Máíhɨ̃ki classifiers and non-asserted information

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1 Introduction

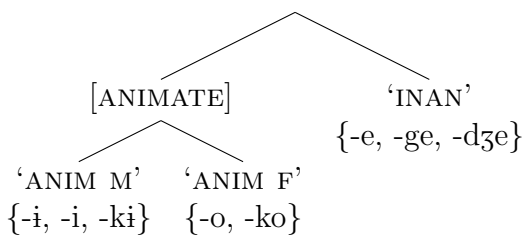
- The noun classification system of Máíhɨ̃ki, an endangered Western Tukanoan language of Peruvian Amazonia, is typical of its region (per the descriptions, for instance, in Payne (1986), Seifart (2005), and Gomez-Imbert (2007)) in that it exhibits classifiers that:
  - blur the boundary between derivation and inflection
  - appear in a broad range of morphosyntactic contexts
  - exhibit a semantic split between 'general' and 'specific' and
  - are involved in reference tracking
- This talk will focus on a particular Máíhɨ̃ki construction: **verb root + tensed 'relativizer' + classifier**, which may be analyzed in three different ways:
  1. as a nominalized verb
  2. as a relativized verb
  3. as the subordinate verb in a clause-chaining construction
- In this talk, my narrow goals will be:
  - to investigate the **verb root + tensed 'relativizer' + classifier** in detail to determine the extent to which there is evidence for each of the three potential analyses;
  - to argue that this construction serves to background information, and that various analyses may be united under the pragmatic umbrella of non-assertion.
- My broader goals will be to speculate about the relationship between classification and non-assertion, and to suggest that the semantic properties of classifiers (bleachedness plus specificity) make them ideal candidates for reference tracking and presupposition.
- **Outline**
  - In §2, I provide background on the Máíhɨ̃ki system of noun classification.
  - In §3, I illustrate the construction in question and provide evidence for three structural analyses.
  - In §4, I'll argue that Máíhɨ̃ki classifiers appear in the context of non-asserted information.
  - I will conclude in §5 by speculating about classifiers' affinity for non-assertion.

2 Background on Classification in Máíhɨ̃ki

- Doris Payne's (1986) description of noun classification in Yagua brought to light the need for data from Amazonian languages by pointing out the ways in which Yagua challenges Allan's (1977) typology of classification.
- Since then, a surge in descriptions of Amazonian noun classification systems (e.g. those found in Barnes (1990), Derbyshire & Payne (1990), Aikhenvald (2003), Seifart (2005), Gomez-Imbert (2007), Payne (2007), Seifart (2007), Chacon (2012), Silva (2012), Stenzel (2013), Bruil (2014), Farmer (2015), Wojtylak (2017) among others) has helped to paint a clearer picture of the features common to this linguistic area, in particular, that its classifiers:
  - may be both derivational and inflectional;
  - serve to unitize mass nouns;
  - fall along a spectrum from lexical to grammatical;
  - appear in a broad range of morphosyntactic contexts;
  - are involved in agreement and reference tracking; and
  - exhibit a semantic split between 'generic' and 'specific'.
- In this section, I will provide an overview of the classification system found in Máíhɨ̃ki, with particular reference to the general–specific split, and to the morphosyntactic environments in which classifiers appear.

2.1 The general–specific split

- The Máíhɨ̃ki system of noun classification seems bipartite in a way that other languages of the region (e.g. Yagua (Payne 1986), Miraña (Seifart 2005), Tatuyo (Gomez-Imbert 2007)) have been described: it exhibits a distinction between 'general' and 'specific' classifiers.
- **Specific** class markers make fine-grained distinctions between physico-cultural properties of entities; **general** class markers make coarser distinctions, typically in animacy, gender, and number.
- The 'general' system of noun classification in Máíhɨ̃ki is shown in the tree below:



- The 'specific' system of noun classification in Máíhɨ̃ki involves a large class of mostly shape-based suffixes.
- One way to conceive of this bipartite system is as having a morphosyntactic split between general and specific. General class is relevant for subject agreement with the predicate; specific class is relevant for agreement within the noun phrase.
- Seifart's description of Miraña, however, describes this as a pragmatic split:
  - Specific class markers may be used to 'highlight a particular property of a referent that is important in a given discourse situation' (Seifart, 2005: 320)—for instance, to recall, emphasize, or disambiguate a referent.
- As we will explore, what is meant by 'finite' is worthy of more investigation.

2.2 Classifier environments

- Classifiers in Máíhɨ̃ki can appear suffixed to:
  - **adjectival roots**, such as *hái-* 'big' in (1a)
  - certain **noun roots**, such as the mass noun *ókó* 'water' in (1b)
  - **numeral roots**, such as tèpè- 'two' in (1c)
  - **demonstrative roots**, such as the discourse demonstrative ɨ́tì in (1d)
  - **verb roots**, such as átʃú 'be hot' in (1e)
  - **'relativized' verb**s, such as tɑ́ɨ́sè 'that which fell' in (1f)

(1) a. hái**ràkà** míníhɛ̀ɛ̀hɨ̀tèà
hái -raka míní -hɛ̀ɛ̀ -hɨtèà
big -CL:liquid rise -2STATE.PLACT -3SG.PRES.DECL also
'The water level rose too' (lit.: 'the big water rose too')

b. ókó**ràkà** dʒétéɨ́mèhɔ́gɨ́
ókó -raka dʒété ɨ́me -hɔ́ -gɨ
water -CL:liquid break lie.down -PERF -3SG.PAST.DECL
'The water broke open and lay on the ground' (i.e., it began to rain) (iy6 246.1)

c. tèpè**tárà** tʃíábɨ́
tèpè -tara tʃíá -bɨ
two -CL:cylindrical buy -1PL.PAST.DECL
'We bought two bottles' (ovi 103.1)

d. hɨ́nòtà ɨ́tì**ràkà** ɨ́kúdʒítà
hɨ́nòtà ɨ́tì -raka ɨ́kú -dʒi -ta
just.now DISCOURSE.DEM -CL:liquid drink -3PL.PRES.DECL -INFO
'They're drinking the soup' (cf1 172.1)

e. átʃú**ràkà** kwàkòrè hájnùdɨ́òhõgó
átʃú -raka kwàkò -re hájnù dɨ́ò -hõ -go
be.hot -CL:liquid heat pour pour.liquid -SEQ -PERF -3SG.FEM.PAST.DECL
'She heated the water and poured it out [into the worm's hole]'

f. ɨ́tìŋì t͡ʃ́ɨ́sè**dàdì** háídʒìàrà néèhɔ́
ɨ́tì -ŋi tɑ́ɨ́ -se -dadi hái -dʒiara néè -hɔ́
discourse.dem -CL:plant fall -REL.PAST -CL:place big -CL:lake make -2STATE
'The place where the tree fell became the sea' (mbd 341.1)

- In what follows, I will be focusing on the type of construction in (1f)—**verb root** + **'relativizer'** + **classifier**.

3 The construction in question

- There is a paradigm of suffixes that have been glossed in previous descriptions of Máíhɨ̃ki (Farmer 2015) as tensed 'relativizers'.
- This paradigm, shown below, includes three tenses with lenis and fortis allomorphs.

	FORTIS	LENIS
PRESENT	-∅	-∅
PAST	-tʃi	-se
FUTURE	-ha	-hai

Table 1: Máíhɨ̃ki 'relativizers'

- Present, past, and future examples are shown below:

(2) máíkò hɨ̀̃kàkò, 'mɨ ɑ́ógàrà óímàkɨ, dʒì gɑ́hì**gàrà**?'
máí -ko hɨ̀̃kà -ko mɨ ɑ́ó -gara ói -ma
go.up -SS.SIM.FEM speak -3F.SUBJ.OVLP you food -CL:clump want -NEG
-kɨ dʒì gɑ́hì -gara
-3SG.MASC.Q my hold -CL:clump
'She went up and said, "You don't want this ball of food that I'm holding?"'

(3) hásù ĩ́ĩ́ hásó**tʃìbɨ̀** sáàkɨ̀ díòhṍ

hásù ĩ́ĩ́ hásó -tʃi -bɨ́ sáà -kɨ́ díò
shotgun he shoot -REL.PST -CL:thing take -3SG.MASC.OVLP put.in.water
-hṍ
-PERF

'He took the shotgun that he had shot and put it in the water' (aag 114.1)

(4) nɨ́òrè ɨ́bì dʒòù bàì**hábɨ̀** kwɑ́ɑ̀nɨ́kógɨ́

nɨ́ò -re ɨ́ -bɨ́ dʒou bàì -há -bɨ́ kwɑ́ɑ̀
wife -ACC PROX.DEM -CL:vessel canoe be -FUT.REL -CL:vessel pick.up
nɨ́kó -gɨ́
stand.up.TR -3SG.MASC.PAST.DECL

'He picked up his wife and stood her up on what would become the canoe' (cf1 180)

- Below, I will discuss potential analyses of these constructions as nominalizations, relativized verbs, and the subordinated verbs of temporal adverbial clauses.

3.1 Nominalization or Relative Clause?

- The construction could feasibly be analyzed as a nominalization or a relative clause.
- For many languages of the Americas, this distinction has been argued to be blurry or irrelevant (Shibatani 2009; Comrie & Thompson 1985).
- Indeed, in Máíhɨ̃ki, the construction in question may bear nominal morphology, such as the plural suffix *-ma*:

(5) úhá bɨ́íhɨ̀̃ dàìsè súùsègàrà**mà** tɨ̀̃gáràmà ɑ́kúdʒí ítìhùnà

úhá bɨ́í -hɨ̀̃ dàì -se súù -se -gara
song get.up -PL.SS.OVLP dance -REL.PST strain -REL.PST -CL:clump
-ma tɨ̀̃ɨ̀̃ -gara -ma ɑ́kú -dʒi ítìhùnà
-INAN.PL thick -CL:clump -INAN.PL drink -3PL.PRES.DECL they

'Those who got up and danced drank the masa de pihuayo verde' (lit.: 'the thick clumps that had been strained') (pvd 51.1)

- This construction can be also predicativized in the same way nouns are—via the copula suffixes *-hã̀* (plural/inanimate), *-agɨ́* (masculine animate), or *-ago* (feminine animate).

(6) ĩ́ĩ́ máírùrù bátʃìkɨ̀**agɨ̀**

ĩ́ĩ́ máírùrù bá -tʃi -kɨ́ -agɨ́
he upriver live -REL.PST -CL:MASC -COP.ANIM.MASC

'He lived upriver' (cmb 4.1)

- It may serve as the possessor or possessum in a possessive construction:

(7) húníhő́kò bàtʃíkò wèè tèà tánìhő́gɨ́

húní -hő́ -ko bà -tʃi -ko wèè tèà tánì -hő́
die.NI -2STATE -CL:FEM be.AUX.NI -REL -CL:FEM house also fall.NI -2STATE
-gɨ́
3SG.PST.DECL

'The house of the woman who had died fell too'

- It is often translated into Spanish as a nominalization.

(8) dʒì ā́ő́ kòkò**kò** nà gánàbɨ̀

dʒì ā́ő́ kòkò -ko nà gánà -bɨ̀
I food cook -CL:FEM then earn -1SG.PST.DECL

'I made money as a cook' (svc 204.1)
'Yo como **cocinera** he ganado'

- But these same constructions in Máíhɨ̃ki are undeniably clause-like in that they can describe complex, tensed events and can bear negation and aspectual marking as finite verbs would.

- The most common translation into Spanish is with a relative clause.

(9) dʒì dòìhúnà dʒíò néè**mà**sèhùnà kátò sánihɛ̀ɛ̀rè bàìdʒì ítìhùnà

dʒì dòì -huna dʒíò néè -ma -se -huna kátò sáni
my siblings -CL:group garden make -NEG -REL.PST -CL:group there go.NI
-hea -re bàì -dʒi ítìhùnà
-2STATE.PL -SEQ live -3PL.PRES.DECL they

'My siblings, who didn't want to make swiddens, went to live elsewhere' (bag 534.1)

(10) óó sɔ̀ɔ̃hàrù**ɲíà**sè hànà béóhɨ́

óó sɔ̀ɔ̃ hàrù -ɲia -se hànà béó -hɨ̃
plantain be.ripe sit -IMPF -REL.PST now not.exist -3SG.PRES.DECL

'The plantain (tree) that was sitting here ripe is now gone' (dos 79.1)

3.2 The construction in question as a clause-chaining device

- Previous descriptions of Máíhɨ̃ki have not explored the role of this construction in clause-chaining.

- Farmer (2015) and Michael (2011) claim that complex events in Máíhɨ̃ki are expressed via clause-chaining devices that encode switch reference and degree of temporal overlap:

- same-subject temporal overlap suffixes
- same-subject sequential suffixes
- different-subject temporal overlap suffixes
- different-subject sequential suffixes

- I will be concerned here with the same-subject suffixes, as clause-linking function of the construction in question bears most similarity to these.
- The same-subject temporal overlap suffixes, shown in the table below, indicate that the times of the events of the matrix and dependent clauses are at least partially overlapping.

MASC	-kɨ
FEM	-ko
PL	-hɨ̃

Table 2: Same-subject temporal overlap suffixes

(11) a. dáí**kɨ**, máká dáí**kɨ** ágáhɨ́

dáí- kɨ máká dáí -ktextbari ágá -hɨ̃
come -MASC.SS.SIM woods come -MASC.SS.SIM shout -3SG.MASC.PRES.DECL

'Coming out of the woods, he called out' (ttj 101.1)
'Viniendo del monte él llamaba'

b. ábɨ́**kɨ** tɨkàhɨ̃̀, 'ko, ko, ko'

ábɨ́ -kɨ tɨkà -hɨ̃ ko ko ko
bathe -MASC.SS.SIM hit.PLACT -3SG.MASC.PRES.DECL ONOM ONOM ONOM

'Bathing, he was hitting (the water) making it go, "ko, ko, ko"' (clp 227.1)
'Bañando estaba golpeando con el sonido "ko, ko, ko"'

(12) a. yábésàbì**kò** sáíkó

yábé sàbì -ko sáí -ko
hide.INTR crawl -FEM.SS.SIM go -3SG.FEM.PRES.DECL

'She went crawling, hiding' (muj 32.1)
'Escondiéndose y gateando se fue'

b. ɨ́sé**kò** ɑ́ɑ́mákó

ɨ́sé -ko ɑ́ɑ́ -má -ko
be.stingy -FEM.SS.SIM feed -NEG -3SG.FEM.PRES.DECL

'Being stingy with food, she didn't feed [them]' (hab 40.1)
'Mezquinaba comida y no les daba de comer'

(13) a. kíù**hɨ̀** sáídʒí

kíù -hɨ sáí -dʒi
clear.path.with.machete -PL.SS.SIM go -3PL.PRES.DECL

'They went clearing the path with machetes' (cm2 78.1)
'Se fueron macheteando'

b. ónó tóá**hɨ̃̀** ű́kúdʒí ítìhùnà

ónó tóá -hɨ̃ ű́kú -dʒi ítìhùnà
beverage grind -PL.SS.SIM drink -3.PL.PRES.DECL they

'Grinding the *masato*, they would drink' (pyj 9.1)
'Moliendo el masato, ellos tomaban'

- The same-subject sequential suffix, *-re*, indicates that the events occur in sequence.

(14) a. . . . násórè ɛ̋ɔ̋**rè** hɛ̋ɔ̋tɔ̋ɔ̀hɔ́bɨ́

násó -re ɛ̋ɔ̋ -re hɛ̋ɔ̋ tɔ̋ɔ̀ -hɔ́ -bɨ
woolly.monkey -ACC tie.up -SS.SEQ throw make.fall -2STATE -1SG.PAST.DECL

'. . . I tied up the woolly monkey and threw it down' (130.1)
'. . . he amarrado el choro y le he botado abajo'

b. sáà**rè** kwàkòmà!

sáà -re kwàkò -ma!
take -SS.SEQ cook -IMP

'Take it and cook it!' (iy6 437.1)
'¡Llévalo y cocínalo!'

- The **verb root + 'relativizer' + classifier** is also often translated either as an adverbial temporal clause or as a coordinate clause:

(15) kɑ̋ɑ̀ kámà dʒòòhɨ̃ ɲátàsèhùnà mámì bèòdʒì

kɑ̋ɑ̀ kámà dʒòò -hɨ ɲátà -se -huna mámì bèò
then thus do -SS.PL.OVLP wake.up -REL.PST -CL:group name give.name
-dʒi
-3PL.PRES.DECL

'Thus we woke up and baptized'

(16) ű́kúsèhùnà úháràìdʒì ítìhùnà

ű́kú -se -huna úhá ràì -dʒi ítìhùnà
drink -REL.PST -CL:group song sing -3PL.PRES.DECL they

'Drinking, they sang songs' (pyj 13.1)

(17) bébéhɨ̃ úháràìdʒì

bébé -hɨ̃ úhá ràì -dʒi
be.intoxicated -SS.OVLP song sing -3PL.PRES.DECL

'Intoxicated, they sang'

- I argue that 'temporal overlap' suffixes are part of a larger paradigm of clause-chaining devices:

MASC	FEM	PL	
∅ + -kɨ	∅ + -ko	∅ + -hɨ̃	indicate that the backgrounded event overlaps with the topic time
-tʃi + -kɨ	tʃi + -ko	-se + -huna	indicate that a backgrounded event occurs prior to the topic time
-ha + -gɨ	-ha + -go	-hai + -huna	indicate that the backgrounded event occurs after the topic time

Table 3: Clause-chaining suffixes

- These are the 'general class' suffixes, but specific class can be used as well.
- We then have three potential analyses of sentences like the one in (18):

(18) ɲátàsèhùnà sáhɨ̀

ɲátà -se -huna sá -hɨ
wake.up -REL.PST -CL:group go.PST.NI -3PL.PST.DECL

'The wakers-up left'
'They who woke up left'
'They woke up and left'

4 Non-asserted information

- The construction in question has three viable syntactic analyses, but coherent pragmatics: in all cases, it does not make an assertion.
- In other words, it does not consist of 'what the hearer is expected to know [...] as a result of hearing the sentence' (Lambrecht 1994), but of what the speaker expects the listener to take for granted.

- Ecuadorian Siona, a closely related Western Tukanoan language, has been described as encoding a distinction between **assertive** and **non-assertive** clause types by Bruil (2014), who notes a close relationship between classifiers and non-assertive agreement markers in the language.
- In earlier talks on Máíhɨ̃ki classifiers, I argued that the split between 'general' and 'specific' classification was a grammatical one rather than a pragmatic one (as it had been described for Miraña by Seifart (2005)).
- Seifart (2005) shows that Miraña specific class markers can be finite:

(19) kátɯːβ**hɨ** eː**hɨ** kɯːmɯ**hɨ**

kátɯːβ -hɨ eː -hɨ k´ɯːmɯ -hɨ
fall -SCM.2D.round DIST -SCM.2D.round turtle -SCM.2D.round

'It (disc-shaped) fell, that (disc-shaped) turtle' (Seifart 2005: 80)

(20) **tsá-hwːʔó-tɯ** **tsá-ɯ-ʔwɯ** mɛ pikó-ːʔi
one-SCM.palmleaf-ABL one-SCM.string-DIM 1/2S put-PRD
'From one palm leaf, one puts one string'

- In Máíhɨ̃ki, the domain of 'general' class is subject agreement in declarative sentences; the domain of 'specific' class is agreement within the noun phrase.
- But in contexts where the speaker says something assumed to be known by the interlocutor, specific classifiers may be used, and the non-assertive construction may stand alone.

(21) tómétɨ̀kà

tómé -tɨka
fall -CL:stick

'It (stick-shaped) is falling'
Context: the speaker and I are both watching a pen fall

- This calls for teasing apart the notions of finiteness and assertion, as e.g. Klein (2006) attempts to do.

5 Discussion: classifiers and non-asserted information

- Classifiers work well in contexts of presupposition and reference tracking because they are semantically bleached, encoding a single, narrow dimension of meaning.
- Reference is possible when the speaker correctly assumes the interlocutor is on the same page:

  - the fact that the speaker assumes common ground can be signaled by the semantic underspecificity of a classifier;
  - the nature of the common ground that the speaker assumes can be hinted at by the semantic narrowness of a classifier.

- Máíhɨ̃ki and other languages of the Amazon basin provide rich potential for an investigation into the interrelatedness of subordination, non-finiteness, non-assertion, and presupposition, and the role of classifiers in each.

6 Acknowledgements

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Appendix A Glossing abbreviations used

2STATE	second state
ACC	accusative
ANIM	animate
AUX	auxiliary
CL	classifier
COP	copula
DECL	declarative
DEM	demonstrative
DISCOURSE	discourse
DS	different subject
FEM	feminine
FUT	future
IMP	imperative
IMPF	imperfect
INAN	inanimate
INFO	information structure particle
INTR	intransitive verb
MASC	masculine
NI	ni-class verbs
ONOM	onomatopoeia
OVLP	temporal overlap
PL	plural
PRES	present
PROX	proximal
PST	past tense
Q	interrogative
REL	'relativizer'
SEQ	sequential
SIM	simultaneous
SS	same subject
TO	temporal overlap
TR	transitive verb

Appendix B Texts used

CODE	AUTHOR	TITLE
aag	SLA	ãĩ́kò ágàyà
bag	OLG	Biografías de Roberto Lopez (Kíno) y Amelia Gordillo de Jesus (Neeho)
cf1	ARS	Cómo formó la tierra, parte 1
clp	EMR	Máíneno y la primera collpa
cm2	TRR	Cómo mataba la gente antes
cmb	LPR	Cómo murió Babi
dos	EMR	El hombre que mezquinó sus dos mujeres
hab	LTN	El hijo abandonado
iy6	RRO	Hijo del tigre del cielo, parte II
mbd	LGF	Máíneno crea los animales
muj	LGF	La mujer que agarró el alma de su marido
ovi	OLG	Viaje de Otilia a Iquitos I
pvd	JMM	Fiesta de Pijuayo Verde
pyj	SRF	Cómo se prepararaba ayahuasca y toé antes
svc	SLA	Viaje de Soraida al congreso de 2012
ttj	TRR	Toadareyai

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