

Applicative constructions and suppletive verbs in Hiaki

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Abstract

Several intransitive verbs of motion or posture in Hiaki exhibit verb-stem suppletion conditioned by the number of the subject. There are also a few suppletive transitive verbs conditioned by the number of the object. We argue in this paper that suppletion in these verb roots is triggered only by underlying objects, and that the intransitive members of this class of verbs are unaccusative. To show this, we exploit the properties of the Hiaki applicative morpheme, which is productive with any agentive verb, transitive or intransitive, but may not occur with verbs with the general properties of unaccusative verbs. We show that the intransitive suppletive verbs may not co-occur with the applicative/benefactive morpheme *-ria*, despite the fact that several of them are apparently semantically/pragmatically appropriate as potential benefactive actions.

Keywords: applicative, benefactive, transitivity, unaccusative

1 Suppletive verbs in Hiaki

Hiaki, like many Uto-Aztecan languages, has a significant class of highly frequent suppletive verbs, in which the suppletion is triggered by the number of one of the verb's arguments. (See e.g. Dedrick and Casad (1999) for a description of the Hiaki facts, and the Langacker (1977) for Uto-Aztecan generally. For a survey of similar phenomena cross-linguistically see Veselinova (2003).) With intransitive suppletive verbs, such as *weye* ~ *kaate* 'go by walking,' the suppletion-triggering argument is the subject of the verb:

- (1) a. *Aapo weye.*
3SG walk.SG
'He/she/it is walking.'
b. *Vempo kate.*
3PL walk.PL
'They are walking.'

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With transitive suppletive verbs like *mea* ~ *sua* ‘kill’, however, the suppletion-triggering argument is the object—the number of the subject makes no difference:

- (2) a. *Aapo uka koowi-ta mea-k.*
3SG the.SG pig-ACC.SG kill.SG-PRF
‘He killed the pig.’
b. *Aapo ume kowi-m sua-k.*
3SG the.PL pig-PL kill.PL-PRF
‘He killed the pigs.’

In this paper we will propose an analysis of this phenomenon in which the suppletion-triggering argument is always an underlying object, entailing an unaccusative analysis of the intransitive suppletive verbs (consistent with Guererro’s (2004) observation that these verbs are generally non-agentive). This approach is suggested by the interaction of the suppletive verbs with the Hiaki applicative *-ria*. The applicative morpheme is introduced in section 2, and a syntactic analysis of the applicative is outlined in section 3. In section 4, the facts concerning the interaction of the applicative and the suppletive verbs are presented, and in section 5, the conclusions about unaccusativity and the object-dependence of suppletion are presented. Conclusions are presented in section 6.

2 The applicative morpheme *-ria*

We will use the Hiaki applicative to probe the syntactic structure of these suppletive verbs; consequently in this section, we introduce this construction. Hiaki has a very productive applicative construction, which usually has a benefactive reading.¹ It corresponds to a ‘high’ applicative in the terminology of Pylkkänen (2002) since it can apply to intransitive unergative verbs as well as to transitive verbs.² The applicative is formed by suffixing *-ria* to the verb, and introduces a benefactee argument. The benefactee, which must be animate, is marked with accusative case and c-commands any other internal arguments. The applicative argument, and not the erstwhile direct object, becomes the subject under passivization and can bind an anaphoric object of the verb, as shown for Hiaki in Rude (1996).

- (3) a. *U’u maaso uusi-m yi’i-ria-k.*
the deer dancer children-PL dance-APPL-PRF
‘The deer dancer danced for the children.’
b. *Inepo Hose-ta pueta-ta eta-ria-k.*
1SG Jose-ACC door-ACC close-APPL-PRF
‘I closed the door for Jose.’

The applicative cannot, however, co-occur with unaccusative intransitives:

¹The general family of verbal affixes which introduce additional internal arguments standing in a benefactive, malefactive or possessive relation to the main event is usually termed ‘applicative’. In our experience, the Hiaki applicative morpheme usually introduces a beneficiary of the event, and hence could be called more specifically a ‘benefactive’; however, we have run across a few examples in which it receives a maleficiary interpretation and hence retain the more general term ‘applicative’

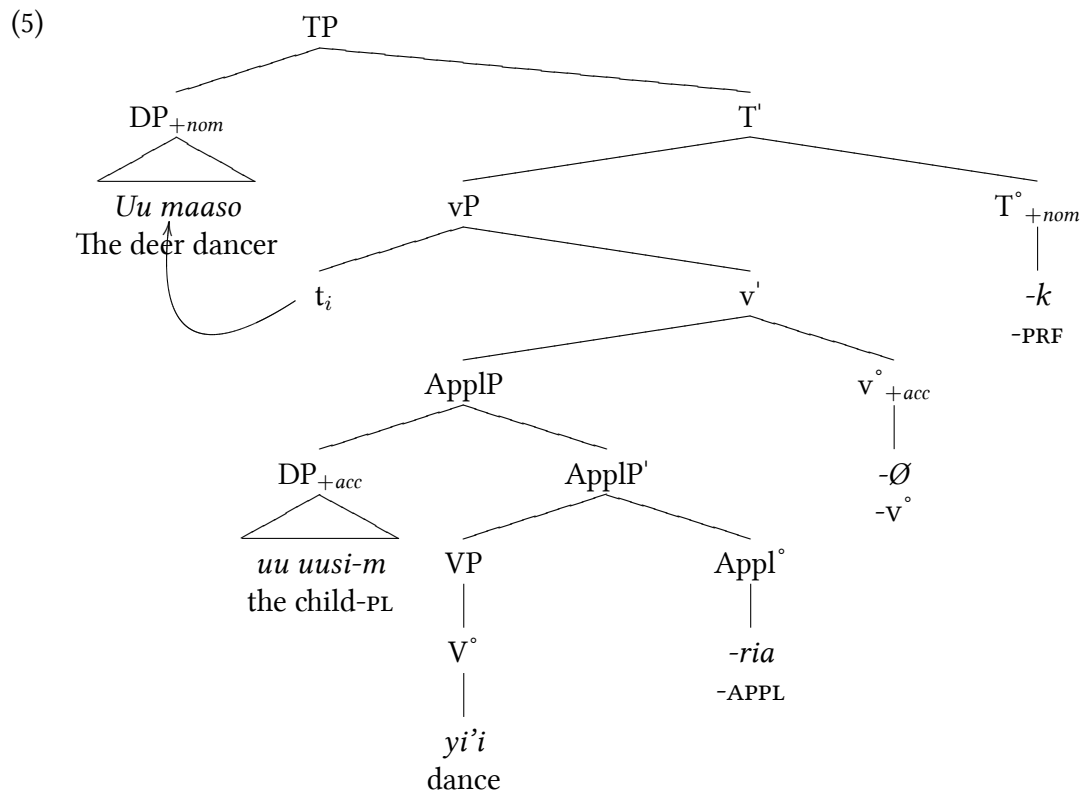
²Pylkkänen’s ‘high’ applicatives stand in contrast, for example, to the ‘low’ applicative of the Japanese ‘adversity passive’ or the English benefactive construction, which can only apply to transitive verbs.

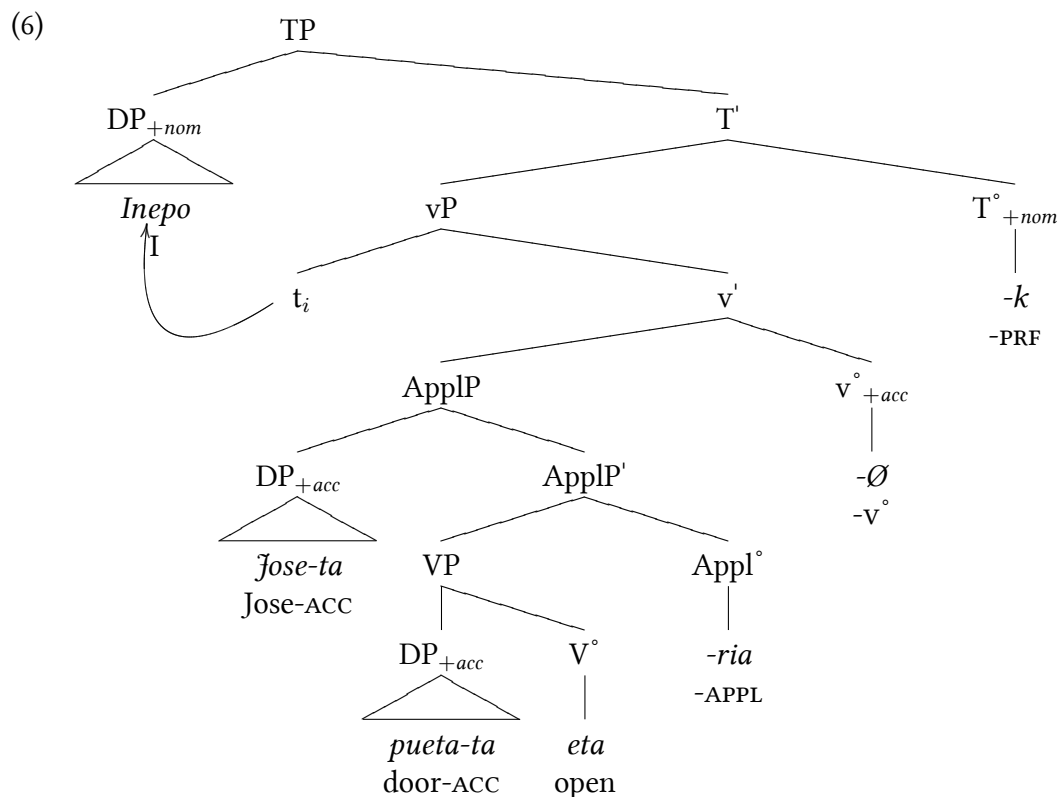
- (4) **Uu tasa Maria-ta hamte-ria-k.*
 the cup Maria-ACC break.INTR-APPL-PRF
 ‘The cup broke for/on Maria.’

In what follows, we propose to use the applicative morpheme as a diagnostic for the argument structure of the suppletive verbs. In the next section, we adopt a particular syntactic analysis of the applicative from previous literature, and explain the implications of this analysis for the argument structure of the verb to which the applicative attaches.

3 The syntactic analysis of applicatives

McGinnis (2004) and Pykkänen (2002) claim that the Applicative head is inserted between the v° which introduces the external argument and the V° which represents the core (‘root’) meaning of the verb and introduces the internal argument, if any. If we assign this analysis to the Hiaki applicative, we arrive at the structures for (3a, 3b) that are illustrated in (5) and (6) below:



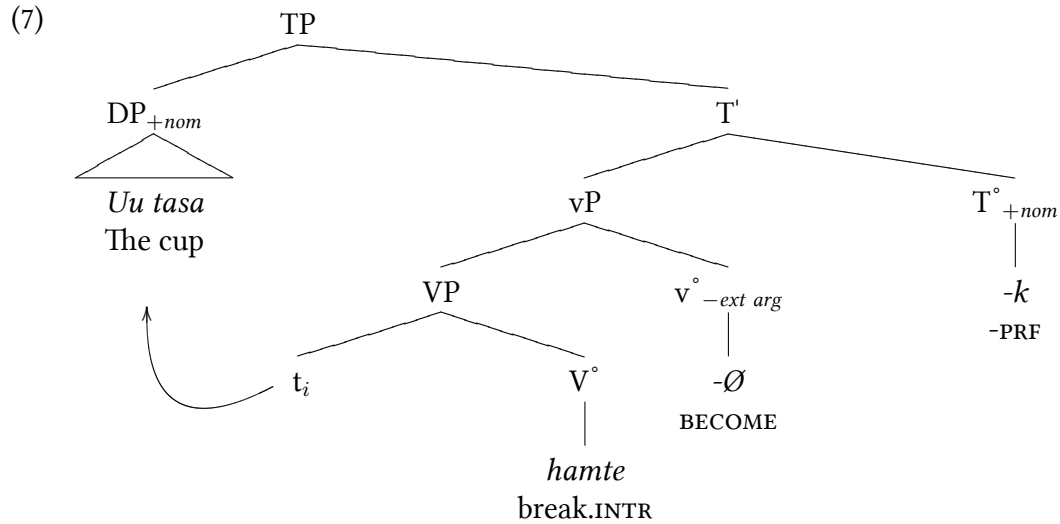


In these structures, the agentive subject is generated in the specifier position of the external-argument-introducing vP, and moves to Spec-TP to check its nominative case. The ApplP intervenes between the vP and the main VP, introducing the Benefactee argument. (As noted above, this argument c-commands the internal argument and is c-commanded by the external argument, as shown by the passive and binding patterns discussed in Rude (1996)). We assume that both the agentive v^o and the Appl^o may check accusative case (as they do in (5)) but need not (as in (6)). As noted above, in the passive of an applicative, the Benefactee argument moves to Spec-TP and receives nominative case; this shows that the case assigned to the Benefactee is structural, not inherent. Finally, we remain noncommittal as to whether the verb undergoes head-to-head movement to accumulate all its affixes up to and including T^o, or whether the verb and affixes simply merge postsyntactically under adjacency (as in, e.g., Bobaljik (1994)), which is possible given the linear order of heads that results from the fact that Hiaki is a verb-final language. Note that although we position *-k* under the T^o node, we remain undecided as to its final analysis as a Tense or Aspect morpheme, and retain the usual 'PRF' gloss. Like many perfectives cross-linguistically, it does convey past tense meaning in matrix clauses.

The v^o head in the above structures has roughly the semantics of 'do' (in (5)) or 'cause' (in (6)); it's equivalent to the external-argument introducing V head of Hale and Keyser (1993, 2002). It is crucially implicated in the agency of the entire construction, since it is responsible for introducing the agent argument and for the assignment of the agentive or causative theta-role.

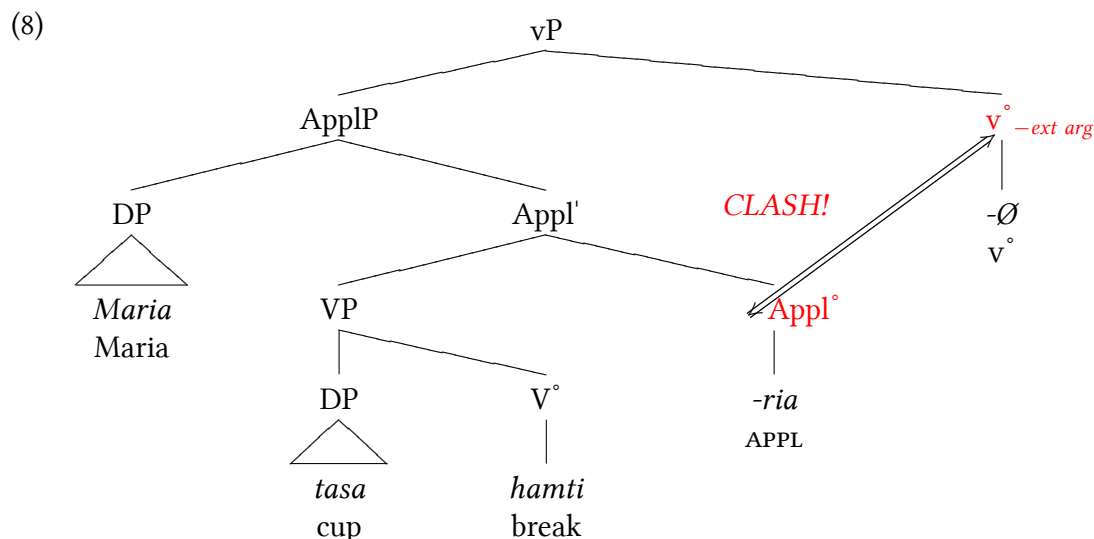
In unaccusative verbs, on the other hand, the v^o head does not introduce an external argument, since there is no agent. This v^o head contributes a meaning to the structure that could be understood as 'become' or 'happen' (for lexical semantic analyses concerning the decomposition of the meaning of unaccusative predicates, see Dowty (1979), Jackendoff (1990), Pustejovsky (1996), etc., and for the relationship between this decomposition and the vP, see Harley (1995, 2006), Marantz (1997), Travis (1991, 2000), among others). This v^o is incompatible with an intervening Applicative head, probably

because the semantics of the Applicative require it to compose with a causative v° , and it cannot compose with the unaccusative v° . The structure we assume for a grammatical (non-applicative) sentence containing the unaccusative verb in (2) above is illustrated in (7) below.³



In this approach, the problem with attaching a benefactive suffix to an unaccusative verb is that such verbs do not contain the external-argument-selecting v° head. Consequently, there is no way, semantically, to relate the action of an external argument to the Benefactee and the event denoted by the unaccusative verb, which we assume to be the semantic content of the applicative suffix, following Pylkkanen. The clash that would result is illustrated graphically in (8) below (omitting the root TP for simplicity).

³Interestingly, the analysis of verbs containing what we assume to be explicit causative v° morphology, such as the transitive version of the verb in the example above, *ham-ta*, 'break- v° ', or the verb meaning 'to show,' *vit-tua*, 'see- v° ' reveal a different pattern of interaction with the *-ria* applicative morphology than predicted by the analysis here. Namely, the prediction would be that the applicative morpheme should appear between the verb root and the v° morphology, as **ham-ria-ta* or **vit-ria-tua*. These are not possible, however; the applicative morphology must appear outside the v° morphology. The same issue arises with applicatives of productive morphological causatives. Pylkkanen assumes that the external-argument introducing head *Voice°* is distinct from the causative v° head which contributes only causative semantics, not any actual arguments to the structure. We could adopt a similar account to deal with these facts, but we will leave the issue unresolved for now, staying with the simpler structure. See Harley (2007) for discussion of this issue, and Harley (2006) for discussion of a related problem in English nominalizations.



Another potentially problematic aspect of this structure is the hierarchical relationship between the introduced Benefactee DP *Maria* and the single (internal) argument of the unaccusative verb—namely, the former c-commands the latter. This would predict that the Benefactee should become the nominative subject of the sentence by moving to Spec-TP, since a minimality violation would result if the verb's argument did so. The ungrammatical sentence in (4) does not follow this prediction, being modeled on the applicative formed from the intransitive unergative verb *ye'e* 'dance', in (3a). However, this minimality violation is not the cause of (4)'s ungrammaticality, since the sentence is not improved by reversing the order and case-marking of these arguments, as shown by the ungrammatical sentence in (9):

- (9) **Maria uka kuta-ta hamti-ria-k.*
 Maria the.ACC stick-ACC broke-APPL-PRF
 'The stick broke for Maria.'

We can conclude that the ill-formedness of combining an unaccusative verb and the benefactive suffix is semantic, not syntactic, at least if the structural analysis of applicatives proposed here has merit.

4 No applicative with suppletive verbs

As noted above, the applicative appears to be a very sensitive test for unergativity; it can only apply to intransitive verbs whose subjects are intentional and agentive; that is, whose subjects are base-generated in spec- vP . Interestingly, the applicative cannot combine with any of the suppletive intransitive verbs—even though their meaning seems to be fairly agentive and hence unergative, as indicated by the unergativity and agentivity of their closest English translations into English (e.g. *vuite* ~ *tenne* 'run'; *weye* ~ *kate* 'walk').

In (10a) below, we present an example with 'walk' where a Benefactee argument is introduced periphrastically into a clause, using the postposition *vechi'ivo* 'for'. It is important to note that adding a Benefactee argument periphrastically is usually considered to be semantically interchangeable with the applicative construction by our consultants. The activity described by the suppletive verb *weye* 'walk' is thus semantically compatible with a benefactive relationship. Nonetheless, it is ungrammatical to combine *weye* 'walk' with the applicative suffix *-ria*, as shown in (10b).

- (10) a. *Santos Maria-ta vetchi'ivo San Xavierle-u weye.*
 Santos Maria-ACC for San Xavier-to go
 'Santos is going/walking to San Xavier for Maria.' (e.g. carrying out a vow she had made for a pilgrimage)
- b. **Santos Maria-ta San Xavierle-u weye-ria.*
 Santos Maria-ACC San Xavier-to go-APPL
 'Santos is going/walking to San Xavier for Maria.'

This is a general property of all the suppletive intransitive verbs. In (11) we list other intransitive suppletive verbs which we have confirmed are incompatible with *-ria* affixation.

- (11)
- *vuite ~ tenne* 'run.sg ~ run.pl'
 - *siika ~ saka* 'go.sg ~ go.pl'
 - *weama ~ rehte* 'wander.sg ~ wander.pl'
 - *kivake ~ kiime* 'enter.sg ~ enter.pl'
 - *vo'e ~ to'e* 'lie.sg ~ lie.pl'

All of these are felicitous if the benefactee argument is periphrastically expressed using the *vetchi'ivo* construction, with only one exception: the verb *vo'e ~ to'e* 'lie'. Given the general ability of these verbs to co-occur with *vetchi'ivo*, we conclude that this resistance of *vo'e ~ to'e* to occur with *vetchi'ivo* is pragmatic, rather than grammatical. In English, too, it is hard to imagine an appropriate scenario where the expression *X lay for Y* would make sense.

The problem with *-ria*-affixation does not affect the class of suppletive verbs as a whole. It is completely acceptable to add an applicative affix to suppletive transitive verbs, such as *mea ~ sua* 'kill' as in (12):

- (12) *Santos Jose-ta koowi-ta/koowi-m mea/sua-ria-k.*
 Santos Jose-ACC pig-ACC/pig-PL kill.SG/kill.PL-APPL-PRF
 'Santos killed a pig/pigs for Jose.'

We can thus conclude that the problem with affixing *-ria* to the suppletive intransitive verbs is not attributable simply to their membership in the morphological class of suppletive verbs.

Why, then, is it impossible to affix *-ria* to the intransitive verbs listed in (11)? We claim that these verbs are syntactically unaccusative, and that this is the reason why they cannot combine with *-ria*. They are all verbs of body posture or motion, which exhibit unaccusative behavior in some Indo-European languages (see, e.g., Hoekstra and Mulder (1990) on Dutch), and crosslinguistically exhibit special morphological behavior that distinguishes them from non-motion intransitive verbs. Guerrero Valenzuela (2004), within the context of Role and Reference grammar, argues on semantic grounds that these intransitive Hiaki verbs all assign a single Undergoer thematic role, rather than an Agent thematic role. This translates naturally within a syntactic framework to an unaccusative analysis for these verbs, since unaccusative status is importantly connected to the lexical semantics of the verbs involved (Levin and Rappaport Hovav 1995).

If the intransitive suppletive verbs are unaccusative, then they cannot compose with *-ria* for the same reason that normal unaccusative verbs cannot. As illustrated in Figure 8 above, there is a semantic clash between the unaccusative v° and the semantics of the applicative head, therefore, no benefactive relation can be established using this suffix. Such a relation can be introduced periphrastically if the context is appropriate, as in the cases above where *vetchi'ivo* is acceptable (see,

e.g. (10a)), but no coercion is possible in the case of the benefactive suffix. Coercing the unaccusative v° to the appropriate type would involve forcing it to compose with an external argument, i.e., changing it to $v^\circ_{+ext\ arg}$, which is impossible given the verb roots' lexical specifications.

This problem does not exist for the transitive suppletive verbs, because those verbs are not unaccusative. Because they are unambiguously agentive, they have an external argument-selecting v° , therefore there is no semantic clash between them and *-ria*.

5 What determines suppletive agreement?

If all of the above is on the right track, then we can make a generalization: suppletive verbs, whether transitive or intransitive, agree in number with elements generated as their complement deep objects, regardless of their surface position. This is consistent with the Distributed Morphology notion that conditioning factors affecting the spell-out of root nodes must be local to the root (Arad 2003, Bobaljik 2000), that is, in a sisterhood relationship with the root. True agentive external arguments are never in such a local relationship with the root, and hence it would be surprising if they could trigger suppletion there.

However, another line of argumentation could call this conclusion into question. Martinez (2005) observes that Hiaki transitive and intransitive suppletive verbs behave differently when their suppletion-triggering argument consists of two coordinated, singular NPs. Transitive verbs with two singular, coordinated NPs in object position take the singular form of the verb:

- (13) *Maria yoem-ta into uusi-ta kecha-k / *ha'abwa-k.*
 Maria man-ACC and child-ACC wake.SG-PRF / *wake.PL-PRF
 'Maria woke the man and the child up.' (Martinez 2005)

However, intransitive verbs with singular coordinated NP arguments take the plural form of the verb:⁴

- (14) *Yooko, Juan into Peo tenni-vae / *vuite-vae.*
 Tomorrow, Juan and Pete run.PL-FUT / *run.SG-FUT
 'Juan and Pete will run tomorrow.' (Martinez 2005)

If these intransitive verbs are unaccusative, and suppletion is triggered at the base-generated position of these subjects, it is hard to understand why the intransitive and transitive verbs should differ in their behavior with coordinated DPs in this way. We leave this issue for future research.

6 Conclusions

In this paper, we have reported on the prohibition on adding the applicative suffix *-ria* to suppletive intransitive verbs in Hiaki, despite their pragmatic compatibility with benefactive situations. We suggest that this prohibition arises because these verbs have an unaccusative syntactic structure and propose a structural analysis of applicative constructions that is sensitive to this factor.

⁴Lilián Guerrero (p.c.) reports that not all Hiaki speakers agree concerning these judgments with coordinated NPs. We have not yet exhaustively attempted to discover what our consultants prefer in these cases, and will have to leave that for future investigation.

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