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**ASPECT-BASED SPLIT BETWEEN V-AUX AND AUX-V
ORDERS IN GARHWALI**

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Abstract

The study establishes that the position of the verbal participle and the auxiliary in Garhwali is based on an aspectual split and proposes an analysis to account for this syntactic phenomenon. With the help of data the researcher will utilize the differentiation between two types of head movement à la Funakoshi (2012) to describe an aspectual split in the structure of Garhwali clause which results in two different orders of V and aux, which seems to stem from these two types of head movements in the language. On the one hand, in the progressive and stative perfective aspects, the movement of the verb from v/V to Asp uses a Set-Merge head movement resulting in the verb and the already existing auxiliary merging in a way that allows further operations to target the auxiliary separate from the verb. In contrast, in the habitual and perfective aspects, only the regular Pair-Merge head movement occurs, and the verb head-moves from v/V to Asp, resulting in its inseparable merger with the auxiliary. It is argued that in order to account for the aspect-based split between V-Aux and Aux-V orders, the possibility of Garhwali allowing for Set-Merge head movement alongside Pair-Merge head movement must be allowed.

Keywords: Syntax, Head Movement, Aux-V, Auxiliary Verb, Aspectual Split, Garhwali, Indo-Aryan, Central Pahari

Introduction

Garhwali is one of the two principal Central Pahari (Lit. *of the mountains*) languages and is primarily spoken in the Garhwal region in Uttarakhand, India. The people and their various related Indo-Aryan varieties are both referred to as Garhwali. Garhwali shares its linguistic boundaries with Western Pahari (Himachali) languages on the West, Tibetan on the North, Kumauni on the East, and Hindi (Kauravi) on the South. Two Tibeto-Burman languages are also spoken in Garhwal: Jadi and Rongpa. Although Garhwali is a vulnerable endangered language (Campbell et al. 2017) and is fast becoming moribund, it is still spoken by around three million people, primarily in the state of Uttarakhand.

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Though Garhwali is linguistically an understudied language, some previous accounts have described its word order as SOV (e.g., Grierson 1916; Chatak 1956; Juyal 1976; Masica 1991) in line with its neighbouring other Indo-Aryan (IA), as well as Tibeto-Burman (TB) languages. In the absence of detailed linguistic descriptions of the language and its word order, the presence of Aux-V order as in sentences (1) and (2) have received little attentionⁱ, and its word order features have not been adequately studied.

1. *ram bʰɪtəɾ cʰə sjeʃũ*
Ram inside be.PRS.3SG sleep.S_PERF.MSG
'Ram has been sleeping inside.'
2. *terə pʰon cʰə bəŋŋə hʃã*
your phone be.PRS.3SG ring.PROG.MSG PCT
'Your phone is ringing.'

In (1) and (2), the auxiliary appears to the left of the main verb, which is surprising for an Indo-Aryan language given that members in this language family typically are SOV languages.

This study investigates some properties of the word order of Garhwali, with particular attention to the position of the participial verb and the auxiliary, both with respect to each other and with respect to other elements in the clause. While Garhwali syntax resembles that of Hindi and other Indo-Aryan languages in many respects, the inverted ordering of the auxiliary and the verbal participle in some aspects is strikingly different from the typical Indo-Aryan patterns. The researcher argues that in order to account for the aspectual-based split between V-Aux and Aux-V order, the possibility of Garhwali allowing for Set-Merge head movement alongside Pair-Merge head movement must be allowed.

Aux-Fronting or Aux-V Order

In the progressive and stative perfective aspectsⁱⁱ, the verbal complex is composed of a main verb and an auxiliary. In these periphrastic constructions, the auxiliary, which is the finite verb, precedes the main verb (which occurs as a progressive or perfective participle). As a result of this, the auxiliary appears to the left of the main verb, as in the examples (3)-(6) below.

This aux-fronting phenomenon is restricted to the two aspects (i.e., progressive and stative perfective) as stated above. It does not occur in the habitual and simple perfective aspects, which are also periphrastic constructions composed of a main verb in

participial form and an auxiliary. Aux-fronting also doesn't occur in the simple future tense as this is an analytic tense marked by a suffix on the verb root and needs no auxiliary.

3. *ram ca cʰə piɛŋ laɟiũ əbari*
 Ram tea be.PRS.3SG drink PROG.3MSG this-time
 'Ram is drinking tea right now.'

4. *səroli ɟilli cʰə jaŋi aɟ*
 Saruli Delhi be.PRS.3SG go.PROG.FSG today
 'Saruli is going to Delhi today.'

5. *raju-n səro əpa gʰər cʰə bolajũ*
 Raju.ERG Saru own house be.PST.3SG call.S_PERF.SG
 'Raju had called Saru to his house.'

6. *mi-n bəndi gʰas cʰə kaɟiũ je boŋ-ma*
 1SG- a lot grass be.PRS.3SG cut.S_PERF.SG this forest-LOC
 ERG

'I have had cut a lot of grass in this forest.'

The sentences (3)-(6) are surprising from an Indo-Aryan perspective, where in the case of a periphrastic verb, the auxiliary typically follows the verbal participle in most languages. So, Garhwali in some tense/aspects exhibits the V-Aux order typical of Indo-Aryan, but in other aspects, we find the inverted Aux-V order.

In the habitual and simple perfective aspects, Aux-V order or 'aux-fronting' is impossible as in (7) and (8) below. This is surprising since it means that at least some features of the word order in Garhwali are based on grammatical aspect (or, tense-aspect combination) and are restricted by it. Thus, the occurrence of aux-fronting is not allowed in the habitual and simple perfective aspects.ⁱⁱⁱ

7. **səroli mənɟir cʰə jaɟi roɟ*
 Saruli temple be.PST.3FSG go.HAB.FSG every day
 'Saruli used to go to the temple every day.'

8. **səroli mənɟir cʰə cəli-gɪ*
 Saruli temple be.PST.3FSG go.ABS-
 go.PERF

'Saruli had gone to the temple.'

If we compare these data to Hindi, a typical SOV IA language, and closely related to Garhwali, the occurrence of aux-fronting in Garhwali is quite unexpected. In Hindi periphrastic verbal constructions, the order of the main verb and auxiliary/modals is usually fixed, and even though the entire verbal complex can occur clause-initially and at other positions in marked

constructions due to scrambling, the auxiliary never occurs before the main verb. Consider the sentences below:

9. *ram əbʰi caj pi rəha hɛ*
ram right tea drink PROG.3MSG be.PRS.3SG
now
'Ram is drinking tea right now.' [Hindi]
10. *səʀʊli əj dilli ja rəhi hɛ*
Saruli today Delhi go PROG.FSG be.PRS.3SG
'Saruli is going to Delhi today.'
[Hindi]
11. **ram əbʰi caj hɛ pi rəha*
ram right tea be.PRS.3SG drink PROG.3MSG
now
'Ram is drinking tea right now.'
[Hindi]
12. **səʀʊli əj dilli hɛ ja rəhi*
Saruli today Delhi be.PRS.3SG go PROG.FSG
'Saruli is going to Delhi today.'
[Hindi]

If we compare the Hindi sentences (9)-(12) with Garhwali sentences (3)-(6), we can see that while the auxiliary comes before the main verb in Garhwali, this order yields an ungrammatical sentence in Standard Hindi.

Analysis

In this section, the researcher will provide a structural account for the difference in word order behaviour between the habitual/perfective and progressive/stative-perfective aspect groups, specifically trying to account for the V-Aux vs. Aux-V orders, and the inseparability of the former vs. the separability of the latter.

Given the relevant data regarding the aspectual split in V-Aux and Aux-V orders as seen in previous sections, one would assume that this aspectual split should be dependent on the raising of the verbal head to Asp/Aux. One could assume, that in habitual and perfective aspects, the verbal head raises to Asp/Aux while in progressive and stative perfective aspects it does not raise. In both these cases, the arguments of the verb should also raise in order to produce Aux-V order in progressives and stative perfectives, and V-Aux order in habituales and perfectives. These raising operations would seem to produce the observed surface patterns. However, all accounts

for their raising seem to be problematic for various reasons, as would be described below.

Firstly, one could assume that the raising of the verbal head occurs due to agreement with case-related features, but that seems unrealistic since Garhwali has a split-ergative system similar to Hindi's, and the surface position of the arguments seems to be unrelated to case as the ergative has been analyzed as an inherent case (Anand & Nevins 2006:22). Further, it also seems that non-arguments like VP-adjuncts also would have to vacate the VP area, and case doesn't work well for explaining these.

A second option could be to assume that higher heads have 'bare' EPP features which force arguments and adjuncts to raise to these positions to satisfy this requirement. This scenario would only be possible when the higher heads have exactly the same number of EPP features as the arguments and adjuncts in the clause. This seems unrealistic since different numbers of elements would require to be raised in different types of constructions so that the V and the Aux can be surface-adjacent. This would complicate the matter since some elements could remain in-situ as these elements do not have any internal requirements to move.

There are other complications in this analysis: for instance, if the movement of the arguments is triggered by a general EPP feature on Aux head, then the indirect object would move because it is closer to the head that has the EPP feature. This would not predict the right surface order of constituents.

A third option could be that instead of moving arguments out of the VP, it could be that the entire VP raises to a higher position. In any case, if both the direct and the indirect objects as well as any adjuncts need to move out, it would be better to have the entire VP move up. However, this analysis would only work if the verb moves out of the VP first so as to get the right order for the V and the Aux, at least in progressives and stative perfectives. If the V moves out first, then the VP will become a headless-XP, generally subject to movement restrictions though Funakoshi (2012) shows that headless-XP raising is indeed available under some conditions in some languages. However, a headless-XP raised to a specifier position will be a movement-blocking island. Thus, this approach is simply not possible in Garhwali since scrambling of arguments is very frequent in the language.

All these approaches fail to give us a viable explanation of the data before us. In the subsequent sections, the researcher will present an analysis that can explain the aspectual split in the order of V and Aux in Garhwali. In the following section, the researcher will introduce the “two types of head movement hypothesis” of Funakoshi (2012) and will describe how the Garhwali facts can be explained using these two types of head movements.

Two Types of Head-Movement

In an analysis examining the conditions under which headless XP movement is possible, Funakoshi (2012) posits that—in opposition to the widely held notion of only one type of head movement—there are two types of head movement. The ‘standard’ type of head-movement involves adjunction of a head to another head (Pair-Merge in the terminology of Chomsky 2000, 2004; cited in Funakoshi 2012). Funakoshi (2012:544) posits that head-movement, like XP-movement, can also involve merging via “substitution” (Set-Merge in the terminology of Chomsky 2000, 2004; cited in Funakoshi 2012) at the bar-level. He states his “two types of head movement hypothesis” (p. 544), albeit to explain headless XP-movement- “UG allows head movement via substitution (HMS) as well as head movement via adjunction (HMA)” (Funakoshi 2012:544).^{iv}

Funakoshi (2012:544) explains that while the head movement via adjunction (Pair-Merge) is the standard head movement, another type of head movement which happens via substitution (Set-Merge) is also possible. The latter can only occur when the former is also possible. The schematic structure of the two types of head movement is shown in Figure 1 and Figure 2.

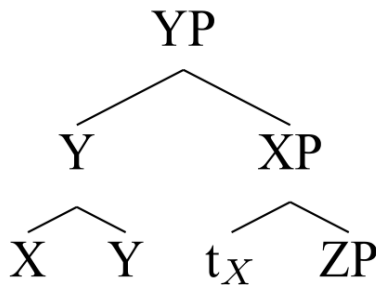


Figure 1: Head movement of X to Y via adjunction (Funakoshi, 2012: 445)

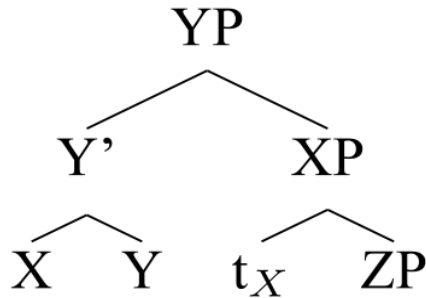


Figure 2: Head movement of X to Y via substitution (Funakoshi, 2012: 445)

The terms *adjunction* and *substitution* have been established as two types of structure building operations in UG by Chomsky (1995, 2000, 2004; cited in Funakoshi 2012) in Government-Binding terms. Chomsky (2000, 2004; cited in Funakoshi 2012) uses the terms *Pair-Merge* and *Set-Merge* for the same operations. Funakoshi (2012) argues that these two types of operations that are used for phrasal movement should also be used for head movement.

In this paper, the researcher will utilize this differentiation between two types of head movement à la Funakoshi (2012) for a different purpose, i.e., to describe an aspectual split in the structure of Garhwali clause which results in two different orders of V and aux, which seems to stem from these two types of head movements in the language.

The researcher assumes two types of head movement as per the following definitions:

- a. **Pair-Merge:** X head-moves to Y, its next higher head, via adjunction, and adjoins to its left, resulting in an inseparable merger. The new Y head is composed of both X and Y. We get the typical Mirror effect of the resulting head being $\langle X, Y \rangle$.
- b. **Set-Merge:** X head-moves to Y, its next higher head, via substitution, resulting in the creation of a new intermediate projection Y', which dominates both of them. The two heads X and Y effectively remain separate but are sisters to each other now.

In the following sections, the researcher will show that Garhwali employs these two types of head movement in its structure and that there is an aspect-based split on whether both types of head

movement are allowed, or not. On the one hand, in the progressive and stative perfective aspects, the movement of the verb from v/V^v to Asp uses a Set-Merge head movement resulting in the verb and the already existing auxiliary merging in a way that allows further operations to target the auxiliary separate from the verb. In contrast, in the habitual and perfective aspects, only the regular Pair-Merge head movement occurs, and the verb head-moves from v/V to Asp, resulting in its inseparable merger with the auxiliary.

In the following section, we will first analyze the structure of sentences in the habitual and perfective aspects, and then analyze the sentences in progressive and stative perfective aspects separately since the two aspect sets behave differently.

In the Habitual and Perfective Aspects

In habitual and perfective sentences, we find that the verbal participle precedes the auxiliary, as in (13).

13. *rajʊli əɾ bʰanʊ gʰɔɾ jãda cʰən*
 Rajuli and Bhanu Home go.HAB.PL be.PRS.3PL
 ‘Rajuli and Bhanu go (*lit.* are going) home.’^{vi}

Here, the auxiliary not only follows the main verb but is also inseparable from it, i.e., the entire verbal complex always remains together. It is not possible for the auxiliary alone to raise to some other position where it can precede the main verb.

In fact, the main verb and the auxiliary often fuse together into a single word as is shown in examples (14)-(17).^{vii} This morphological behaviour of the auxiliary is evidence to prove that it behaves differently in these aspects.

Habitual

14. *mẽ gʰɔɾ jãdõ [jãdo+cʰõ]*
 1SG home go.HAB.PRS.1SG
 ‘I go (*lit.* am going) home.’
15. *rajʊli əɾ bʰanʊ gʰɔɾ jãdən [jãda+cʰən]*
 Rajuli and Bhanu home go.HAB.PRS.3PL
 ‘Rajuli and Bhanu go (*lit.* are going) home.’

Perfective

16. *ram əɾ sita sjegɪn [sjegɪ+cʰən]*
 Ram and Sita sleep.PERF.PRS.3PL
 ‘Ram and Sita have slept.’
17. *mẽ beɸʰɪ-gjũ [beɸʰɪgɪ+cʰõ]*

1SG sit.ABS-go.PERF.PRS.1SG
 ‘I have sat down.’

Sentences (18)-(19) are in habitual aspect. The schematic structure of (18) is shown in Figure 3.

18. *rajoli ḍal k^hāḍi c^hε roj*
 Rajuli lentils eat.HAB.FSG be.PST.3FSG every
 day

‘Rajuli used to eat lentils every day.’

19. *ram sərōli-tē sjo dēḍv c^ho*
 Ram Saruli- apple give.HAB.MSG be.PST.MSG
 ACC

‘Ram used to give Saruli an apple.’

In habitual constructions, as figure 3 shows, the verb is base generated at V and the object originates as a complement to V. The subject DP originates at Spec,vP position where it is ta role. The auxiliary is generated at Hab.

Anand & Nevins (2006:22) have argued that the ergative is an inherent case in Hindi, that “the Hindi ergative subject is not assigned case by and does not agree with T” and that “ergative subjects are in the specifier of TP only”. The ergative and the nominative thereby do not differ in terms of their case assignment in Hindi. It is also true for Garhwali.

In the habitual aspect, in constructions where v is projected, V head-moves to v via Pair-Merge head movement since the v head has V features. The v, which is now (V+v) then head-moves to Hab via Pair-Merge head movement since Hab has v features, and adjoins to its left. The new resultant Hab head is composed of V and the auxiliary /c^hε/, which are fused together in the order <V-aux>. Thus, the verb and the auxiliary cannot be separated, and even in cases of scrambling, or in other constructions, they behave as a single head: there is no way for any subsequent operations to target the aspectual auxiliary head without also affecting the adjoined v/V-head.

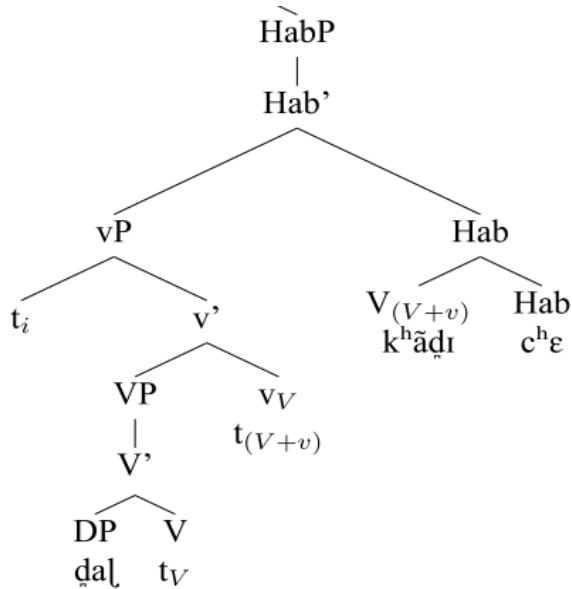


Figure 3

Crucial evidence to support this behaviour comes from interrogatives such as (20) where the aspect head (Hab in this case) that raises further consists of both the verb and the auxiliary. This raising of both of them is only possible if we postulate that the aspect head, composed of v/V+Hab, moves up in such constructions.

20. *kɪɛ bhejɔɔ c^hɔ ram sərɔɪ-tē cɪtʰɪ*
 why send.HAB.MSG be.PST.MSG Ram Saruli- letter
 ACC

‘Why did Ram use to send letters to Saruli?’

In the perfective aspect, the structure and head movement of V is similar to what happens with habitual aspect as shown in (21)-(22). Figure 4 presents the schematic structure of (21).

21. *rajɔɪ-n ɔ̃a| k^hɪ c^hɛ bʲa|ɪ*
 Rajuli- lentils eat.PERF be.PST.3FSG yesterday
 ERG

‘Rajuli had eaten lentils yesterday.’

22. *ram-ən sərɔɪ-tē sjo dɪnɪ c^hɔ*
 Ram- Saruli- apple give.PERF be.PST.MSG
 ERG ACC

‘Ram had given Saruli an apple.’

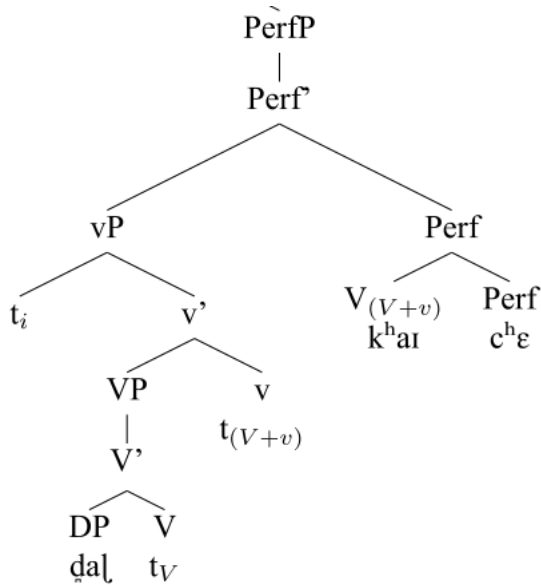


Figure 4

In Progressive and Stative Perfective Aspects

Sentences involving progressive or stative perfective aspect exhibit the opposite surface ordering of the verbal participle and the auxiliary. In these aspects, we find that the auxiliary precedes the verbal participle, as in (23) below.

23. *raʝoli ər b^hanʊ g^hər c^hən jaŋa*
 Rajuli and Bhanu house be.PRS.3PL go.PROG.PL
 ‘Rajuli and Bhanu are going home.’

Here, the auxiliary not only precedes the main verb but it also shows more divergent behaviour: it is separable from it unlike in case of the habitual and perfective aspects. It is possible for the auxiliary alone to raise to some other position where it can be away from the main verb. For instance, in (24), the auxiliary and the verb are discontinuous.

24. *raʝoli c^hε ɐɽʊ kam kaɾŋɪ*
 Rajuli be.PST.3FSG Own work do.PROG.F
 ‘Rajuli was doing her work.’

Unlike the morphological behaviour of the verb and auxiliary in the habitual and perfective aspects that we saw in the previous section, the main verb and the auxiliary never fuse together into a single word in the progressive and stative perfective aspects. The auxiliary is optional in the present tense i.e. it could be

dropped in this tense but it can never fuse with the main verb. (25)-(26) show that the auxiliary precedes the main verb, and that it is optional in one tense but it cannot fuse together with its main verb.

25. *mi gʰɔr (cʰɔ̃) jaŋv /*jaŋɔ̃*
 1SG home be.PRS.1SG go.PROG.MSG
 ‘I am going home.’
26. *mi gʰɔr (cʰɔ̃) jəjũ /*jəjɔ̃*
 1SG home be.PRS.1SG go.S_PERF.MSG
 ‘I have gone home.’

Sentences (27)-(28) are in progressive aspect. The schematic structure of (27) is shown in Figure 5.

27. *raʝoli ɖal cʰɛ kʰaŋɪ bʰaɪɪ ɲəbəri...*
 Rajuli lentils be.PST.3FSG eat.PROG.FSG yesterday when...
 ‘Rajuli was eating lentils yesterday, when....’
28. *ram sita-tɛ̃ sʝo cʰɔ̃ deŋv*
 Ram Sita- apple be.PST.MSG give.PROG.MSG
 ACC
 ‘Ram was giving Sita an apple.’

In the progressive aspect, in constructions where *v* is projected, *V* head-moves to *v* via Pair-Merge head movement since the *v* head has *V* features. The *v*, which is now (*V+v*), then head-moves to *Prog* via Set-Merge head movement and attaches to the newly formed intermediate projection *Prog*’.

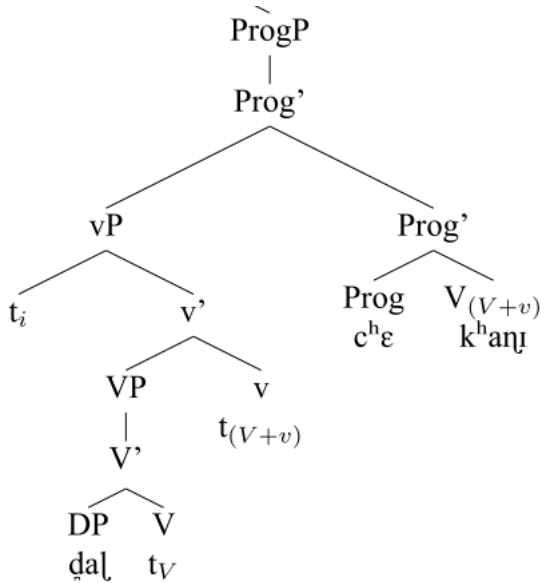


Figure 5

The crucial difference between the habitual and perfective constructions as we saw above, and progressive constructions is this head movement to Prog, that happens through Set-Merge instead of Pair-Merge in the former aspect set. As a result of this head-movement, the Prog head which contains the auxiliary remains separate from the newly moved V head that contains the main verb.

In these constructions, the moved V head lies linearly to the right of the original aspect head.^{viii} The verb and the auxiliary behave in some respects like separate heads, and in cases like verb-raising in interrogatives they behave as two independent heads. For instance, in (29) below, the aspect head [(V+v)+Prog] consists of both the verb and the auxiliary, but only the auxiliary raises while the moved V+v head remains in the same position.

29. *kɪɛ c^hɔ ram səʀʊlɪ- cɪʈʈ^hr bheɲɔ*
tē

whz be.PST.MSG Ram Saruli- letter send.PROG.MSG
 ACC

‘Why was Ram sending a letter to Saruli?’

In the stative perfective aspect, the structure and head movement of V is essentially the same as in the case of the progressive. (30)

and (31) below are examples of sentences in stative perfective aspect. The schematic structure of (30) is shown in Figure 6 below.

30. *rajoli-n ḡal c^hε k^hajī biʔlɪ ɟəbəri...*
 Rajuli- lentils be.PST.3FSG eat.S_PERF.FSG yesterday when...
 ERG
- ‘Rajuli had eaten the lentils yesterday, when...’
31. *ram-ən səruli-tē sjo c^hɔ dɪnjū*
 Ram- Saruli- apple be. give.
 ERG ACC PST.MSG S _PERF.MSG
- ‘Ram had given Saruli an apple.’

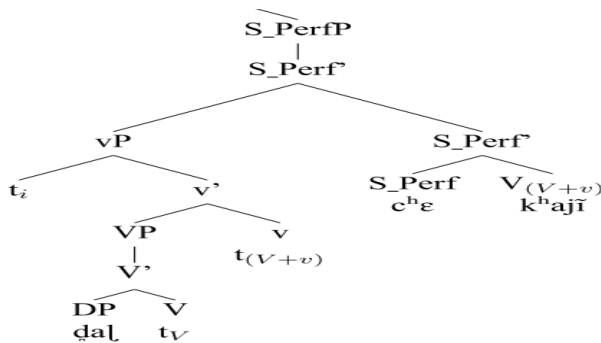


Figure 6

Conclusion

In this study, the researcher has investigated some properties of the word order of Garhwali, with a focus on the position and order of the participial verb and the auxiliary in periphrastic verbs. The researcher has analyzed some special properties of the verb and the auxiliary such as the occurrence of both V-Aux and Aux-V orders and an aspect-split in their occurrence which do not conform to the established general patterns in IA languages in particular, and SOV languages in general.

The presence of some properties that deviate from the IA norm raises interesting questions regarding the possibility of a prolonged contact situation and a resultant change in progress. Alternatively, it could be the case that Garhwali itself has undergone syntactic restructuring due to rampant bilingualism. Any solid conclusion on these issues will require an in-depth study of the language diachronically as well.

The Aux-V order in the progressive and the stative perfective aspects in declarative sentences point to the possibility of these arising due to contact with Kashmiri, which is a V2 language,

either directly or through some West Pahari languages over a prolonged time. It could be the case that either syntactic restructuring is in progress in Garhwali, or rampant bilingualism in Hindi is in the process of reversing the starker change in the word order of Garhwali that occurred historically, probably due to contact. More comparative research in the two languages as also the intervening Western Pahari languages is needed to arrive at a firm conclusion in this regard.

Since the focus of this study is to analyze the order of the verbal participle and the auxiliary in Garhwali synchronic speech and account for its syntactic structure, the author has argued that to account for the aspect-based variation between V-Aux and Aux-V orders, two types of head movement, viz. Set-Merge head movement and Pair-Merge head movement must be allowed.

Endnotes

- ⁱ Except Hook (2011, n.d.), no other available works have even mentioned the occurrence of Aux-V order in Garhwali
- ⁱⁱ The perfective aspect in Garhwali is divided into two aspectual forms: the *simple perfective* and the *stative perfective*, glossed PERF and S_PERF respectively in this paper. In terms of their semantics, the simple perfective and the stative perfective differ in terms of stativity and the consequence of (in-)completeness of the action. This differentiation is true in both directions of the present tense i.e. both in the past and in the future tenses. The simple perfective denotes completeness of an action or an event at a time away from the present and the action doesn't continue till the time of reference. On the contrary, the stative perfective denotes that the action was completed at a time which is recent, and the agent or the patient is still in the state of having that action completed, or the consequence of the completed action is still valid at the time of reference.
- ⁱⁱⁱ Garhwali also exhibits an aspect-based split in ergativity, like most IA languages, but the two splits are not parallel. The simple perfective and stative perfective clauses show ergative alignment while the non-perfective aspects viz. progressive and habitual show nominative alignment. Thus, ergativity is only attested when the verb in the relevant clause is in perfective aspect while in the progressive and habitual aspects, the subject is marked with a nominative case.
- ^{iv} Funakoshi (2012:547) clarifies that this hypothesis is “theoretically tenable under a certain model of syntax in which the bare phrase structure theory, the derivational approach to syntactic relations, and Featural Cyclicity are adopted”. Additionally, he provides crosslinguistic empirical evidence to support this, and shows that the difference between some languages allowing headless XP-movement (e.g., Hebrew) while others not allowing it (e.g., English) can be explained by adopting this approach to account for their structure. His analysis is that XP-movement/ellipsis can only occur when a head moves to the next higher head via only substitution (p. 548).

- v If the clause involves a vP, then the head of VP will end up Pair-Merging with it, and the resulting [V+v] will be what raises to the head of the aspect projection; if there is no vP, then the head of V will itself directly raise to the head of the aspect projection.
- vi The habitual aspect in Garhwali pragmatically denotes a continuous action and hence equivalent to the progressive aspect in English. The finer semantic distinction between habitual and progressive aspects needs further study.
- vii This V-Aux fusion occurs in both perfective and habitual aspects in the present tense only. In other tenses, the auxiliary is obligatory in its full form since it marks the tense.
- viii In this analysis, I assume that Set-Merged heads in Garhwali linearize in such a way that the raised v/V lie to the right in the linearization. The exact reason for this needs to be probed further.

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