1 Introduction

- The morpheme -hqa in Kashaya (Pomoan) has been analyzed as a CAUSATIVE morpheme based on its use in (1) (Oswalt, 1961, 1977).

(1) a. mo -w
    run -ABS
    ‘He ran’

b. mo -hqa -w
    run -hqa -ABS
    ‘He made/let someone run’ (also, ‘He drove’)

- -hqa can productively attach to any verbal predicate (iteratively) to yield a causative/permissive reading.

- However, there are other circumstances where -hqa appears which are not transparently related to this causative use.

1. Psych-verbs:

- -hqa (plus a reflexive -ic’) may attach to any psychological predicate, often with no clear semantic distinction.
2. Subordination

- Certain clausal complements, take -hqa on the lower predicate if the matrix and subordinate subject are not co-referential. (Note that there is a -hqa on the matrix verb because da- is a psych-verb.)

3. “Accidental” readings

- With certain predicates, affixation of -hqa results in the subject being viewed as “accidentally” affecting the event.

Analysis

- -hqa is the realization of a (semantically vacuous) APPLICATIVE head merged above vP. It can license an EXTERNAL ARGUMENT (following Cuervo (2003); Rivero (2009); Kim (2011a,b, 2012)).
• A phonologically null Voice head is responsible for the Agent/Causer semantics (Kratzer, 1996; Kim, 2012).

• The purpose of this talk will be

  1. to show that the Agent/Causer semantics is not associated with -hqa
  2. to describe how analyzing -hqa as an Applicative accounts for its full distribution.

1.1 Roadmap

• background

• overview of psych-verbs

• diagnosing Voice through agreement

• diagnosing Voice through binding

• summary and interaction with logophority

• Raising-to-Object/ECM and causatives as applicative structures

• wrap-up

2 Background

• Northern, CA; extremely endangered.

• Predominantly verb-final

• Pro-drop

• Highly polysynthetic; the verb bears most of the information

• Two cases NOMINATIVE and OBJECTIVE. Objective covers everything that’s not nominative.

3 Psych-verbs

• All verbs in Kashaya which express a psychological state may occur in a “plain-form” or a “HQA-form” – the latter often with reflexive -ic’.

(5) a.  

| kuška | eʰtya-c’ | -e· | to |
| cat | be.afraid | -NVF | 1sg_obj |

‘I’m afraid of cats’

b.  

| kuška | eʰtya-c’ | -hqa | -ic’ | -e· | ?a |
| thing | be.afraid | APPL | REFL | -NVF | 1sg_nom |

‘I’m afraid of cats’
• An overt subject is always in the objective case with the plain-form, (5a).

• An overt subject is always in the nominative case with the HQA-form, (5b).

• I propose that -hqa in these contexts is merely a valency increaser, adding a core argument to the verb, but not altering the semantic interpretation.

• As such, the alternations in (5) are analogous to psych-verb alternations seen in other languages, such as Hindi (also Korean, Italian, K’iche’ (Mayan) among others).

(6) Hindi

   a. intransitive auxiliary, dative subject
      us-ko merī yādā yāyi
      3sg-DAT 1sg.GEN remembrance come.PERF
      ‘He remembered me’

   b. transitive auxiliary, ergative subject
      us-ne mujhe yādā kiyā
      3sg-ERG 1sg.DAT remembrance do.PERF
      ‘He remembered me’

• The phrases in (6) are reported to be semantically equivalent. The dative case is associated with an intransitive (unaccusative) auxiliary, while the ergative case is associated with a transitive auxiliary.

– A valency alternation co-varies with a case alternation

• While homophony of case forms masks the difference between dative and accusative cases in Kashaya, I assume that the subject of the plain-form is a dative-subject.3

• And I also assume that the structural difference between the choice of auxiliary/-hqa is tied to the case-marking: vP-internal arguments are dative, and vP-external arguments are “canonically” marked.

(7) a. plain-form

\[
\begin{array}{c}
\text{vP} \\
\text{DP}_{\text{dative}} \quad \text{v'} \\
\quad \quad \quad \text{VP} \\
\quad \quad \quad \quad \quad \quad \quad \quad \text{v}
\end{array}
\]

2 Thanks to Anoop Mahajan for this data

3 Although nothing crucial depends on this assumption.
b. **HQA-form**

```
ApplP
  DP_{nominative}  Appl'
    νP  Appl
      vP  hqa
      VP

...```

- That said, the HQA-form is sometimes associated with a slightly different meaning.

<table>
<thead>
<tr>
<th>plain-form</th>
<th>HQA-form</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>duʾya-qad-</code></td>
<td><code>duʾya-qad+hqa</code></td>
</tr>
<tr>
<td><code>da-</code></td>
<td><code>da+hqa</code></td>
</tr>
<tr>
<td><code>šuʾu-m-</code></td>
<td><code>šuʾu-m+hqa</code></td>
</tr>
<tr>
<td><code>muhkʰun-</code></td>
<td><code>muhkʰun+hqa</code></td>
</tr>
<tr>
<td><code>remeber</code></td>
<td><code>think about</code> (or <code>remember</code>)</td>
</tr>
<tr>
<td><code>want</code></td>
<td><code>like</code> (or <code>want</code>)</td>
</tr>
<tr>
<td><code>forget</code></td>
<td><code>leave behind (intentionally)</code> (or <code>forget</code>)</td>
</tr>
<tr>
<td><code>be embarrassed</code></td>
<td><code>be antisocial</code> (or <code>be embarrassed</code>)</td>
</tr>
</tbody>
</table>

- I’m calling this meaning the **AGENTIVE-READING**, since it entails that the subject is acting more agentively, or is more in control of the action. That is, there is an Agent theta-role.

  - Because of the correlation between the agentive-reading and the presence of `-hqa`, we might conclude that `-hqa` is in fact licensing this Agent-role, as we would expect from a causative morpheme.

- While the HQA-form often implies this reading, it is not guaranteed.

  - That is, the HQA-form can vary between the agentive and non-agentive reading.

(8) *Conrad kafé*- *da-* `hqa` `ic` `∅`  
*C coffee want `APPL` `REFL` `ABS*  
  a. ‘Conrad wants coffee’  
  b. ‘Conrad likes coffee’

- I argue that the difference lies in the availability of a phonologically null Voice head merged above Appl.
(9) a. **non-agentive-reading**

```
ApplP
  
  DP   Appl'

  vP    Appl

  VP    hqa

...```

b. **agentive-reading**

```
VoiceP
  
  DP   Voice'

  ApplP   Voice

  ??    Appl'

  vP    Appl

  VP    hqa

...```

- Something needs to be said about what Appl is introducing in this structure.
  - The purpose here is to disassociate the Agent/Causer semantics from the -hqa.

- Thus, there are three distinct structures for psych-verbs, and the difficulty comes in teasing apart the three distinct positions available for the subject.

<table>
<thead>
<tr>
<th></th>
<th>subject case</th>
<th>agentive-reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>vP</td>
<td>objective</td>
</tr>
<tr>
<td>2.</td>
<td>HQA[vP]</td>
<td>nominative</td>
</tr>
<tr>
<td>3.</td>
<td>Voice[HQA[vP]</td>
<td>nominative</td>
</tr>
</tbody>
</table>

Table 1

- In the next two sections, I will concentrate on showing the difference between the latter two structures.
– Crucially, I will show that the Agentive/Causer theta-role is not tied to -hqa

• Following that, I’ll propose a tentative distinction between the first two structures.
• Lastly, I’ll show how treating -hqa as an Applicative may account for the other occurrences.

3.1 Diagnosing Voice through agreement

• PLURAL AGENT AGREEMENT: The number of an Agent subject is reflected through agreement on the verb (Oswalt, 1961, p.154).

  – Plural Agent Agreement
  Change all /d/s starting from the end of the word up to and including a final /d/ in the root into /c'/.

• Unless there’s a /d/ in the verb, the Plural Agent has no overt reflex. But we can ensure a /d/ by adding a durative suffix.

(10) a. Non-agentive subject
    katō-te mo -ht -ad -ā
    marble run -PLMV -DUR -FACT
    ‘The marbles are rolling’ (Oswalt, 1961, p. 154)

b. Agentive subject
    mo -ht -ac’ -ā
    run -PLMV -DUR,PLAGT -FACT
    ‘They are running’ (Oswalt, 1961, p. 154)

• Under the assumption that Agents/Causers are merged in VoiceP (and other theta-roles aren’t) Plural Agent agreement can only obtain if the subject has been merged in VoiceP.

Prediction

1. the plain-form should never mark Plural Agent
2. the HQA-form should variably mark Plural Agent
   Furthermore if Plural Agent morphology is present, only the agentive-reading of the verb should be available.

• The plain-form may never mark Plural Agent.

(11) plain-form

a. chiya-c’ -id -e· yal
   be.afraid -DUR -NFV 1plObj
   ‘We are afraid’

b. *chiya-c’ -wac’ -e· yal
   be.afraid -DUR,PLAGT -NFV 1plobj
   Intended: ‘We are afraid’

---

4 This is a slight simplification. See Buckley (1994, p. 140-) for in-depth discussion.
• The HQA-form may variably mark Plural Agent.

(12) **HQA-form**

a. \( \text{ya} \ q'\o?o \ \ell \ \text{du}=?\text{ya-qad-hqa} \ -\text{med-u} \)
   \(1\text{pl} \_\text{nom} \ \text{DET_obj} \ \text{remember} \ -\text{APPL} \ -\text{DUR} \ -\text{ABS} \)
   ‘We are remembering the song’\(^5\)

b. \( \text{ya} \ q'\o?o \ \ell \ \text{du}=?\text{ya-qad-hqa} \ -\text{mec'} \ -\emptyset \)
   \(1\text{pl} \_\text{nom} \ \text{DET_obj} \ \text{remember} \ -\text{APPL} \ -\text{DUR}, \text{PLAGT} \ -\text{ABS} \)
   a. ‘We are thinking about the song’
   b. ‘We are remembering the song’

• With plural agent morphology on the verb, only the agentive-reading is available.\(^6\)

• The semantic variation seen in the HQA-form has a structural basis, which is overtly manifested in agreement morphology.
  – And crucially, this variation is not tied to the presence or absence of -\text{hqa}.

### 3.2 Diagnosing Voice through binding

• Kashaya has a set of logophoric pronouns, which display classic anti-locality effects in that they cannot be bound within some “minimal” domain.

• Locally bound anaphora are marked with the suffix -\text{ic’}.

(13) a. \( \text{John c}^{\text{h}0} \text{q} -\text{ic’} -\text{bi} -\text{w} \)
   John shoot -\text{REFL} -\text{INFER} -\text{ABS}
   ‘John shot himself’

b. *\( \text{John tito c}^{\text{h}0} \text{q} -\text{bi} -\text{w} \)
   Intended: ‘John shot himself’

• Binding a logophor under a psych-verb is acceptable, but the only interpretation available is the agentive-reading.

(14) a. \( \text{John tito du}=?\text{ya-qad-hqa} -\text{w} \)
   John \underline{\text{LOG}} \text{remember} -\text{APPL} -\text{ABS}
   a. ‘John is thinking about himself’
   b. ‘John remembers himself’

b. \( \text{John du}=?\text{ya-qad-hqa} -\text{ic’} -\text{\text{\text{\text{a}}}a} \)
   John \underline{\text{remember}} -\text{APPL} -\text{REFL} -\text{FACT}
   a. ‘John remembered himself’
   b. ‘John is thinking about himself’\(^7\)

\(^5\)Unfortunately, I do not know whether this phrase can mean “We are thinking about the song”, although I predict that it cannot.

\(^6\)I remain agnostic about the mechanism for agreement.

\(^7\)Both forms are fine here, presumably because the reflexive anaphor can be bound from either position. Note as well that the surface form of hqa+ic’ with the reflexive reading [qayic‘] is different that what we normally see with the HQA-form, [qac‘]. I have no explanation for this.
• This dichotomy is understandable if we suppose that merging an argument in VoiceP above ApplP is satisfactorily non-local for the purposes of binding.
  
  – We can perhaps insert a phase-boundary between Appl and Voice.
  – Or we can rely on some other Minimality concern. (I can elaborate on this later.)

• Either way, the difference between binding domains and agentive-reading is not tied to the presence or absence of -hqa.

3.3 Summary

• Both the agreement and binding diagnostics show that the agentive-reading is dependent on the availability of a null Voice, not -hqa.\(^8\)

<table>
<thead>
<tr>
<th>subject case</th>
<th>agentive-reading?</th>
<th>Plural Agent agreement?</th>
<th>binds a logophor?</th>
</tr>
</thead>
<tbody>
<tr>
<td>HQA-form</td>
<td>nominative</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Voice + HQA-form</td>
<td>nominative</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

Table 2

• Having established the distinction between Voice and -hqa, I will briefly address why I think psych-verbs have this alternation.
  
  – Q: If -hqa isn’t doing anything, what’s the difference between the plain-form and the HQA-form without Voice?
  – A: Logophoricity

• There is a person restriction on psych-verbs:
  
  – 3\(^{rd}\) person subjects require the HQA-form.

(15) a. Beatrice ?ama- q\(^h\)a?adid -hqa -w
   B thing dream -APPL -ABS
   ‘Beatrice dreamed about something’

b. *Beatrice -to  ?ama- q\(^h\)a?adid -u
   B -OBJ thing dream -ABS
   Intended: ‘Beatrice dreamed about something’

• However, this restriction is lifted in all contexts in which logophoric pronouns are licensed.
  
  – h\(^\text{š}i\text{yic}\)’ is a verb meaning “to say”. It requires its (indirect discourse) complement to be same-subject and always allows a logophoric pronoun.

\(^8\)See Appendix 1 for more evidence of a null Voice morpheme.
(16) *Gene [ tito kumiʔdaʔ tū-ʔše qʰaʔadi-ʔu ] hšiyic’ -∅
  G LOG always candy dream -ABS say_log -ABS
  ‘Gene says that he always dreams about candy’

  • I take this as evidence that -hqa is tied to the inherent logophoricity associated with psych-verbs.
    – They require knowledge about the mental state of the experiencer subject.
  • Deal and O’Connor (2010), in analyzing Northern Pomo’s case-marking patterns (which are nearly identical to those here, minus the causative suffix), propose that accusative (=objective) case on the subject-experiencer is dependent on the perspective from which the context is being evaluated.
    – An objective-subject case can be used if the subject and the “judge” of the context are the same.
  • So -hqa in these structures is required for “perspective shifting” reasons.
  • In any event, having established that -hqa is not associated with the Agentive semantics, I will address in the next sections the implications of treating it as an Applicative head.

4 Raising-to-Object/ECM

  • It has been argued that -hqa functions as a “switch-reference” marker in certain contexts (Oswalt, 1977)
    – complement of da-, “want”
    – complement to the optative suffix -iš, “I hope”
    – Purpose clauses, “in order to . . .”
  • All these contexts involve tenseless, irrealis predicates.
  • If the matrix subject and the embedded subject are different, -hqa is used on the lower predicate, and the lower subject appears in the objective form.

(17) a. *Pinocchio [ s’imun ?i -w ] da- -hqa -ic’ -∅
  P alive ASS -ABS want -APPL -REFL -ABS
  ‘Pinocchio wants to be alive’

  b. *hiʔbaya ʔem [ *Pinocchio -to s’imun ?i -hqa -w ] da- -hqa -ic’ -∅
  man DETnom P OBJ alive ASS -APPL -ABS want -APPL -REFL -ABS
  ‘The man wants Pinocchio to be alive’

  • Note first that the phrase in (17b) does not mean “The man wants to make/let Pinocchio be alive”.  
  • Secondly, the embedded predicate is non-eventive. The predicate s’imun ?iw means “to be alive”, not “to come alive”.  

9 Although the two phrases are actually homophonous. This is because the causative form of the lower verb would have a subject which is co-referential with the matrix subject.
10 The inchoative “come alive” is expressed with the derived verbal form s’imunam-.
– See appendix 4 for more evidence that -hqa does not come with an event.

• Lastly, the objective case on the lower subject is generally indicative of an ECM or Raising-to-Object (RtoO) construction, where the lower subject is an argument of both the embedded and the matrix predicate.

– An unembedded subject of s’imun ?îw would be nominative.

• I analyze these structures as basically Low Applicatives, where the objectively case-marked lower subject is merged in the Applicative phrase.

(18) The man wants Pinocchio to be alive

• As an applicative argument, “Pinocchio” relates to both the lower and higher predicate.

• This use of -hqa is restricted to tenseless, irrealis complements, because Appl is merged above the vP but below any tense projection.

– Predictions:
  1. we should never see any “higher” morphology (e.g., evidentials, tense, “true” switch-reference, etc) on these complements.
     * this prediction holds
  2. agreement and binding diagnostics from earlier should obtain as well.
     * this holds at least for the binding
     * I have no negative evidence for the agreement. (Although there are additional complications here as well.)

5 True causatives

• This analysis is quite similar to that proposed in Ippolito (2000) for Romance causatives. The causee is merged in spec-ApplP.\(^{11}\)

\(^{11}\)I thank an anonymous reviewer for bringing this analysis to my attention.
- See appendix 2 for evidence that the causee is not merged in VoiceP

(19) **Causative structure** (adapted from Ippolito (2000))

\[
\text{VP} \quad \text{Cause} \quad \text{ApplP} \quad \text{CAUSEE} \quad \text{Appl'} \quad \text{Appl} \quad \text{VP} \\
\ldots
\]

- The applicative analysis of causatives can thus apply RtoO/ECM structures.

6 **Wrap up**

- I have argued that -hqa should be treated as instantiating an Applicative head merged externally to the verb phrase.
  - cross-linguistic data for psych-verbs involving valency increases correlated with case alternations.
  - agreement and binding diagnostics divorce the agentive semantics from -hqa
  - RtoO/ECM are essentially Low Applicatives, as are “true” causatives.

- What remains unexplained is the interaction of this applicative with the logophorocity inherent to psych-verbs.

Thank you.
References


Appendices

Appendix 1: Null Voice

- Kashaya is a well-known Fluid-S (Dixon, 1994) or Active-Stative (Mithun, 1991) language.
- Case marking reflects the level of control/agentivity that the subject has over the action of the verb.

(20) a. John (mahtaqan) c’e lic’ -bi -w
   J (on.purpose) fall -INFER -ABS
   ‘John fell (on purpose)’

b. John -to (?mahtaqan) c’e lic’ -bi -w
   J -OBJ (on.purpose) fall -INFER -ABS
   ‘John fell (??accidentally on purpose)’

- The nominative subject in (20a) is compatible an adverbial modifier “on purpose”, while the objective subject in (20b) is not.
- This falls out from merging the agentive subject in VoiceP, an external projection.
- In contrast, the subject in (20b) is merged internally. Adverbial modification is unavailable.

Appendix 2: causees are not in VoiceP

- We can apply the same agreement and binding diagnostics to show that the causee in a causative construction is not merged in VoiceP.
  - Plural Agent agreement should not be able to obtain with a causee, (21a)
  - A causee should not be able to bind a local logophor, (21b).12

(21) a. Plural Agent agreement

   Gene pʰala yal ma-kina ?ana- shahya mo -ad -wad -hqa -hqa -med -u
   G too us car very fast run -DIR -DISTR -APPL -APPL -DUR -ABS
   ‘Gene made us drive the cars too fast’

b. Binding

   Anita John-to tito šuʔu m-hqa -ic’ -hqa -w
   A J-OBJ LOG forget -APPL -REFL -APPL -ABS
   a. ‘Anita made John forget her’
   b. ‘Anita made John forget himself’

- Similar arguments have been put forth by Kim (2012) for the English have-causatives in (22).

(22) John had Mary pick up the book

---

12Although it may be able to bind a logophor even more embedded. I have not attempted to get this phrase.
Appendix 3: “Accidental”-readings

- The “accidental” use of -hqa, repeated in (23), applies to resultative predicates.

(23) a.  
John caška ḍel ʔahay wi pʰis’a- -bi -w  
   J dish DETobj stick POST break- INFER -ABS  
   ‘John broke the dish with a stick’ (intentionally)

b.  
John caška ḍel ʔahay wi pʰis’a- -hqa -bi -w  
   J dish DETobj stick POST break -hqa -INFER -ABS  
   ‘John broke the dish with a stick’ (accidentally, while swinging a stick around)

- This use if analogous to accidental-causatives studied in Cuervo (2003); Rivero (2009); Fernández-Soriano and Mendikoetxea (2013) a.o.

(24) Al tintorero se le quemaron los pantalones de Carolina  
    the tintorero dat CL.REF CL.DAT burned.PL the trousers of Carolina  
   a.  ‘The dry-cleaner ('accidentally) burned Carolina’s trousers’  
   (b. ‘The dry-cleaner had Carolina’s trousers burn on him’) (Cuervo, 2003, ex 74, p. 142)

- The reading in (24a) has been shown involve an applied argument high in the structure, which can be applied to resultative predicates to yield an accidental reading.

Appendix 4: non-eventive -hqa

- -hqa doesn’t come with a causation event.

- This is demonstrable through embedded contexts.

(25) a.  
   hayu ʔ -∅  
   dog ASS -ABS  
   ‘It is a dog’ (Oswalt, 1977, p. 51)

b.  
   hayu ʔi -hqa -iš  
   dog ASS -APPL -OPT  
   ‘I hope it is a dog’ (Oswalt, 1977, p. 51)

- Oswalt notes that this might be said if someone heard a rustling in the bushes, and s/he thinks it might be a dog or a bear.

- There is no event associated with the copular predicate here.