARK NMLZ seed get name AUX.PAST-MARK
 'Cipiábíit got watermelon, squash, and melon seeds.'

These two examples furnish evidence for the category of conjunction constructions which end in the nominalizer *mát*. Both *sep* 'leaf-like object' and *káp* 'small round object' are members of a class of (shape) noun stems which can only be modified and cannot be possessed directly (Moore, 2012b). Their modifier can be a noun or noun stem, possibly with its adjectives, or a syntactic noun or noun stem, possibly with its adjectives, but not a full NP, with its possible possessor, demonstrative and particles. The resulting modifier-head construction is a syntactic noun, formed by syntactic compounding, which distributes within the phrase like a simple noun. Since the nominalized conjunction in example (37) modifies *sep* it must be a complex syntactic noun, N'. Likewise, the construction ending in *mát* in (38) modifies *káp* and must be a complex syntactic noun, N'.

A second reason to think that that is the case is the fact that the nominalizations formed by the syntactic nominalizers, *mát* 'concrete nominalization' and *méne* 'abstract nominalization' are, in all other environments (nominalizing a preceding VP or a preceding subordinate clause of a certain type), syntactic nouns, N' (Moore, 2012a). In text examples, the nominalizing particle is the concrete nominalizer, *mát*. However, in approved example (29) above, the nominalizer is abstract, *méne*. The abstract nominalizer's occurrence may be rare for semantic reasons or it may be grammatically marginal. It is not possible to determine which at this point.

Another question is the internal structure of the NP conjunctions. Figure 2 offers a tentative diagram of the surface structure of a binary nominal conjunctive construction, based on language-internal evidence. The sequence NP - *kíí* appears to be a constituent, since it is repeated and cannot be internally interrupted. The two conjuncts, always together, form a constituent in construction with the syntactic marker *-á*. This parallels the structure of VP conjunction. However, there is one more level in NP conjunction—the obligatory marking of the right-hand boundary by the particle *mát*, which produces a syntactic complex nominal. This occurrence of *mát* with preceding nominals only occurs in additive and conjunctive constructions and the feature [+CONJ] permits this and identifies the construction as additive or conjunction for any rules that are sensitive to that fact.

The phrase structure rules which correspond to the diagram, but which permit non-binary NPs, are given in (39a-39d) below. Again, the notation $X \rightarrow Z^1$ means that X is composed of one or more Zs. The possible occurrence of the other, abstract, nominalizer, *méne*, is omitted for the time being.

$$(39a) \quad \begin{array}{ccc} N' & \rightarrow & NP'' \quad \text{mát} \\ [+CONJ] & & [+CONJ] \end{array}$$

$$(39b) \quad \begin{array}{ccc} NP'' & \rightarrow & NP' \quad \text{-á} \\ [+CONJ] & & [+CONJ] \end{array}$$

$$(39c) \quad \begin{array}{ccc} NP' & \rightarrow & NP' \\ [+CONJ] & & [+CONJ] \end{array}$$

$$(39d) \quad \begin{array}{ccc} NP & \rightarrow & NP \quad \text{kíí} \\ [+CONJ] & & \end{array}$$

In common language, these rules state that a conjunctive noun phrase construction is a complex syntactic nominal that has the particle *mát* as its right-hand constituent. Its left-hand constituent is composed of one or more NP conjuncts

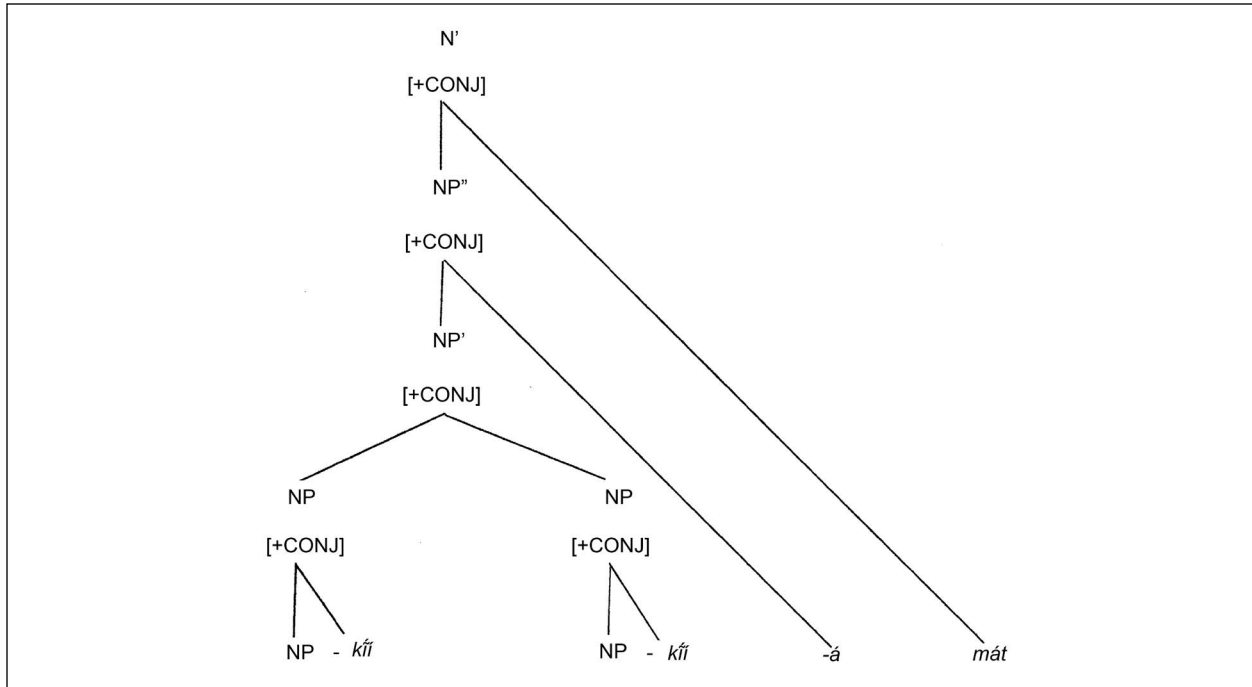


Figure 2. Tentative diagram of noun phrase conjunction.

in construction with the syntactic marker **-á**, which marks its right-hand boundary. Each conjunct consists of a NP followed by the conjunctive particle *kíí*. Note that this rule now produces additive NP constructions – when there is only one conjunct selected in rule (39c). As such it replaces rule (20) above.

DISJUNCTION

Two native consultants agree that disjunctive, that is, 'or' constructions, can be formed from conjunctive conjunctions by adding the phrase-final particle *teé* 'continuing' after the close of the conjunctive construction. This particle does not have a close correspondent in English. It means that something previous is continuing or that some current process is continuing. It appears in example sentences (4) and (22) above. How this gives the meaning of 'or' when following a conjunctive construction is not clear, but consultants explicitly say that that is what it does. An approved example with VPs follows.

- (40) *gakoráá kǫ́. bolíp ígí kǫ́-á teé páblo máa-ka-á*
 hunt and fish take.out and-MARK CNTN Paulo AUX-go-MARK
 'Paulo is going hunting or fishing.'

An approved example with disjunction of NPs:

- (41) *migéó kîí. páólo kîí-á mât téé mága pa-vit má-vii ále-á*
Miguel and Paulo and-MARK NMLZ CNTN AUX 1PI-food TRANS-cook FUTURE-MARK
‘Miguel or Paulo will cook our food.’

CONCLUSION

On the basis of an analysis of the overall syntax of the Gavião language, careful syntactic tests indicate three different constructions (or sequences) involving the particle *kĩĩ*. These are formed with NPs or VPs. They are summarized in Table 1 below. The clitic *-á* marks a right-hand boundary and the particle *mát* marks the right-hand boundary of a complex syntactic noun.

Table 1. Constructions discussed.

Construction or sequence	Composition	Meaning
Additive	VP <i>kĩĩ-á</i>	'Also, too'
	NP <i>kĩĩ-á mát</i>	Parallelism with antecedent phrase
Sequence of additives	VP <i>kĩĩ-á</i> , VP <i>kĩĩ-á</i>	'And also'
	NP <i>kĩĩ-á mát</i> , NP <i>kĩĩ-á mát</i>	Parallelism between phrases, distributed meaning
Conjunction	VP <i>kĩĩ</i> , VP <i>kĩĩ-á</i>	'And'
	NP <i>kĩĩ</i> , NP <i>kĩĩ-á mát</i>	Conjunction of parallel phrases, collective meaning

Some comments are in order. The additive VP construction and the conjunction of VPs both produce a VP, though the possibility cannot be excluded that at a lower rank the construction is a complex syntactic verb. The additive NP construction probably produces a complex syntactic noun, since that is what the conjunction of NPs produces. The sequence of additive constructions do not form a construction. They just occur like a string of the corresponding non-additive constructions. The bar-one level of syntactic words is highly productive in Gavião, but it is surprising that the rank of the coordination construction, N', would be lower than the rank of the conjuncts, NP. Comma pause is indicated in the table but has not been systematically investigated. Intonation or emphasis has not been found to be relevant for Gavião syntax, where there are a wealth of particles to indicate doubt, opinion, contrast, non-assertion, tag question etc.

Another interesting typological fact is that the same particle, *kĩĩ*, is used both in conjunction and in the additive 'also'/'too' constructions which link parallel items without forming coordinated structures. It is also interesting that the additive expressions can occur in sequences of at least two, without forming a construction. The semantic difference between these and the conjoined structures seems to be that the former has distributed meaning and the latter collective meaning. Another significant typological fact is that the same particle is used for both VPs and NPs, though not for clauses or other categories. However, its versatility involves different and rather complicated syntactic structures in each different function, using right-hand boundary markers, *-á* and *mát*, which in other contexts mark the boundaries of complex syntactic words.

It is tempting to imagine a diachronic origin of conjunction from sequences of the additive constructions, somewhat similar to Mithun's (1988, p. 340) scenario, but with verb phrases as well as noun phrases. However, the Gavião case does not look like phrases with a following particle which come to merge over time. Rather, given its structural complexity, it looks more like active structure building on a productive template, such as that of complex syntactic words, using boundary markers familiar in other contexts.

A plausible, though highly speculative, scenario for the development of conjunctions in Gavião would start with VPs, which often occur in sequences, unlike NPs. A next step would be the occurrence of the particle *kĩĩ* after one or more of the VPs. Then a right-hand boundary marker, *-á*, would be added to indicate scope, creating additives with one VP or conjunctions with two or more. With this pattern established, NPs would imitate it, using the same particle, *kĩĩ*, and boundary marker, *-á*.

However, to maintain the nominal character of the constructions, a nominal right-hand boundary marker, *mát*, would be added after the *-á*. It is noteworthy that, if the constructions did evolve in this manner, then the rules in (31a-31c) and (39a-39d), which were established on purely synchronic grounds, would exactly recapitulate the diachronic sequence, with the lowest level rules, (31c) and (39d), being the earliest stage. Comparative evidence for the diachronic question may exist in the other dialects of the language; there is nothing similar in the sister language of the Paite (Suruí of Rondônia).

Aside from NPs and VPs, one can imagine the conjunction of other categories, such as clauses or adjective stems. However, in past work on conjunctions, consultants have rejected the possibility of conjoining these. The text examples are only of conjoined NPs or VPs. An interesting aspect of conjunction in Gavião is its interaction with the participle syntax of the Gavião clauses, and the semantic differences of the two. Conjuncts must be parallel in some sense, but the restriction on participles is different: they must be part of the same event. Conjunction can, in a sense, overcome this restriction, as in example (27) above.

More text examples and more tests are needed to confirm and extend the preliminary conclusions reached here and to verify the behavior of conjunctions in various syntactic contexts. As has been shown, for example, by Ross (1970), conjunctions have their own peculiarities. These may be lesser in the case of Gavião because conjunction is limited to VPs and NPs and does not apply to clauses. There are clause-linking mechanisms in sentence-initial position which handle syntactic work that is done by conjunction or additives in English. The multiple VPs also reduce the need for conjunction of predicates.

Aside from conjunction, there is disjunction in the Gavião language, briefly described above. A fact of typological interest is that it is built on conjunction but with a second particle, *teé* 'continuing' added to make the construction disjunctive.

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ABBREVIATIONS

1PE	first person plural exclusive	CAUS	causative
1PI	first person plural inclusive	CNTN	continuing
3P	third person	CONJ	conjunction
3C	third person coreferential/cross-referencing	INDF	indefinite
3s	third person singular	INTENS	intensification
AUX	auxiliary	MARK	syntactic right boundary marker
N	noun	PL	plural
N'STEM	complex noun stem	TRANS	transitivization
NMLZ	nominalization	V'	complex verb
NMLZ.ABS	abstract nominalization	V'STEM.TR	complex transitive verb stem
NSTEM	noun stem	VLZ	verbalization

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