

Empirical methods for describing tense, aspect, and mood: the case study of Nafsan

Ana Krajinović

Heinrich-Heine Universität Düsseldorf

4 March 2021, ICLDC, University of Hawai'i at Mānoa



Introduction

- describing tense, aspect, and mood (TAM) categories in language documentation is difficult
- I will discuss available empirical methods for studying TAM categories:
 - corpus work
 - storyboards
 - translation-based questionnaires (accompanied by meta-linguistic discussions)
- storyboards and questionnaires can help us find TAM functions missing from the corpus and uncover language-specific TAM properties
- I will use the testing of the Nafsan Perfect as an example of how these methods can be used

Nafsan (South Efate): Previous work

- grammatical description by Thieberger (2006) and other published work
- corpus (Thieberger, 1995–2019)

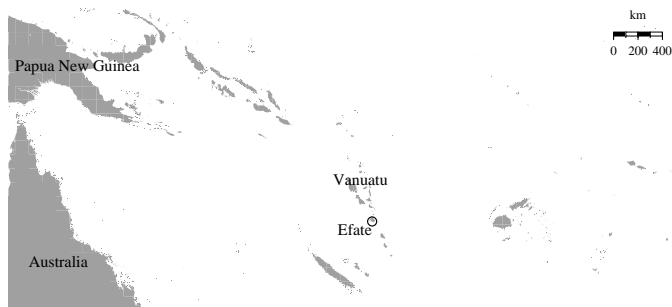


Figure 1: Location of Vanuatu and the island of Efate

Nafsan: Fieldwork

- storyboards (von Prince, 2018c; Krajinović, 2018c)
- questionnaires (Dahl, 2000; Olsson, 2013; Veselinova, 2018) and elicitation
- archived in PARADISEC (Krajinović, 2017)



Figure 2: Efate with locations where Nafsan is spoken

Perfect aspect (Comrie, 1976)

- (1) a. resultative (*I have arrived.*)
- b. 'hot news' (*I have just arrived.*)
- c. experiential (*I have been to Paris.*)
- d. universal (*I have been living in Paris since 2005.*)
- e. anteriority readings: past/future perfect (*When you entered the room, I had already left.*)
- f. incompatibility with definite temporal adverbs in present perfect (**I have arrived yesterday.*)

Perfect aspect (Comrie, 1976)

- (2) a. resultative (*I have arrived.*)
- b. 'hot news' (*I have just arrived.*)
- c. **experiential** (*I have been to Paris.*)
- d. **universal** (*I have been living in Paris since 2005.*)
- e. **anteriority readings: past/future perfect** (*When you entered the room, I had already left.*)
- f. **incompatibility with definite temporal adverbs in present perfect** (**I have arrived yesterday.*)

'Already' and iamitives

'Already', in contrast to the perfect, can be identified through (Vander Klok & Matthewson, 2015):

- change-of-state meaning
- **co-occurrence with past temporal adverbs**

Olsson (2013) argues for iamitives as a separate category from perfect:

- **lack of experiential, universal, and anteriority functions**
- presence of an additional change-of-state meaning (Olsson, 2013)

Structure of Nafsan

Table 1: Exemplified verbal complex in Nafsan

SBJ=	TMA	AUX	NEG1	BEN	V	PFV	NEG2
<i>rui</i> = (3PL.PRF),	<i>pe</i> (PRF)	<i>mer</i> ('again')	<i>ta</i> (<i>p</i>)	<i>ga</i> (3SG)		<i>su</i>	<i>mau</i>
<i>i</i> = (3SG),	⋮	⋮					
<i>ka</i> = (1SG.IRR)	⋮	⋮					

Corpus work

The marker *pe* has been described as perfect in Nafsan (Thieberger, 2006), but some challenges remain:

- co-occurrence with temporal adverbs, like ‘already’

(3) My brother SAY (yesterday) that the water BE COLD (the day before yesterday, but I think he was wrong) (Dahl, 1985:TMAQ113)

ḥal-u-k *i=tl-i-ø* *nanom* *na* *nai*
 brother-V-1SG.DP 3SG=say-TS-3SG.OBJ yesterday COMP water

ki=pe ***mlanr nas***
 3SG.PRF=PRF cold day.before.yesterday

‘My brother said yesterday that the water was cold the day before yesterday.’ (Thieberger, 2006)

Corpus work

Table 2: Occurrence of different functions of *pe* in the corpus (+ attested, ? unattested/unclear, perfect=blue, iamitive/‘already’=red)

Method	Universal	Experiential	Anterior.	Result.	Adverb	CoS
Corpus	?	?	+	+	+	+

Questionnaires: Targeting perfect readings

- **The Perfect Questionnaire** (Dahl, 2000:PQ) targets perfect functions (cf. general TAM questionnaire Dahl, 1985)

(4) [Experiential] Question: You MEET my sister (at any time in your life up to now)? (Dahl, 2000:801, PQ4)

(5) [Nafsan]

kui=pe paatlas kore-k te-mal?

2SG.PRF meet sister-1SG.POSS one-time

‘Have you met my sister?’ (AK1-115-01)

- only possible with speakers fluent in English and interested in meta-linguistic discussions (1–2 speakers in Nafsan)

Storyboards

- 1 the linguist tells the story (in Bislama here) and the speaker retells it by looking at the pictures (Burton & Matthewson, 2015)
- 2 less translation bias; speakers do not need to be fluent in English; allows for more speakers being tested (5–6 speakers in Nafsan)

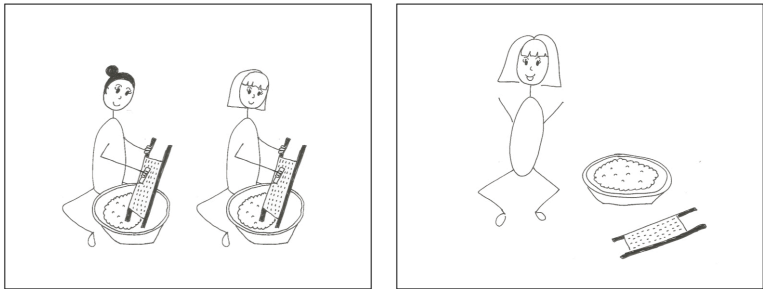


Figure 3: ‘While Lili is grating pink taro, Mary is grating white taro.’ Targeted context: ‘Mary says: I **have grated** the taro, what do we do now?’ [from “Making laplap” (Krajinović, 2018c)]

Missing functions: Testing experiential perfect

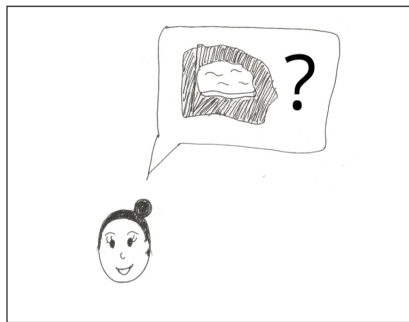


Figure 4: [EXPERIENTIAL] 4. Lili asks Mary: **Have you ever eaten laplap before?**
[from “Making laplap” (Krajinović, 2018c)]

Missing functions: Experiential perfect in Nafsan

- (6) Ag *kui=pe* *paam kapu?*
 2SG 2SG.PRF=PRF eat laplap
 ‘Have you eaten laplap before?’ (AK1-151-02, 00:01:18.633-00:01:20.950)

Missing functions: Testing universal perfect

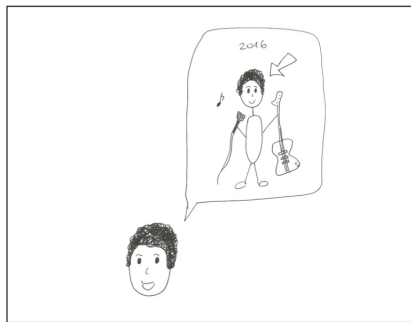


Figure 5: [UNIVERSAL] 6. But my hair **has been long** like this since I started singing in a band (2016). [from “Haircuts” (Krajinović, 2018b)]

Missing functions: Universal perfect in Nafsan

- (7) *nal-u-k ga ki=pe pei top malpei mai malen kin*
 hair-V-1SG.DP that 3SG.PRF=PRF first big before come when COMP
a=to lag eñrom ni band i=skei
 1SG=PROG sing inside of band 3SG=one
 ‘My hair **has been long since** I started singing in a band.’ (AK1-152-03,
 00:03:00.705-00:03:14.338, based on Koontz-Garboden 2007:142)

Temporal adverbs: questionnaire

- (8) Context: A question asked at 9 o'clock a.m.: Why do you look so tired? Answer: I WAKE UP at 4 o'clock this morning. (Dahl, 2000:TMAQ 16)

**kai=pe/ a=pilo 4 oklok ðulðog.*

*1SG.PRF=PRF 1SG=wake.up 4 o'clock morning

'I woke up at 4 o'clock this morning.' (AK1-119-01)

- (9) Context: If your alarm is set for 5 a.m., but by chance you woke up at 4 a.m.

Kai=pe pilo 4 oklok ðulðog.

1SG.PRF=PRF wake.up 4 o'clock morning

'I had woken up at 4 o'clock in the morning.' (AK1-119-01)

- this type of insight is only possible through a meta-linguistic discussion

Temporal adverbs: Storyboards

Matthewson et al. (2017) highlight this example as eliciting temporal adverb restrictions:

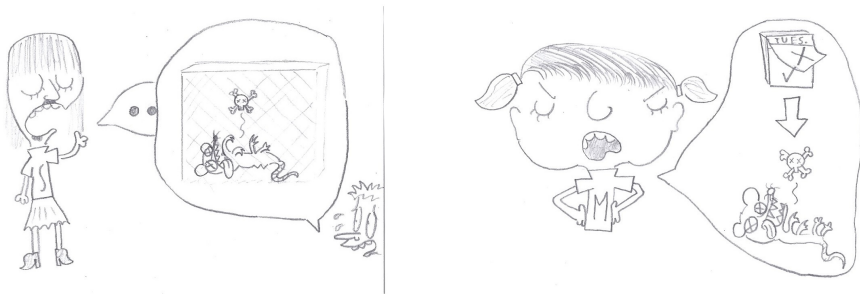


Figure 6: A: The pet rat has just died! B: He is lying, he died yesterday. [from “Miss Smith’s bad day” (Matthewson, 2014)]

Temporal adverbs: Storyboards

- (10) Context: The rat the class takes care of **has just died**.

i=to psir, ga ki=pe mat nanom su.

3SG=PROG lie 3SG 3SG.PRF=PRF die yesterday PFV

‘He is lying, **he had died yesterday**.’ (AK1-146-04,
00:04:03.626-00:04:10.640)

Summary

Table 3: Occurrence of different functions of *pe* in 3 empirical methods (+ attested, ? unattested/unclear, -/+ restricted to certain environments, **perfect=blue**)

Method	Universal	Experiential	Anterior.	Result.	Adverb	CoS
Corpus	?	?	+	+	+	+
Storyb.	+	+	+	+	-/+	-/+
Quest.	+	+	+	+	-/+	-/+

Conclusion

- 1 preliminary work on the corpus is useful in order to establish the hypotheses and design the methodology
- 2 translation-based questionnaires can quickly identify new functions and language-specific restrictions
 - meta-linguistic discussions can be especially helpful for this
- 3 storyboard test the findings easily across different speakers (not fluent in English), with less translation bias
- 4 restrictions based on the English structures might be realized in a different way, e.g. because of lack of tense

My slides are available at: <https://bit.ly/372uniz>

Original link: <https://anakrajinovic.com/wp-content/uploads/2021/02/ICLDC21presentation.pdf>

I wish to thank all Nafsan speakers who made this PhD thesis possible by participating in my research, this work is for you: Lionel Emil, Gray Kaltaṗau, Yvanna Ataurua, Marinette Kalpram, Belinda Kalopong, Julian Malnaem, Michael Joseph, Honoré Albert, Jefferey Taun, Lingkary Carol Kalpram, Glenda Lalier, Lillot Reecy, Touskau Kaloros, Tumaira Kaltaṗau, and Rose Kalfabun.

I thank especially to Lionel Emil, a semanticist in disguise, and Gray Kaltaṗau for their particular interest in my work and intricacies of linguistics, as well as the invaluable help with transcription and translation of the Nafsan recordings.

Questionnaires elicited in Nafsan (Krajinović, 2019)

Table 4: Questionnaires elicited in Nafsan

Name of the questionnaire	Targeted categories	Source/reference
The Perfect Questionnaire	perfect	Dahl (2000:PQ)
The Iamitive Questionnaire	iamitive	Olsson (2013:IQ)
The <i>Nondum</i> Questionnaire	<i>nondum</i> ‘not yet’	Veselinova (2018:NQ)
The Future Questionnaire	future, irrealis	Dahl (2000:FQ)

Storyboards elicited in Nafsan (Krajinović, 2019) I

Storyboard	Targeted categories
“Festival” (von Prince, 2018c)	modality (conditionals)
“Red yam” (von Prince, 2018d)	modality (conditionals)
“Fat pig” (von Prince, 2018b)	modality (relative clauses)
“Bundle of bananas” (von Prince, 2018a)	modality (complement clauses)
“Tomato and pumpkin” (von Prince, 2018e)	aspect (change of state)
“The fortune teller” (TFS, 2010)	modality (conditionals)
“The woodchopper” (TFS, 2011d)	modality (conditionals)
“Tom and Mittens” (Rolka & Cable, 2014)	modality (epistemic)
“Bill vs. the weather” (Vander Klok, 2013)	modality (epistemic)
“Chore girl” (TFS, 2011a)	modality (deontic)
“Hawaii trip” (Underhill & Cable, 2015)	aspect (sequences, temp. adverbs)
“Chameleon story” (TFS, 2012a)	aspect (change of state)
“Sick girl” (TFS, 2011c)	modality (deontic)
“Feeding fluffy” (TFS, 2012b)	modality (epistemic)

Storyboards elicited in Nafsan (Krajinović, 2019) II

“Miss Smith’s bad day” (Matthewson, 2014)	aspect (perfect)
“On the lam” (TFS, 2011b)	modality (epistemic)
“Garden” (Krajinović, 2018a)	modality (conditionals)
“Garden 2” (Krajinović, 2018a)	modality (conditionals)
“Making laplap” (Krajinović, 2018c)	aspect (perfect), modality/negation
“Making laplap 2” (Krajinović, 2018c)	modality/negation
“Haircuts” (Krajinović, 2018b)	aspect (perfect, change of state, neg.)

References I

- Burton, Strang & Lisa Matthewson. 2015. Targeted construction storyboards in semantic fieldwork. In M. Ryan Bochnak & Lisa Matthewson (eds.), *Methodologies in semantic fieldwork*, 135–156. New York: Oxford University Press. doi:10.1093/acprof:oso/9780190212339.001.0001.
- Comrie, Bernard. 1976. *Aspect*. Cambridge: Cambridge University Press.
- Dahl, Östen. 1985. *Tense and aspect systems*. Oxford: Blackwell.
- Dahl, Östen. 2000. The Perfect Questionnaire. In Östen Dahl (ed.), *Tense and aspect in the languages of Europe*, 800–809. Berlin: Mouton de Gruyter.
- Koontz-Garboden, Andrew. 2007. Aspectual coercion and the typology of change of state predicates. *Journal of Linguistics* 43(1). 115–152.
- Krajinović, Ana. 2018a. Garden (MelaTAMP storyboards). *Zenodo* doi:<https://doi.org/10.5281/zenodo.1421237>.
- Krajinović, Ana. 2018b. Haircuts (MelaTAMP storyboards). *Zenodo* doi:<https://doi.org/10.5281/zenodo.1421227>.

References II

- Krajinović, Ana. 2018c. Making laplap (MelaTAMP storyboards). *Zenodo*
doi:<https://doi.org/10.5281/zenodo.1421185>.
- Krajinović, Ana. 2019. *Tense, mood, and aspect expressions in Nafsan (South Efate) from a typological perspective: The perfect aspect and the realis/irrealis mood*. Humboldt-Universität zu Berlin and The University of Melbourne.
<https://minerva-access.unimelb.edu.au/handle/11343/237469>. PhD thesis.
- Krajinović, Ana (collector). 2017. Nafsan recordings (AK1). Digital collection managed by PARADISEC. [Open Access]
<http://catalog.paradisec.org.au/collections/AK1>. doi:10.4225/72/5b2d1d0a315a2.
- Matthewson, Lisa. 2014. Miss Smith's Bad Day. *Totem Field Storyboards*
<http://www.totemfieldstoryboards.org>. Accessed on 10 Sep 2018.

References III

- Matthewson, Lisa, Bruno Andreotti, Anne Bertrand, Heather Burge, Sihwei Chen, Joash Gambarage, Erin Guntly, Thomas J. Heins, Marianne Huijsmans, Kalim Kassam, Elise McClay, Daniel Reisinger, Raiane Salles, Michael David Schwan, Jozina Vander Klok & Hotze Rullmann. 2017. Developing a 'perfect' methodology. Paper presented at The semantics of verbal morphology in under-described languages, University of Gothenburg, 2-3rd June 2017. Accessed on 12 Jan 2019. https://sprak.gu.se/digitalAssets/1653/1653519_perfect-methodology_matthewson-et-al_abc.pdf.
- Olsson, Bruno. 2013. *Iamitives: Perfects in Southeast Asia and beyond*. MA thesis, Stockholm University.
- von Prince, Kilu. 2018a. Bananas (MelaTAMP storyboards). *Zenodo* doi:<https://doi.org/10.5281/zenodo.1230385>.
- von Prince, Kilu. 2018b. Fat pig (MelaTAMP storyboards). *Zenodo* doi:<https://doi.org/10.5281/zenodo.1231798>.
- von Prince, Kilu. 2018c. Festival (MelaTAMP storyboards). *Zenodo* doi:<https://doi.org/10.5281/zenodo.1231804>.

References IV

- von Prince, Kilu. 2018d. Red yam (MelaTAMP storyboards). *Zenodo*
doi:<https://doi.org/10.5281/zenodo.1231808>.
- von Prince, Kilu. 2018e. Tomato and pumpkin (MelaTAMP storyboards). *Zenodo*
doi:<https://doi.org/10.5281/zenodo.1231836>.
- Rolka, Matthew & Seth Cable. 2014. Tom and Mittens. *Totem Field Storyboards*
<http://www.totemfieldstoryboards.org>. Accessed on 27 Oct 2017.
- TFS, Working Group. 2010. The fortune teller (First Nations Version). *Totem Field Storyboards* <http://www.totemfieldstoryboards.org>. Accessed on 27 Oct 2017.
- TFS, Working Group. 2011a. Chore girl. *Totem Field Storyboards*
<http://www.totemfieldstoryboards.org>. Accessed on 27 Oct 2017.
- TFS, Working Group. 2011b. On the Lam. *Totem Field Storyboards*
<http://www.totemfieldstoryboards.org>. Accessed on 8 Aug 2018.
- TFS, Working Group. 2011c. Sick girl. *Totem Field Storyboards*
<http://www.totemfieldstoryboards.org>. Accessed on 27 Oct 2017.

References V

- TFS, Working Group. 2011d. The woodchopper. *Totem Field Storyboards*
<http://www.totemfieldstoryboards.org>. Accessed on 27 Oct 2017.
- TFS, Working Group. 2012a. Chameleon story. *Totem Field Storyboards*
<http://www.totemfieldstoryboards.org>. Accessed on 27 Oct 2017.
- TFS, Working Group. 2012b. Feeding Fluffy. *Totem Field Storyboards*
<http://www.totemfieldstoryboards.org>. Accessed on 27 Oct 2017.
- Thieberger, Nicholas. 2006. *A grammar of South Efate: An Oceanic language of Vanuatu*. Honolulu: University of Hawai'i Press.
- Thieberger, Nick. 1995–2019. Guide to the Nafsan, South Efate collection.
<http://www.nthieberger.net/sefate.html>. Accessed on Dec 5, 2020.
- Underhill, Rose & Seth Cable. 2015. Hawaii trip. *Totem Field Storyboards*
<http://www.totemfieldstoryboards.org>. Accessed on 27 Oct 2017.
- Vander Klok, Jozina. 2013. Bill vs. the weather. Totem Field Storyboards. Accessed on 27 Oct 2017. <http://www.totemfieldstoryboards.org>.
- Vander Klok, Jozina & Lisa Matthewson. 2015. Distinguishing already from perfect aspect: a case study of Javanese *wis*. *Oceanic Linguistics* 54(1). 172–205.

References VI

- Veselinova, Ljuba. 2018. Questionnaire on iamitives 'already' and nondums 'not yet', Ms. Accessed on 8 Dec 2018.
https://www2.ling.su.se/staff/ljuba/notyet_questionnaire.pdf.