

A-bar Head Movement: The Case Study of Kawahíva

Wesley dos Santos

1. Overview

This paper investigates the nature of verb movement that derives verb-initial clauses like (1) in the Tupí-Guaraní language Kawahíva¹.

- (1) A-'u ki ji pira ko.
1.A-eat PST I fish REALIS
'I ate fish'.

I propose that the V1 word order in Kawahíva results from A-bar Head Movement of the verb to a specifier position, namely Spec,CP, triggered by the feature [pred] with the EPP property. I show Kawahíva verb movement exhibits properties associated with A-bar movement: it is non-local and has discourse effects. After that, I demonstrate that Kawahíva verb-initial order is not due to VP movement. If the analysis presented here is on the right track, this paper provides a new data point for the typology of A-bar head movement, which includes cases like Bulgarian participle fronting (Harizanov 2019).

The paper is organized as follows: §2 briefly overviews Kawahíva grammar. §3 characterizes verb-initial clauses as involving verb movement with A-bar properties. §4 presents the proposed analysis. §5 considers an alternative analysis for Kawahíva verb-initial clauses, Remnant VP movement, and shows it is not an adequate account of the same facts in Kawahíva.

2. Language background

Kawahíva is a Tupí-Guaraní endangered language indigenous to Brazil and spoken by around 560 people in a population of approximately 1060 people living in the Southwestern Amazon basin. The data presented in the paper comes from novel fieldwork conducted with speakers of the Jupaú (also known by the exonym Uru-Eu-Wau-Wau) and Juma communities.

Kawahíva exhibits verbal agreement and no grammatical case. The verb agrees with either the subject (glossed Set A) or object (Set B); the choice is dependent on a person hierarchy 1>2>3 (Dos Santos 2023). Subject markers are truly inflectional affixes, but object markers are pronominal clitics (Dos Santos 2023). Table (1) presents the two sets of agreement markers. Note Kawahíva does not exhibit agreement with 3rd person objects.

	SUBJECT MARKERS (SET A)	OBJECT MARKERS (SET B)
1st person singular	a-	ji-
2nd person singular	ere-	nde-
1st person inclusive	txi-	nhãnde-
1st person exclusive	oro-	ore-
2nd person plural	pe-	pe-
3rd person	o- ~ v-	—

Table 1: Subject and object markers of Kawahíva.

¹ The glosses throughout the paper follow the Leipzig Glossing Rules with the following additions: A = set A (subject agreement); B = set B (object agreement); WH.OBJ = object *wh*-agreement; SOC.CAUS = sociative causative

Main clauses exhibit VSO word order (2), although A-bar movement can extract elements to the clausal periphery. In contrast, dependent clauses (e.g., complement clauses (2) and adjunct clauses (3)) exhibit a strict SOV order and are nominalized with =*a*. Additionally, main clause verbs, but not dependent clause verbs, can agree with subjects when clause-initial.

- (2) O-kwaham Mandéi=hēa [Clebson=ga uruvia pyhyk=a] ko.
 3.A-know Mandéi=FEM Clebson=MASC catfish catch=NMLZ REALIS
 ‘Mandéi knew Clebson caught many fish.’
- (3) [Tapy’ynha hēa rer-ur=a]=mẽ.
 non.indigene she SOC.CAUS-come=NMLZ=when
 ‘When the non-indigenes brought her.’

A-bar movement of PPs, but not core arguments, interfere with the ability of the verb to appear in clause-initial position and agree with subjects. In these cases, the matrix clause has a strict SOV word order when the clause-initial spot exhibits a postpositional phrase, including frame-setting PPs (e.g., *ypyjive* ‘early on’) (4). Additionally, the clause-final verb does not agree with subjects in such scenarios. I characterize this pattern between initial PPs and matrix verbs as a complementary distribution for the clause-initial spot.

- (4) Ypyji=ve ki ji jawara repiak-i ko.
 early=to/for PST you jaguar see-i REALIS
 ‘Early on, I saw a jaguar.’

Verbs also exhibit voice morphology (e.g., the causative *mõ-*) and adverbial affixes (e.g., *-pam* ‘completely’). Several grammatical categories are marked with particles, including Mood (e.g., *po* ‘irrealis’) and Tense (*ki* ‘past’ and *txi* ‘future’).

- (5) Ere-mõ-mbi-pam po txi nde?
 2.B-CAUS-shut.off-COMpletely IRR FUT you
 ‘Will you turn it off completely?’ (lit.: will you make it shut off completely?)

Finally, in VSO clauses, the order among the core argument of the verb and functional spine is V-MOOD-T-S-O. On the other hand, in PP-initial clauses, the order is PP-MOOD-T-S-O-V.

In brief, Kawahíva verbs i) exhibit subject agreement and ii) precede Mood and Tense when they appear in clause-initial position.

In the upcoming sections, I argue that the VSO order in Kawahíva is the result of A-bar Movement of the verb head to the specifier of a higher position, Spec,CP. First, I show that Kawahíva verb movement exhibits hallmarks of phrasal and A-bar movement.

3. Properties of Kawahíva verb movement

3.1. Movement to specifier

Verbs, when clause-initial, occupy the Spec,CP. Assuming the core sequence C-MoodP-TP-*v*P-V for Kawahíva and the fact that V precedes the heads Mood and T in VSO clauses (5), it follows that V is higher than MoodP and TP. I propose that this position be in the CP domain.

Additionally, the complementary distribution between frame-setting PPs, commonly associated with the CP domain, and the verb suggests the latter compete for the initial spot with phrases, which occupy specifier positions.

In sum, verbs occupy Spec,CP in VSO clauses because they are in complementary distribution with phrasal constituents of this domain. I assume the verb surfaces in Spec,CP as the result of movement. In the next section, I show this movement has properties of A-bar movement.

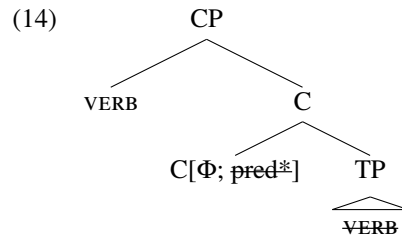
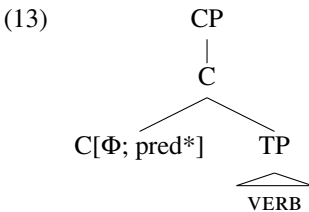
- (10) O-'u ki gã pira ko.
3-eat PST they fish REALIS
'They ate fish.'
- (11) Ere-'u po nde pira?
2A-eat IRR you fish
'Did you eat fish?'
- (12) A'u ki jie ko.
1A-eat PST I REALIS
'I ate.'

4. Analysis

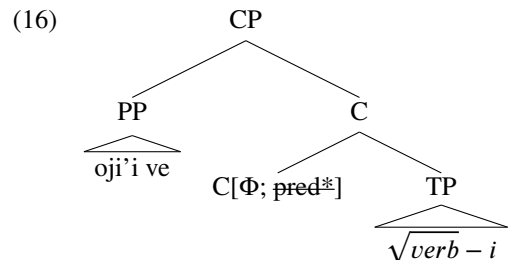
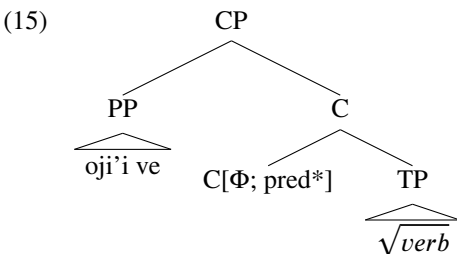
I analyze Kawahíva verb movement (HM) as an instance of A-bar head movement, à la the A-bar movement account of participle fronting in Bulgarian (Harizanov 2019). Harizanov (2019) treats participle fronting in Bulgarian as head movement with A-bar properties based on the non-locality and discourse effects associated with participle fronting in that language.

Similar to participle fronting in Bulgarian (Harizanov 2019), I argue that V1 in Kawahíva is also an instance of A-bar movement of the verb head, given that it is a non-local movement to a specifier associated with an array of discourse effects, as discussed in §3.

The ingredients of the analysis are as follows: a feature [pred] with the EPP-property (indicated with an asterisk) on the C head (Massam 2000), which triggers the movement of verbs and postpositions to Spec,CP. I also assume that the C head comes with a Φ -probe relativized to [Φ -PART-SPKR] (Béjar & Rezac 2009) to account for subject agreement. (13) and (14) illustrate the derivation before and after verb movement Spec,CP. Following the derivation in (14), this structure is shipped off to PF. I assume that the verb in Spec,CP and the C head are subject to M-merger (Matushansky 2006), which creates a complex head by merging the two heads (not shown here).



This analysis accounts for the subject agreement morphology of the verb when it is clause-initial and its absence in dependent clauses (2-3) and PP-initial matrix clauses (4). On the first count, subject agreement on initial verbs is the result of verb movement to Spec,CP (14), and then M-merger with the C head. At PF, the Φ -features on C are spelled out on the head containing the verb. On the second count, PP-initial clauses are the result of the initial PP checking off [pred]. Hence, [pred] cannot trigger verb movement, and the verb stays lower in the clause-final position. I schematize the derivation of PP-initial clauses in (15-16).



Next, I discuss an alternative analysis of the V1 facts in Kawahíva.

5. An alternative analysis: Remnant VP movement

A plausible alternative analysis of Kawahíva V1 clauses is the Remnant VP movement, which has been used to account for V1 in unrelated languages (Clemens & Polinsky 2017, Clemens & Coon 2018, Massam 2000) and the sister language to Kawahíva, Tenetehára (Duarte 2012). This approach argues that V1 languages result from VP movement to a higher specifier position. This derivation of V1 involves two steps: object movement followed by remnant VP movement. Among the advantages of this analysis is the explanatory power to account for the unboundedness property associated with the movement that derives V1, which is unexpected if the movement involved in V1 is phrasal movement.

In what follows, I briefly present two pieces of evidence that a VP movement approach to Kawahíva V1 is not possible.

5.1. NPI licensing

Indefinites in Kawahíva are formed with the enclitic =*mõ* and behave like Negative Polarity Items (NPIs) cross-linguistically. For instance, they can not appear in a positive environment (17). However, they can occur in environments that commonly license NPIs, including polar questions.

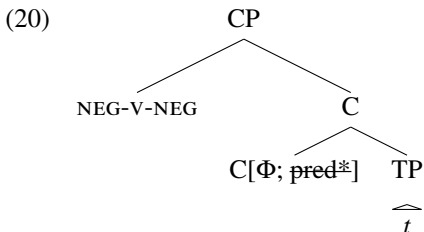
(17) *A-hepia jie matera=*mõ*.
1.A-see I thing=INDEF
'I saw anything.'

(18) Ere-pia po nde matera=*mõ*?
2.A-see IRR you thing=INDEF
'Did you see anything?'

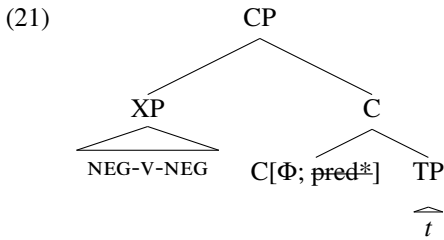
NPIs are also licensed in the context of sentential negation. In VSO clauses, the clause-initial verb appears with the negative circumfix *n(da)-...-i* (19). Negation on the initial verb can license an NPI object.

(19) Nd-a-hepiag-i jie matera=*mõ*.
NEG-1.A-see-NEG I thing=INDEF
'I didn't see anything.'

Assuming NPI licensing by negation occurs under c-command, this data also constitutes strong evidence that V1 in Kawahíva does not involve phrasal movement. If the negative circumfix on the verb can license the NPI object, the verb c-commands the object. This is diagrammed in (20).



However, under the alternative analysis of VP movement, the verb plus negation would not c-command the object from inside the moved phrase, as (21) shows.



5.2. Object extraction

As an account of the V1 matrix clauses in Kawahíva, the Remnant VP approach requires independent evidence that objects evacuate the VP before remnant VP movement. Otherwise, this approach predicts the VOS order in matrix clauses, which Kawahíva does not exhibit. However, there is morphological evidence against the idea that objects move out of the VP in V1 clauses. In Kawahíva, object movement triggers the prefix *i-* on the verb. This pattern is found in (i) object relative clauses (22), (ii) object *wh*-questions (23), (iii) extraposed objects (24), and (iv) object drop (25).

- (22) I-juka-pyr=a.
i-kill-WH.OBJ=NMLZ
'The one who was killed.'
- (23) Gara nde ere-piang [apinaga i-'u=a] rai'i.
what you 2A-see father i-eat=NMLZ YESTERDAY.PST
'What did you see father eating?'
- (24) A'ero hẽa=kuvyra=ga i-mõndo-i, itai'ia.
then her=brother=MASC i-throw-i fishhook
Then her young brother (was) throwing (it), the fishhook.'
- (25) A'ero ki ji i-'u-i ko.
then PST I i-eat-i REALIS
'Then I ate it (fish).'

In contrast, matrix transitive verbs can not bear the prefix *i-* (26). I take the absence of the prefix *i-* in clause-initial transitive verbs as strong evidence that the object does not evacuate the VP in verb-initial clauses.

- (26) I-'u ki ji pira ko.
i-eat PST I fish REALIS
'I ate fish'.

6. Conclusion

In this paper, I have argued that Kawahíva verb-initial clauses result from A-bar movement of the verb. Evidence for this analysis comes from the hallmarks of A-bar movement associated with verb movement in Kawahíva: landing site, unboundedness, and discourse effects. For instance, Kawahíva verbs, when in the initial position, appear in a specifier position, Spec,CP, as the verb competes with other constituents for the clause-initial spot. I considered an alternative analysis that Kawahíva V1 order is due to Remnant VP movement. Data from NPI licensing argues against such an analysis: morphological negation on the clause-initial verb in Spec,CP c-commands object NPIs. This result is unexpected if the verb has undergone phrasal movement.

References

- Béjar, Susana & Milan Rezac. 2009. Cyclic Agree. *Linguistic Inquiry* 40(1). 35–73.
- Clemens, Laura & Maria Polinsky. 2017. Verb-initial word orders, primarily in Austronesian and Mayan languages. In Martin Everaert & Henk C. van Riemsdijk (eds.), *The wiley blackwell companion to syntax, second edition*. John Wiley & Sons, Inc.
- Clemens, Lauren & Jessica Coon. 2018. Deriving verb-initial word order in Mayan. *Language* 94(2). 237–280.
- Dos Santos, Wesley. 2023. Asymmetries among person indexes in Kawahíva. *International Journal of American Linguistics* 89(4). DOI: <https://doi.org/10.1086/726149>, 427–455.
- Duarte, F. B. 2012. Tenetehára: a predicate-fronting language. *Canadian Journal of Linguistics/Revue canadienne de linguistique* 57(3). 359–386.
- Harizanov, Boris. 2019. Head movement to specifier positions. *Glossa* 4(1). 1–36.
- Massam, Diane. 2000. VSO versus VOS: aspects of Niuean word order. In Andrew Carnie & Eithne Guilfoyle (eds.), *The syntax of verb initial languages* (Oxford Studies in Comparative Syntax), 97–116. Oxford: Oxford University Press.
- Matushansky, Ora. 2006. Head Movement in Linguistic Theory. *Linguistic Inquiry* 37(1)(37). 69–109.
- Richards, Norvin. 2014. *Movement in language: interactions and architectures*. Oxford: Oxford University Press.

Proceedings of the 39th West Coast Conference on Formal Linguistics

edited by Robert Autry,
Gabriela de la Cruz Sanchez,
Luis A. Irizarry Figueroa,
Kristina Mihajlovic, Tianyi Ni,
Ryan Smith, and Heidi Harley

Cascadilla Proceedings Project Somerville, MA 2024

Copyright information

Proceedings of the 39th West Coast Conference on Formal Linguistics
© 2024 Cascadilla Proceedings Project, Somerville, MA. All rights reserved

ISBN 978-1-57473-481-2 hardback

A copyright notice for each paper is located at the bottom of the first page of the paper.
Reprints for course packs can be authorized by Cascadilla Proceedings Project.

Ordering information

Orders for the printed edition are handled by Cascadilla Press.
To place an order, go to www.lingref.com or contact:

Cascadilla Press, P.O. Box 440355, Somerville, MA 02144, USA
phone: 1-617-776-2370, fax: 1-617-776-2271, sales@cascadilla.com

Web access and citation information

This entire proceedings can also be viewed on the web at www.lingref.com. Each paper has a unique document # which can be added to citations to facilitate access. The document # should not replace the full citation.

This paper can be cited as:

Dos Santos, Wesley. 2024. A-bar Head Movement: The Case Study of Kawahíva. In *Proceedings of the 39th West Coast Conference on Formal Linguistics*, ed. Robert Autry et al., 512-518. Somerville, MA: Cascadilla Proceedings Project. www.lingref.com, document #3667.