Applicative constructions and suppletive verbs in Hiaki*

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Abstract: Several intransitive verbs of bodily motion or position 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 appropriate as potential benefactive actions.

1. Suppletive verbs in Hiaki

Hiaki (like many Uto-Aztecan languages) has a significant class of highly frequent verbs that are suppletive, where the suppletion is triggered by the number of one of the verb's arguments. 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		b.	Vempo	kate
	3sg	**walk.sg**			**3pl**	**walk.pl**
	'He/she/it is walking.'				'They are walking.'	

With transitive suppleting 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	b.	Aapo	ume kowi-m	sua-k
	3sg	the.**sg** pig-**ACC.sg**	**kill.sg**-PRF		3sg	the.**pl** pig-**pl**	**kill.pl**-PRF
	'He killed the pig.'				'He killed the pigs.'		

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2. The applicative morpheme *-ria*

Hiaki also has a productive applicative construction, which usually has a benefactive reading. This is a 'high' applicative in the terminology of Pylkkanen (2002)—it can apply to intransitive unergative verbs as well as to transitive verbs (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). The applicative is formed by suffixing *-ria* to the verb, and introduces a benefactee argument. The benefactee is marked with accusative case, must be animate, and seems to c-command any other internal arguments: it becomes the subject under passivization and may bind an anaphoric object of the verb (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:

(4) *Uu tasa Maria-ta hamte-ria-k
The cup Maria-ACC break.intr-APPL-PRF
"The cup broke for/on Maria"

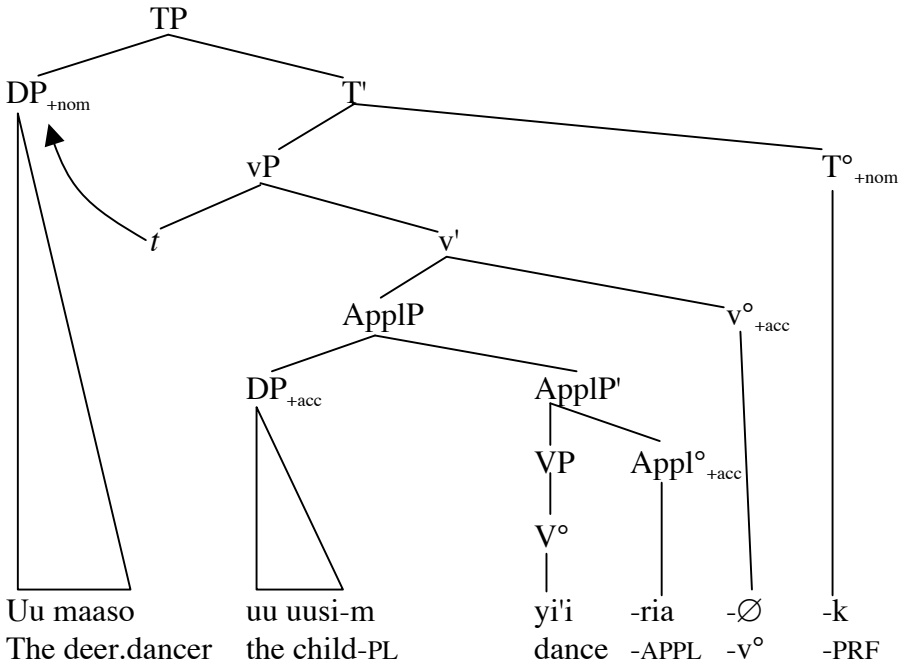
In what follows, we propose to use the applicative morpheme as a diagnostic for the argument structure of the suppletive verbs.

3. The syntactic analysis of applicatives

McGinnis (1998) and Pylkkanen (2002) claim that the Applicative head is inserted between the v° which introduces the external argument and the V° which represents the core ('root')

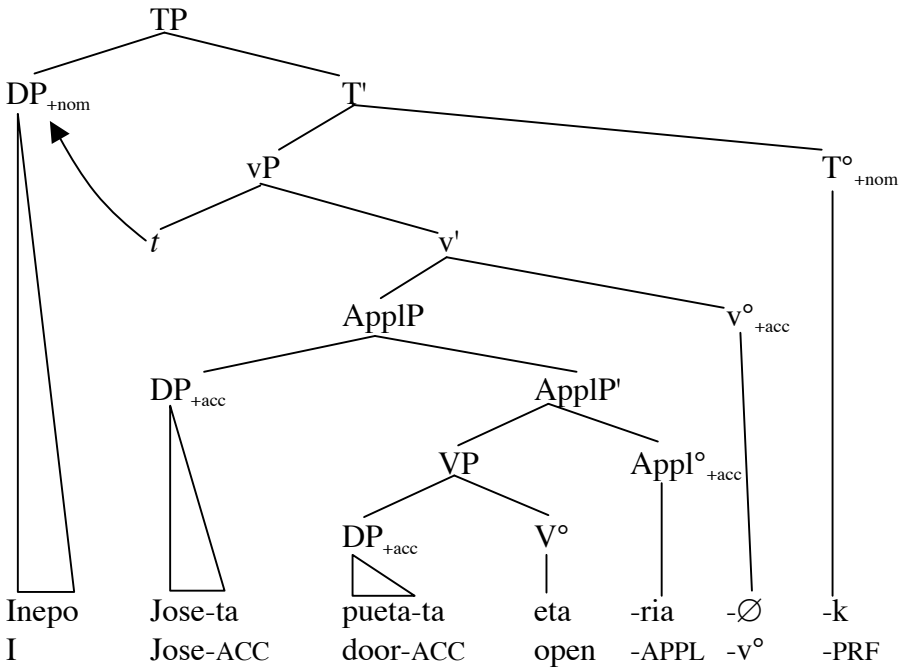
meaning of the verb and introduces the internal argument, if any. If we assign this analysis to the Hiaki applicative, we arrive at the structures for (3a,b) that are illustrated in (5) and (6) below:

(5)



"The deer dancer danced for the children."

(6)



"I opened the door for Jose."

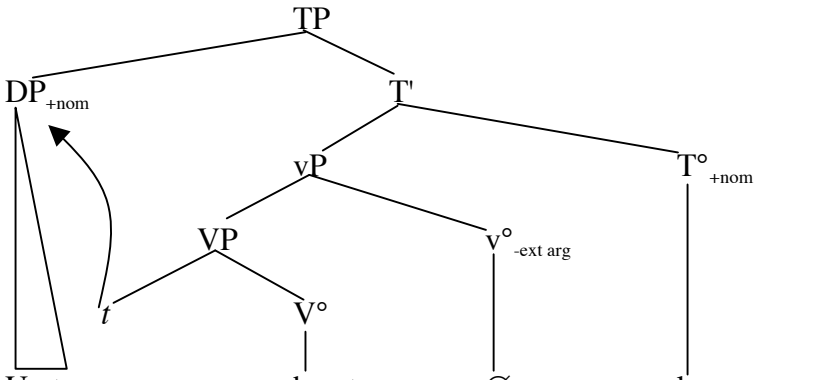
In these structures, the agentive subject is generated in the specifier position of the external-argument-introducing vP, and moves to Spec-TP to check its nominative case. The ApplP intervenes between the vP and the main VP, introducing the Benefactee argument. (As noted above, this argument c-commands the internal argument and is c-commanded by the external argument, as shown by the binding patterns discussed in Rude 1996). We assume that both the agentive v° and the Appl° may check accusative case (as they do in (6)) but need not (as in (5)). 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 agnostic as to whether the verb undergoes head-to-head movement to accumulate all its affixes up to and including T°, 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° node, we remain agnostic as to its final analysis as a Tense or Aspect morpheme, and retain the usual 'PRF' gloss. Like many perfectives, it does convey past tense meaning in matrix clauses.

The v° 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.

In unaccusative verbs, the v° head does not introduce an external argument, since there is no agent. This v° head contributes a meaning to the structure that could be understood as 'become' or 'happen'. This v° is incompatible with an intervening Applicative head, probably because the semantics of the Applicative require it to compose with a causative v°, and cannot

compose with the unaccusative v°. The structure we assume for a grammatical (non-applicative) sentence containing the unaccusative verb in (4) above is illustrated below:[1]

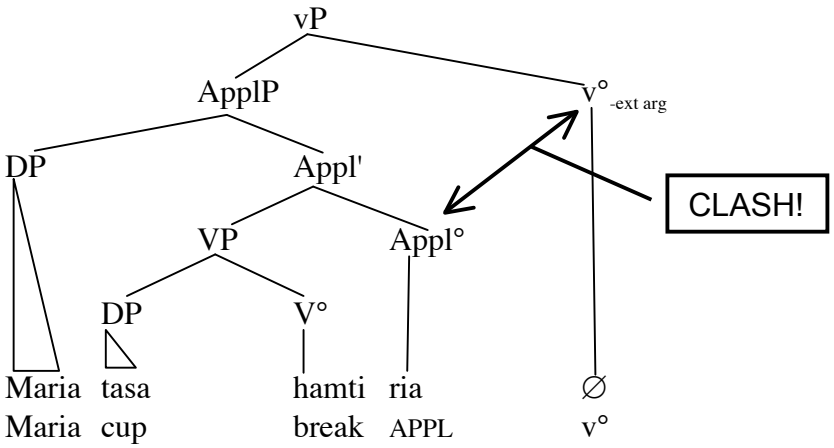
(7)



On this approach, the problem in attaching a benefactive suffix to an unaccusative verbs 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):

[1] Interestingly, 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 2006 for discussion of a related problem in English nominalizations.

(8)



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 (3)a. However, this is not the cause of its ungrammaticality, since the sentence is not improved by reversing the order 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. Interestingly, the applicative cannot combine with any of the suppletive intransitive verbs — even though their closest translations into English are often unergative (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'. (Adding a Benefactee argument periphrastically with *vechi'ivo* is usually considered 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. Below are the other intransitive suppletive verbs which we have confirmed are incompatible with *-ria* affixation.

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

All of them are fine with a periphrastically expressed Benefactee argument using a *vechi'ivo* construction, with only one exception: *vo'e~to'e*, 'lie', is apparently pragmatically incompatible with *vechi'ivo* as well, since it's hard to construct an appropriate scenario.

The problem with *-ria*-affixation is not a general problem with the morphological class of suppletive verbs as a whole. It's completely possible to add an applicative affix to a suppletive transitive verb, such as mea~sua:

(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."

Why, then, is it impossible to affix *-ria* to these intransitive verbs? We wish to claim that these verbs are syntactically unaccusative, and that this is the reason that they cannot combine with *-ria*. They are all verbs of bodily position or motion, which are well-known to exhibit unaccusative behavior in some Indo-European languages (see, e.g., Hoekstra and Mulder 1990 on Dutch), and commonly exhibit special morphological behavior cross-linguistically that distinguishes them from non-motion intransitive verbs.

If the intransitive suppletive verbs are unaccusative, then they cannot compose with *-ria* for the same reason that normal unaccusative verbs cannot, illustrated in (8) above: There is a semantic clash between the unaccusative v° and the applicative head's semantics, and no benefactive relation can be established using this suffix. Such a relation can be coerced, periphrastically, if the context is appropriate, as in the example in (10a) above with *vetchi'ivo*, but no coercion is possible in the case of the benefactive suffix—either the appropriate semantic types are present for it to compose with, or they are not. Coercing the unaccusative v° to the appropriate type would involve forcing it to compose with an external argument, i.e. changing it to v°+ext arg, with the resultant clash.

This problem does not arise for the transitive suppletive verbs, of course, since those verbs are not unaccusative. They, being unambiguously agentive, have an external argument-selecting v°, so 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, as it were, 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 (Bobaljik 2000, Arad 2003). True agentive external arguments are never in 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 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 (data from Martinez 2005):[2]

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

(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 short 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.

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