

The syntax of OVS word order in Hixkaryana

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Abstract In this paper I propose and motivate a novel syntactic analysis of Hixkaryana, a Carib language spoken in the Amazon in Brazil (Derbyshire 1977, 1979, 1985, i.a.). Hixkaryana displays basic/unmarked Object Verb Subject (OVS) word order, which is found in very few languages of the world (Dryer 2008). I argue that the syntax of Hixkaryana involves (i) head-finality in the A domain, but head-initiality in the A' domain, and (ii) raising of *v*P into the A' domain. My analysis accounts for a constellation of properties in Hixkaryana, including the surface order of constituents (OVS), surface constituency (the object and verb form a constituent that excludes the subject), agreement (prefixal *portmanteau* morphology marking the person of both the subject and the object), and the position of clause-level particles (which are in syntactic second position except for invariantly post-verbal *ha*).

Keywords Syntactic theory · OVS word order · Agreement · Carib

1 Introduction

In this paper I present an analysis of Object Verb Subject (OVS) word order in Hixkaryana, a Carib language spoken by around 600 people in the Amazon in Brazil (Lewis 2009). OVS languages are incredibly rare—the World Atlas of Language Structures (Dryer 2008) documents only eleven OVS languages (out of 1,377 sampled), which are spoken in South America, the Sudan, Australia, and Polynesia. Derbyshire (1987) and Derbyshire and Pullum (1981) cite six more OVS languages, all spoken in South America, bringing the count up to seventeen languages total. For many of these languages, however, OVS coexists with other frequent word orders,

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and there is not enough data available to determine which word order (if any) is the most basic.

Hixkaryana is unique among OVS languages in that it has been amply shown to have OVS as its basic word order, following the extensive and linguistically-informed fieldwork of Desmond C. Derbyshire (1977, 1979, 1985, i.a.). A canonical OVS sentence in Hixkaryana is given in (1):¹

- (1) toto y-ono-ye kamara (Derbyshire 1977:593)
 man 3S.3O-eat-DISTPST.COMPL jaguar
 ‘The jaguar ate the man.’

That OVS word order in Hixkaryana is basic and unmarked is evidenced by the fact that O, V, and S together form a single intonational phrase and OVS order is preferred by speakers, both statistically (from texts and recordings) and based on speakers’ intuitions (Derbyshire 1985:97–99).²

I analyze Hixkaryana’s syntax via the surface order of constituents (OVSSX), surface constituency (O and V form a constituent that excludes the subject), agreement morphology (prefixal *portmanteau* morphology marking the person of both the subject and the object), and the position of clause-level particles (which are in syntactic second position except for invariantly post-verbal *ha*). I propose that there are two key features of Hixkaryana’s syntax. First, headedness in the A and A’ domain differ, with head-finality in the A domain and head-initiality in the A’ domain. Second, a projection directly above TP (headed by the exceptional particle *ha*) attracts *v*P into its specifier.

The paper is laid out as follows. Section 2 introduces Hixkaryana grammar. Section 3 presents previous analyses of Hixkaryana and empirical arguments against them. Section 4 proposes a new analysis, and Section 5 concludes.

2 Basic syntax of Hixkaryana

2.1 Syntactic categories

There are five basic lexical categories in Hixkaryana: nouns (N), adjectives and adverbs (A), postpositions (P), verbs (V), and particles (Prt). Nouns are bare—they are not marked for number, case, or definiteness. Nouns may be marked as ‘collective’, in which case they appear followed by *kom(o)*, indicating that the noun phrase is acting (or being acted on) as a collective group; such an NP will be seen in (5a) and (7).

¹I will use the following abbreviations: 1, 2, 3 = first, second, third person, 1 + 3 = first person exclusive, COMPL = completive, CONT = continuative, DISTPST = distant past, FOC = focus, HSY = hearsay, IMM PST = immediate past, INTENS = intensifier, MISF = misfortune, MOT = motion paradigm for imperatives, N = noun, NMLZ = nominalization, NONPST = nonpast, O/OBJ = object, P = postposition, POSSD = possessed, PRT = particle, RECPST = recent past, S/SUBJ = subject, UNCERT = uncertain mood, V = verb.

²Henceforth all page numbers cited are from Derbyshire (1985) unless otherwise noted.

Verb roots in Hixkaryana are never bare—they appear with prefixal person agreement and suffixal tense/aspect/mood/collectivity inflection.³ The agreement prefixes are *portmanteau* forms encoding the person of both the subject and object for transitive verbs, and just the subject in the case of intransitive verbs. The suffix paradigm is also a set of unpredictable *portmanteau* forms.

The inflectional structure of a verb is schematized in (2) and exemplified in (3), roots bolded. Hixkaryana allows both subject- and object-drop, so the verbs in (3) could constitute whole clauses, as indicated in the translations.

(2) SUBJAGR.OBJAGR-V-TENSE.ASPECT.MOOD

- (3) a. ni- **niki** -yako (p. 196)
 3S go.to.sleep RECPST.COMPL
 ‘He went to sleep.’
- b. i- **homo** -yano (p. 197)
 1S.3O plant NONPST.UNCERT
 ‘I may plant it.’

Agreement in Hixkaryana co-occurs with overt pronouns and full DPs, even when these DPs are not in canonical position, e.g., due to focus (Sect. 2.3).

2.2 Main clauses

Hixkaryana’s unmarked word order is OVS (Derbyshire 1977), as schematized in (4) and exemplified in (5). The alignment of arguments is NOM/ACC.⁴

(4) Unmarked constituent order

- a. Intransitive V: V S
 b. Transitive V: O V S
 c. Directional V: PP V S
 d. Copula: AP/PP Cop S
- (5) a. n-eweh-yatxhe woriskomo komo (p. 31)
 3S-bathe-NONPST.COLL woman COLL
 ‘The women are bathing.’
- b. kuraha y-onyhorye-no biryekomo (p. 31)
 bow 3S.3O-make-IMPST child
 ‘The child made a bow.’
- c. honyko heno mitkoso n-te-ko Waraka (p. 207)
 peccary herd near.to 3S-go-RECPST.COMPL Waraka
 ‘Waraka went near to the peccary herd.’

³For this paper, I put aside the issue of collectivity marking on verbs, whereby a collective subject or object triggers the suffix *-tx-* within the inflectional suffix, as seen in, e.g., (5a). This seems to be an instance of *omnivorous number* (Nevins 2010), whereby a probe is relativized to the feature [plural], and is thus able to agree with any instance of [plural] in its c-command domain. If we take this relativized probe to be on or near T (above *vP*), it is unremarkable that it c-commands both the subject and object and can agree with either.

⁴Derbyshire explicitly argues that Hixkaryana is not syntactically ergative (pp. 98–99).

- d. ohxe rmahaxa n-∅-aha woto (p. 31)
 good very 3S-be-NONPST meat
 ‘The meat is very good.’

The matrix verb always follows its complement and precedes the subject.⁵

Except when focused, all adjuncts/modifiers, (6a), and indirect objects, (6b), uniformly appear at the end of the clause, giving rise to the order OVSX (adjuncts/modifiers and indirect object bracketed):

- (6) a. biryekomo komo y-on-yetxkoni kamara [txetxa
 child COLL 3S.3O-eat-COLL.DISTPST.CONT jaguar forest
 wawo] [amnyehra] (Derbyshire 1979:8)
 in long.ago
 ‘The jaguar used to eat children in the forest long ago.’
- b. yawaka y-im-yako biryekomo [ro-wya] (p. 35)
 axe 3S.3O-give-RECPST.COMPL child 1-to
 ‘The child gave the axe to me.’

Hixkaryana is rich in so-called ‘particles’, many of which are evidential-like, and most of which appear in clausal second position (after the first XP on the spine); the significance of this will be addressed further in Sect. 3.1. Particles are phonologically dependent on the word to their left, though morphologically independent (they do not undergo characteristic phonological processes) and able to bear stress (p. 21). When there are no focused elements (as in (7)–(8)), clause-level particles (bolded in the remaining examples in this section) are postverbal, resulting in OVPRTS word order:⁶

- (7) wewe y-am-etxow **ha-ti** hawana komo
 tree 3S.3O-fell-NONPST.UNCERT.COLL INTENS-HSY visitor COLL
 ‘The visitors will fell the trees (it is said).’ (p. 33)

Note that the ‘second position’ of these particles is not plausibly phonological, since what counts as ‘first position’ can be arbitrarily phonologically short, (8a), or long, (8b).

- (8) a. ∅-to-n **ha-ti** Waraka (p. 128)
 3S-go-IMPST INTENS-HSY Waraka
 ‘Waraka has gone (it is said).’
- b. yawaka y-im-ri xe n-a-y (p. 42)
 axe 3-give-NMLZ desirous.of 3S-be-NONPST.UNCERT
ha-ti Waraka, owya
 INTENS-HSY Waraka 2-to

⁵There is one context in which OSV word order appears in Hixkaryana, triggered by first person exclusive *amna*. *Amna*, as a subject, obligatorily appears left-adjacent to the verb (pp. 9–10). See fn. 10 for how this can be incorporated into my account; see Sect. 3.2 for examples.

⁶For consistency, I adopt Derbyshire’s glosses for particles throughout this paper.

‘Waraka wants to give you the axe (it is said).’
 Lit: ‘Waraka is desirous of giving you the axe (it is said).’⁷

2.3 The left periphery

Hixkaryana’s basic OVS word order can be altered by movement to a unique left-peripheral position (p. 75), e.g., in *wh*-questions, (9a), or for focus, (9b).

- (9) a. [_{WH} onoki] biryekomo komo y-on-yetxkoni (p. 60)
 who child COLL 3S.3O-eat-DISTPST.CONT.COLL
 ‘Who used to eat children?’
 b. [_{FOC} kurum me] **xah ti** Ø-to-txowni **ha** (p. 252)
 king.vulture as MISF HSY 3S-go-IMPST.COLL INTENS
 ‘It was in the form of vultures that they went (it is said).’

Two particles in (9b) directly follow the fronted constituent. Most particles fit within this second-position generalization: particles appear after a fronted constituent when there is one, and after V otherwise (cf. (7) and (8)).

As seen in (9b), there is one notable counterexample to the second-position generalization: the particle *ha* always appears after the verb. Derbyshire glosses *ha* as an ‘intensifier’ but it is somewhat unclear what it actually means or what its function is. Derbyshire notes: “There is one particle that has proved particularly difficult to analyze: *ha*” (p. 160). *Ha* frequently occurs morphologically attached to other particles in OVS clauses with no focused constituent, as seen in (7)/(8), with another example in (10a). Crucially, compare (10a) to (10b).

- (10) a. n-omok-ye **ha-ti**, owto hona (p. 79)
 3S-come-DISTPST.COMPL INTENS-HSY village to
 ‘He came to the village (it is said).’
 b. [_{FOC} owto hona] **ti** n-omok-ye **ha**
 village to HSY 3S-come-DISTPST.COMPL INTENS
 ‘It is to the village that he came (it is said).’

In (10a), the two components of the morphologically complex particle *ha-ti* are unified, both being post-verbal. However, when the locative PP is focused in (10b), the two components of this particle are forced apart. The generalization is that while the evidential *ti* is in strict second position (as are most particles), and thus must follow any fronted constituent, *ha* strictly follows the verb.

2.4 Interim summary: a descriptive checklist

Hixkaryana is solidly OVS. The following is a list of core properties:

⁷I abstract away here from an ambiguity in the interpretation of this sentence caused by the postposition *wya*, which can mark the indirect object or the causee (p. 42).

- (11) Descriptive checklist
- Basic word order: OVS in transitives; VS in intransitives; PPVS in directionals; PredCopS in copula clauses
 - Agreement: verbal *portmanteau* prefix
 - Adjuncts/obliques: stack up following S
 - Focus/*Wh*-: movement to a unique clause-initial position
 - Particles: follow the first XP, with *ha* as an exception (follows V)

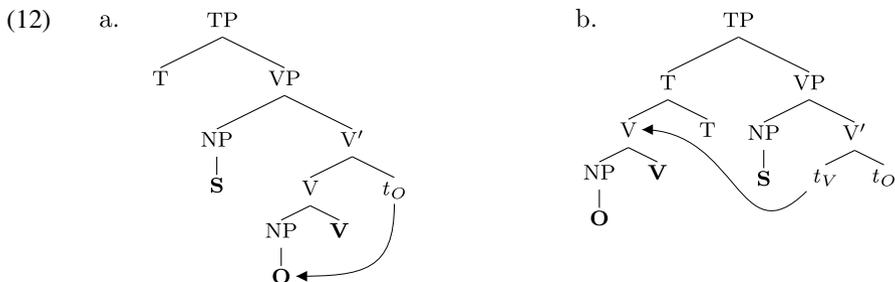
3 Previous accounts

There have been two previous attempts to model the syntax of Hixkaryana: Cline (1986) and Mahajan (2007). The accounts are very similar, so I focus on the more recent account of Mahajan, referring to Cline where credit is due.

3.1 Cline (1986) and Mahajan (2007)

The first component of both Cline's and Mahajan's analyses is establishing the constituency of O and V. Cline (1986:30–31) shows that the evidential particle *tí* is a strict second position particle at the clause level, as was illustrated earlier in (10). Since *tí* will always directly follow a fronted constituent if there is one, (10b), yet follows V otherwise, (10a), it must be that O and V form a constituent, hence, are treated as a unit by second position particles. As further evidence for the tight clustering of O and V, Mahajan notes that in general, O and V cannot be split by adjuncts or particles.

Mahajan (2007) proposes that clauses in Hixkaryana are underlyingly SVO. OVS word order is derived via cliticization of O onto V, (12a), and the subsequent raising of V to T, (12b). Mahajan equates this derivation to Irish (McCloskey 1996), as there is V-to-T movement and the subject stays *in situ*. Unlike in Irish, however, cliticization of O onto V before V raises in Hixkaryana results in OVS word order instead of VSO.



This cliticization of complement to head occurs for all lexical categories and their complements, deriving Hixkaryana's surface head-finality.

Unlike the case in (13) and (14), the object is provably not fronted in sentences like (15). As discussed in Sect. 2.3, there is a unique clause-initial position for a prominent/fronted constituent. If the object were fronted in (15), then its occupation of this unique position would block any other fronting. However, an oblique constituent may in fact be fronted in an OSV *amna* sentence, (16):

- (16) [FOC owto yoh me] Kaywerye **amna** n-wahanonka-ye
 village chief as Kaywerye 1 + 3 3S-choose-DISTPST.COMPL
 ‘We chose Kaywerye to be (village) chief.’ (Derbyshire 1979:103)

Since a PP is able to appear in a fronted position in (16), this shows that the object in OSV sentences is not in a fronted position, i.e., has not moved; *amna* must intervene between O and V while O is in its canonical position.

The most obvious way to account for *amna*’s unique position among subjects is to take *amna* to be a clitic (which is precisely what I will later argue to be the case, fn. 10). However, if the object is also a clitic, as under Mahajan’s (2007) account, then we expect *amna* to appear further from V than the object, since the object is merged first and therefore would cliticize to V first.

Finally, under Mahajan’s account, it is difficult if not impossible to explain why the head-level constituent in T (which contains O and V, (12b)) is treated on par with fronted XPs by second position particles (seen in Sects. 2.2 and 2.3). Mahajan’s structure would undesirably force particles to be able to appear in two radically different positions: (i) in neutral OVS clauses, between T and the subject in spec-VP; (ii) in a clause with a fronted XP, between XP and T.

In sum, the data points to the fact that the relationship of O to V, while close, is not as close as that of a clitic to a head; the raising-to-T analysis in (12) therefore cannot be correct for Hixkaryana.

4 A new syntactic analysis

This section presents a new analysis of Hixkaryana’s main clause syntax, guided by the descriptive checklist in Sect. 2.4. There are several components to the derivation, each of which will be motivated in turn, starting with the inner workings of the A domain in Sect. 4.1 and then turning to the A’ domain in Sect. 4.2.

4.1 The A domain

4.1.1 Head finality

In the A domain, Hixkaryana is consistently head final. We have seen this in VP, (5), as well as in PP, (6). APs, too, are head final:

- (17) [AP ro-mu-ru yosnaka] n-Ø-aha, o-mu-ru (p. 20)
 1GEN-son-POSSD smaller.than 3S-be-NONPST 2GEN-son-POSSD
 ‘Your son is smaller than my son.’

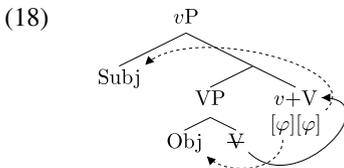
Straightforwardly, then, I take categories within the A domain to be head final.

4.1.2 The inner workings of *vP*

Following Georgi (2011),⁸ I take the person *portmanteau* agreement morpheme to result from a single head containing two person probes, such that there can be full person agreement with two distinct arguments; person probes are represented with $[\pi]$ in subsequent derivations.

I propose that in Hixkaryana, the locus of these person probes is *v*, since agreement is prefixal, and the only other prefixal material on verbs involves morphemes that are most plausibly instantiations of *v*: (i) a ‘detransitivizing’ morpheme, *e-* (several allomorphs), which either indicates that the subject and object are co-indexed (or are acting reciprocally) or derives a passive-like meaning; and (ii) the ‘general prefix’, *i-* (several allomorphs), which (among other functions) replaces person-marking in imperatives (pp. 192–194).

The derivation within *vP* proceeds as in (18) (solid lines for movement, dashed lines for agreement). First, the object merges as the complement of *V*. Next, *v* merges with *VP*, and the first of *v*’s person probes agrees with the internal argument’s person feature. When *v* introduces the external argument, *v*’s second person probe agrees with this argument’s person feature.⁹ *V* raises to *v*, resulting in prefixation of the *portmanteau* agreement onto *V*.¹⁰



4.1.3 Raising of the subject to *spec-TP*

The final step of the derivation in the A domain is the raising of the subject to *spec-TP*, the motivation for which I assume to be EPP/Case-related (Chomsky 2000). I take *spec-TP* to be left-branching, which I will motivate in Sect. 4.2.2.

⁸My thanks go to an anonymous reviewer for drawing my attention to this analysis.

⁹This agreement mechanism is reminiscent of inherent ergative Case, assigned to the external argument upon its merging in *spec-vP* (e.g., Woolford 1997; Legate 2008).

¹⁰Recall from fn. 5 and Sect. 3.2 that when *amna* (1st person exclusive) is the subject, the result is apparent OSV word order. I propose that this is not true OSV word order. Crucially, *amna* is not a regular pronoun, since all other pronouns in Hixkaryana can be dropped (and in some cases are obligatorily dropped), while *amna* can never be dropped (p. 8); further, *amna* does not have a distinct ‘collective’ form, while all other pronouns (except plain first person) do (p. 7). I therefore suggest that *amna* is actually a clitic, instantiated on *v* when *v* agrees with a 1st person exclusive pronominal subject; this pronoun is always null, so the only evidence of the presence of a 1st person exclusive subject is the clitic *amna*. Finally, since *v* is prefixal, it is natural that a clitic generated on *v* will also precede the verb.

4.2 The A' domain

4.2.1 Head initiality

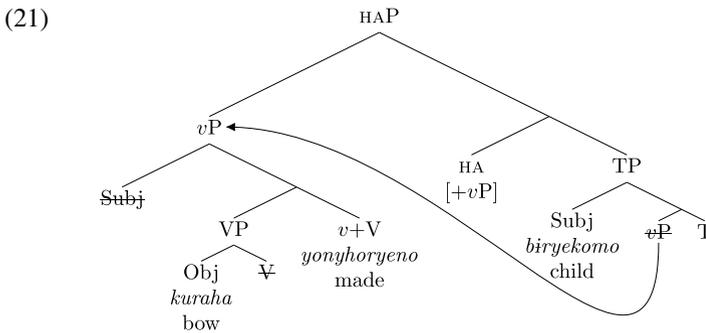
In the A' domain, what we see is quite different from the head-final A domain. Clause-level particles (evidentials, focus markers, etc.) are sensitive to the left edge and occupy syntactic second position, Sect. 2.3. Taking particles to be instantiations of functional heads (Cinque 1999), their clausal second position is straightforward to derive: the functional projections which introduce clause-level particles in Hixkaryana are head initial, and attract the highest XP to their specifier. I return to the mechanics of these particles in Sect. 4.2.3, as it is necessary to first motivate the raising of *vP*.

The A' domain, then, is head initial.

4.2.2 Raising of *vP*

Given the existence of syntactic second position particles in Hixkaryana and the fact that these particles treat the object and verb together as the first constituent (when no constituent is focused), it must be the case that the object and verb constitute the highest (non-spinal) constituent in the clause.

I therefore propose that *vP* (which contains just the object and verb, (19)) raises to a position above the subject, namely, to the specifier of a phrase headed by the exceptional post-verbal particle *ha* (Sect. 2.3), labeled HAP in (21). I have endowed HA with a [+*vP*] feature, but it may be that HA more generally attracts the closest predicate, triggering predicate inversion. Structure (21) is annotated with the sentence in (5b).



The movement of *vP* derives Hixkaryana’s unmarked word order, OVS, as well as creates the right constituency and hierarchy for explaining the behavior of second position particles, addressed in Sect. 4.2.3 below.

I have labeled the head triggering *vP*-raising HA because it seems to be this projection that houses the single exceptional particle, *ha*. Recall from Sect. 2.3 that *ha* always comes after V, even when there is a focused XP, (10). The particle *ha* appears frequently, but does not seem to have any discernible or consistent effect on meaning (pp. 160–161). I therefore suggest that *ha* (alternating with a null allomorph) occupies

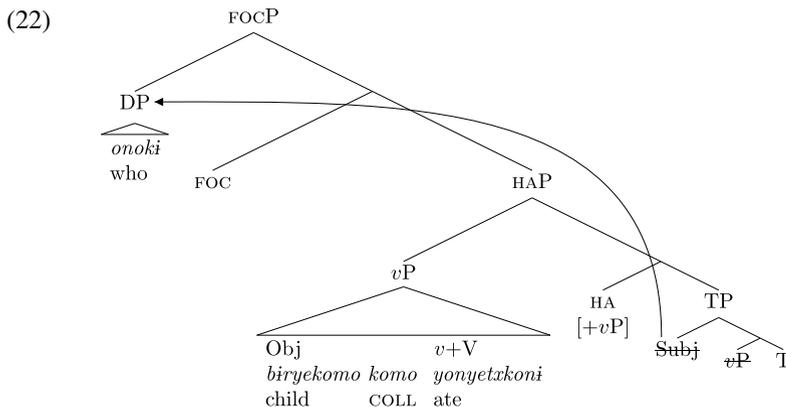
the head of a functional projection above TP, namely, HAP. What makes *ha* unique among the particles is that it has a [+vP]-like feature, such that only vP may occupy its specifier; in other words, HA triggers some kind of targeted predicate inversion. All other particles, on the other hand, carry an indiscriminating EPP feature, a point I return to in the following section.

In Sect. 4.1.3, I proposed that the subject raises out of vP into spec-TP. We can see now why this is necessarily a leftward specifier. All adjuncts/obliques stack up following the subject, OV SX, (6). With the subject in a leftward spec-TP, it is natural that all modifiers/obliques attaching between T and v will appear following the subject, stranded after vP's evacuation, (21). (See also fn. 12.)

If spec-TP were a rightward specifier, there would be no way to account for this post-subject pile-up, since the subject would occupy the highest position in TP. The same holds of an account in which the subject is generated in a high, rightward topic position, as suggested by Derbyshire himself (Derbyshire 1981). Maintaining such an account would require higher rightward A' positions to host the pile up of adjuncts/obliques following the subject. It is not clear what the motivation would be for all adjuncts/obliques to obligatorily move into this high position, given that they do not seem to be topicalized, focused, or in any other way distinguished in regular OV SX clauses like those in (6). Further, it is not a theoretical possibility that all adjuncts/obliques are simply generated high, since we saw in (20) that the subject can bind into them.

4.2.3 Focus and particles

Finally, we turn to the higher A' region. I propose that there is a unique focus position (the landing site for focused/*wh*-elements) above HAP, (22). The tree in (22) is annotated with the sentence in (9a).

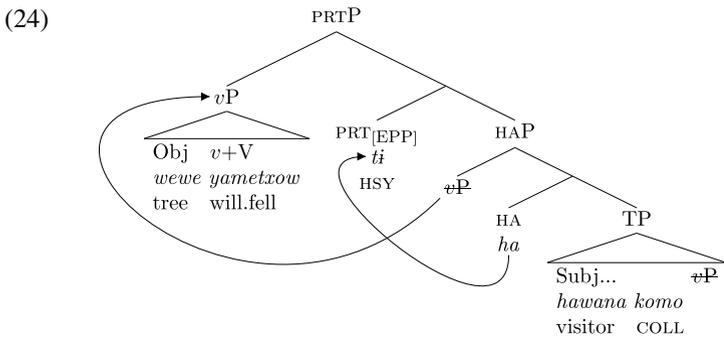
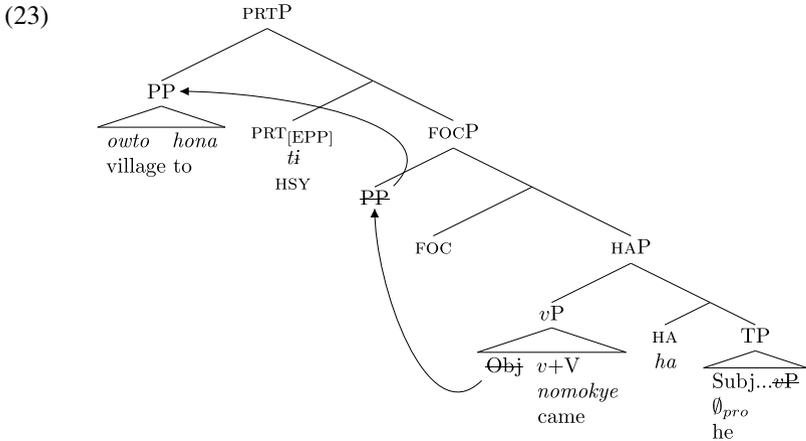


When there are no particles aside from *ha* implicated in a derivation, (22) correctly predicts that *ha* will show up post-verbally, despite the focused XP.

I further propose that all particles aside from *ha* occupy the head of their own functional projections, which I will call PRTP. Unlike HAP and FOC P, PRTP is iterative. Each PRT head carries an EPP feature, indiscriminately attracting the highest XP

into its specifier; the existence of this EPP feature may well be tied to particles' need to lean phonologically to their left.

In a clause with a focused XP, this structure correctly predicts that it is the focused XP that will raise into spec-PRTP, (23), annotated with the sentence in (10b). In a clause with no focused XP, it will be *vP* that raises into spec-PRTP, (24), annotated with the sentence in (7). (I represent (24) with no FOCF at all, though it may be that this projection is present but empty.)

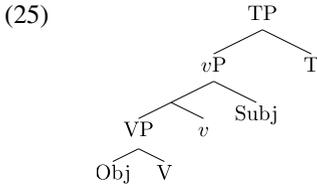


When there is more than one PRTP, the XP in (23) or the *vP* in (24) will be successively drawn up into higher spec-PRTPs.

Notice that (24) makes the prediction that *ha* will be the final particle in any particle sequence at the clause level, since the position of the head HA is fixed as the lowest projection above TP. This prediction is indeed borne out (pp. 160–161): *ha* is either final, or is morphologically attached within the final particle (e.g., *hati*, ‘hearsay’, (10a)/(7)). I assume that this morphological attachment is the result of head movement of HA, as seen in (7)/(24) (represented with a dashed line). However, this head movement is apparently blocked by a contentful/active FOC, such that HA remains independent and post-verbal whenever there is a focused XP, as seen in (10b)/(23).

4.3 Against a base generation account

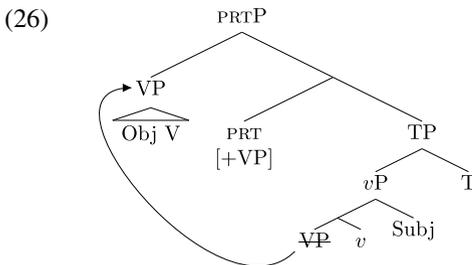
A logically possible alternative to the account that I have proposed is to posit that spec-*vP* is a rightward specifier, and that the subject never leaves this position. In other words, why not simply generate OVS as straightforwardly as possible, with no movements needed to reach the surface order? I represent this hypothetical structure in (25), cf. (21).



This structure does indeed produce OVS word order. Structure (25) can also account for the post-subject pile up of adjuncts/obliques (assuming they sit outside of *vP* in rightward-branching positions), which is where the possibility of a rightward spec-TP fell short, as discussed in Sect. 4.2.2.

While the base generation account, represented as in (25), is appealing because of its simplicity, it cannot account for several basic empirical components of Hixkaryana. First, whereas the analysis presented in this paper can be straightforwardly modified to accommodate adjuncts to VP (see fn. 12), the structure in (25) would incorrectly predict VP adjuncts to appear between the verb and the subject. Second, (25) fails to reflect the fact that the subject can bind into adjuncts of all types, and therefore must have a high c-command position, (20). Finally, (25) fails to capture the behavior of Hixkaryana’s numerous second position particles (Sect. 2.2): it is unclear what mechanism would ensure that particles follow the verb in a clause with no focused elements, since VP is neither the highest (non-spinal) constituent in the clause nor a privileged constituent in any way.

One way to potentially (at least partially) save the base generation account is to endow particles with a [+VP] feature. In a simple clause, this would correctly derive the fact that particles appear post-verbally, while subjects appear finally:



This patch, however, falls short: when any XP is focused, the particles must draw up the focused XP into spec-PRTP instead of drawing up VP. The [+VP] feature posited in (26), then, must somehow convert into an unselective EPP feature (or some sort of focus feature) whenever a constituent is focused.

I therefore reject an account in which OVS word order occurs in Hixkaryana through base generation of O, V, and S in their surface positions.

5 Conclusion

5.1 Summary

In this paper I have proposed and motivated an analysis of Hixkaryana in which OVS word order results from head finality in the A domain and the raising of *v*P into the A' domain, which is head initial. This proposal was shown to have more empirical coverage than earlier accounts of Hixkaryana (Cline 1986; Mahajan 2007) as well as more explanatory power than a base generation account. The proposal defended here accounts for a large cluster of Hixkaryana's basic properties in a unified manner.

5.2 Further directions

Given the proposed analysis of Hixkaryana, there are many topics that merit further research, of which I will list just two. First, particles in Hixkaryana are numerous and complex, existing both at the clause level and the phrase level. I have only touched on the behavior of clause level particles here, but a more detailed look likely has insights to contribute to our knowledge of the architecture of the A' domain and information structure at phrasal levels smaller than the clause. Second, how did Hixkaryana come to have this syntax, and is this syntax derivationally related to that of other closely-related languages, which have a mix of OVS and SOV orders (Dryer 2008)?

As noted at the onset of this paper, OVS word order is extremely rare. If deriving OVS word order were as simple as a head-final VP and a rightward specifier for the subject in *v*P—as illustrated in (25)—then it would be very hard to explain why OVS is not more common. The rarity of this word order is likely telling us something about Universal Grammar, namely, that the relative order of sisters on the syntactic spine is not completely free. Perhaps, for example, the specifier of *v*P can never be a rightward branch.

Much more work—both theoretical and in the field, on Hixkaryana and other OVS languages—is needed, as these languages have special insights to contribute to what the generative limits of modern syntactic theory should be.

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