Highlights from the MelaTAMP project: Methods and results

Kilu von Prince, Manfred Krifka and Ana Krajinović

Cologne, 28 March 2019

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Translation-based searches

Genre-based browsing

Tagging

Overview

Introduction

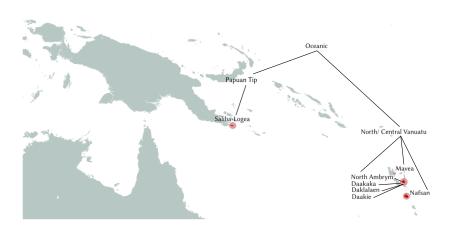
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 - on modality, aspect and tense in Oceanic,
 - · with a focus on habituality.
- We want to facilitate a discussion on which types of data are particularly useful in descriptive, comparative and theoretical research on low-resource languages.

MelaTAMP languages



Corpora were imported from their original ELAN, FLEX and Toolbox formats to ANNIS (Krause & Zeldes, 2016) through Druskat (2018).

Habituals in Oceanic

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Genre-based browsing

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- Question: How do Oceanic languages express habitual aspect (as in *I teach at college, lions eat meat*)?
- (Published) answer (von Prince et al., 2019):
 - primarily through reduplication or
 - imperfective aspect marking or
 - a combination of both;
 - · sometimes not at all.
- Additional finding: habituality can be a property of longer passages in addition to individual clauses (compare Carlson & Spejewski, 1997).

(1) Daakaka, future habitual: Reduplication plus imperfective

- auxiliary

 Ka ya=p du es-esi ngok teenem a nye ka na

 ASR 3PL=POT stay REDUP-see 2SG home and 1SG ASR 1SG

 w=i ten dóór kyun.

 POT=COP assigned.to dark.bush just

 "[People] shall see you in the village and I, I will go to the bush." (1347)
- (2) Mavea, future habitual: imperfective auxiliary me ro nno me ko-lo-suruvu atano na me ko-lo-taua fut then 2sg fut 2sg-impf-sleep ground but fut 2sg-impf-put otoli na atano egg loc ground "You will sleep on the ground, and you will lay eggs on the ground." (06016.060)

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Habituals: Translation-based searches

Example search

Searching for ft=/.*(always|usually|used to| would).*/

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Example hit:

(3) Daakaka, past habitual:

```
sivi te bwe bangbang myane nya na ene lorikeet DIST CONT play with 3D COMP DEF "Lorikeet used to play with the other two."
```

Habituals: Genre-based searches/ browsing I

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Tagging

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(4) Daakaka, generic:

```
mwe pwer-pwer yan leveno kyun te pwe en-en
REAL REDUP-stay on veno.tree just DISC CONT REDUP-eat
ar an
place DEF
"[The pheasant dove] lives on the veno tree and eats
there."
```

Habituals: Genre-based searches/ browsing II

· Biographic and historic accounts are good sources for past habituals.

Genre-based browsing

Habituals: Genre-based searches/ browsing II

- Biographic and historic accounts are good sources for past habituals.
- Most importantly, we have compiled lists of similar stories, plots and tropes, with significant overlap between corpora.

Table of comparable texts

Story	Naf.	Sal.	Daa.	Dal.	Mav.	#
Swamphen and Hawk	+	_	_	+	_	2
Child abducted by devil	+	_	_	+	_	2
Child defeats devil	+	_	_	+	_	2
Race between two animals	+	+	+	+	_	4
Rat and octopus/turtle	+	_	+	+	+	4
Two rocks arguing	+	_	_	+	_	2
Child of a snake	_	+	+	+	+	4
Human origin of coconut	+	_	+	+	+	4
Devil and Dove	_	_	+	_	+	2
Chicken and Megapode	_	_	+	_	+	2
Abduction of a magical girl	_	+	+	_	_	2
Stories per language	7	3	7	8	5	

Genre-based browsing

Near-minimal cross-linguistic pairs through comparable texts

- (5) Daakaka, future habitual: Reduplication plus imperfective auxiliary

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- (6) Mavea, future habitual: imperfective auxiliary me ro nno me ko-lo-suruvu atano na me ko-lo-taua FUT then 2SG FUT 2SG-IMPF-sleep ground but FUT 2SG-IMPF-put otoli na atano egg Loc ground "You will sleep on the ground, and you will lay eggs on the ground." (06016.060)

Name **Tags** Category Clause type clause assertion, question, directive; embedded: proposition, conditional, e.question, temporal, adverbial, attributive Temporal domain time past, future, present Modal domain factual, counterfactual, possible mood Aspectual domain event bounded, ongoing, repeated, stative Polarity polarity positive, negative

Table: Tag set of the MelaTAMP project.

• Prioritizing comparable subcorpora, we tagged individual texts for clause type, mood, temporal reference, aspect and polarity.

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Genre-based browsing

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Genre-based browsing

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 - (7) Daakaka, past habitual:

ya=t du tiye barar tevy-an na ya=t du 3P=DIST stay kill pig side.of-3s.POSS COMP 3P=DIST stay se tóó hook wild.cane "They used to kill a pig for the occasion of spear-throwing." (5210)

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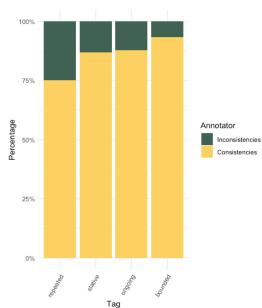
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 - "They used to kill a pig for the occasion of spear-throwing." (5210)
- The same tag also covers iterative contexts (The children were bouncing up and down on.)
- A documentation of our tag set can be found at https://wikis.hu-berlin.de/melatamp/Main_page.

Inter-annotator consistency



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 - (8) a. hinage ta dup-paisowa also 1INCL.SBJ DUP-work "we work hard too" (Saliba: Tautolowaiya_01AG_0048)
 - b. kamna-da te se yababa
 feeling-1INCL.POSS near.SP 3PL.SBJ bad
 "and we feel tired" (Saliba: Tautolowaiya_01AG_0049)

Generic passages

 The observation that habituality can be a property of stretches of discourse, not just of individual clauses, is not new: Carlson & Spejewski (1997):

- (9) a. My grandmother used to bake the most wonderful pies every Saturday.
 - b. She went to the orchard on Shady Lane early in the morning.
 - b'. The alarm clock would **have gone** off at 6 a.m.
 - c. She then would pick a basket each of apples and peaches.
 - c'. Cows would be in the orchard **mooing** at her.
- Something similar can be said for a number of TAM contexts, including
 - modal subordination,
 - · sequence of tense,
 - · reported speech,
 - · present-in-the-past;

summarized by roughly one sentence.

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Translation-based searches

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• Storyboards are picture stories such that each picture can be summarized by roughly one sentence.

- They are useful for the generation of entire texts ...
- with very specific semantic targets;
- For many speakers, a storyboard elicitation is a more meaningful task than, e.g. a judgement task.
- Crucially, storyboards can be used to create near-parallel corpora across speakers and languages.



(Vander Klok, 2013)

Storyboards: Bill vs. the Weather II

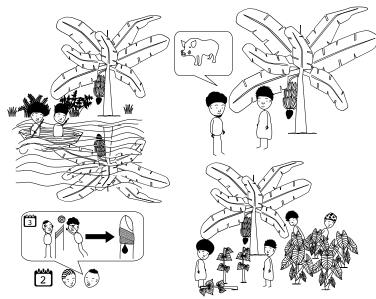




Storyboards: habitual contexts in Daakaka

- (10)taem wuoswa ka we mas yurmiline s-an sye mwelili nyoo ... time some ASR POT NEC forget CLF-3SG.POSS thing small.PL 3PL "sometimes he would always forget his small things [that he would take with him to his work]."
- (11) A mw=i vyanten swa na mo kuowilye ka we yurmiline sisye and REAL=COP person one COMP REAL know COMP POT forget things nyoo. 3_{PL} "And he was a person who would sometimes forget his things." (lit. "...who
 - could forget his things.") Mwe vyan yan mili gyes=an, bwe yurmiline kap, ki, sanglas,
- (12)REAL go on place.of work=NMLZ REAL.CONT forget cup key sunglasses at, myane sus. hat with shoes "He went to his work place, he would forget his cup, keys, sunglasses, hat and shoes."
- ...a mwe yur-yurmiline [...] suku-on ane gyes=an (13)nyoo. and REAL REDUP-forget stuff.of-3sg.poss TR work=NMLZ 3PL "and he repeatedly forgot his things for work."

MelaTAMP storyboards



Resources

Totem field storyboards (26):

http://totemfieldstoryboards.org

 MelaTAMP storyboards (8): https://zenodo.org, search for "melatamp storyboards"

- Publications on our corpus methods:
 - Druskat & von Prince (accepted)
 - Tjuka et al. (submitted)
- Publications on storyboards:
 - Burton & Matthewson (2015)
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Thank you!

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