

Silent gaps as a distinctive feature of direct speech: a corpus study of Nisvai narratives, Vanuatu

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SILENT GAPS AS A DISTINCTIVE FEATURE OF DIRECT SPEECH

A CORPUS STUDY OF NISVAI NARRATIVES, VANUATU

Jocelyn Aznar February 11, 2021

Leibniz ZAS

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INTRO

PROBLEMATIC

Study of silent gaps as part of the Nisvai Direct Speech device

- · how silent gaps contribute to the Nisvai's Direct Speech device,
- developing tools for doing cross-linguistic comparison of silent gaps.

THE NISVAI COMMUNITY AND CORPUS' PROJECT

An oral language which has been the subject of only one previous lexical study by Charpentier (1984).

Around 200 natives speakers: the native language of the children.

The language is used in most dayly activities, except:

- · Relationships with other village communities: Bislama.
- · Church: Bislama, a bit of English. Translating to Nisvai.
- School: Teaching language is French, but children actually learn to speak Bislama fluently there, and just few words of French.

Corpus original purposes:

- Ethnolinguistics research on Nisvai narrative practices,
- For the Nisvai speakers: having a writen system and language resources for the local school.

ABOUT NISVAI3

- Austronesian language>Oceanic Language> Central Vanuatu¹
- · SVO language
- Offers some lexical flexibility (van Lier, 2016), but not omnipredicative² as other languages of the area.
- Very few adjectives and adverbs, but many stative verbs (including numbers, color terms):
- Only animate objects can be subject and no passive.
- Tense: non Future/ Future
- · Mood: Irrealis/Realis

¹See https://glottolog.org/resource/languoid/id/nisv1234 for a more detailled description.

²Many Austronesian language are described as omnipredicative (Launey, 2004) (François, 2001).

³The name, used by the speakers, means "what", as it is very common in the area.

AN ANNOTATED ORAL CORPUS OF NARRATIVES

The corpus of Nisvai narratives:

- 165.5 minutes with 32 narratives of between 0.67 to 13.32 minutes,
- · 3041 annotations units : 1301w, 1740m,
- 18 speakers, 2 sex (5w, 13m), from 5 to 80 years old,
- practical orthography: no characters outside the ASCII set,
- Nisvai speakers regard their narratives as true stories.

ANNOTATING THE NARRATIVES

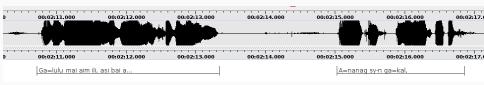


Figure 1: Segmentation into annotation units: interpausal units.

ANNOTATING THE NARRATIVES

00:05:57.250	No	Type 1 : Transcription	Type 2 : Textualite	Type 3 : Reference	Type 4 : Morphologie	Type 5 : Note	Type 6 : Traduction
☐ ► DS Ø			péripétie_9	T21.t2013.93	3SG=dire derrière ASP.A		Il dit, derrière :
Intervalle de temps: 00:05:55.640 - 00:05:57.250 1610	94		péripétie_9	T21.t2013.94	INTER NEG 1SG=porter=rentrer	pacguli: karem bak	Mais non, j'ai déjà ramené les
00:05:56,000 00:05:57.000		qa=lu-lu mai, daru.			enfant ASP.F 2SG=rentrer-RED revenir 1INCL		enfants, reviens, allons-y.
			péripétie_9	T21.t2013.95	COO.OP entrafles-2SG 3SG=être_en_colèreaussi INT		Ne sois pas en colère.
Volume 100		Qa=mai daru, dara⇒lu van dry va=roh, dara⇒lap-lapvis ga⇒vu moq bul	péripétie_9	T21.t2013.96	2SG=venir 1RCL 1RCL=rentrer aller C00 aller=rester 1RCL=RED=jouer 3SG=ëtre_bien ASP.F C00.0P		Viens, allons-y, revenons et restons jouer ensemble, c'est bien comme ça mais
voidine 100	97	qa-pac-lu a-nahre mog dry van	péripétie_9	T21.t2013.97	25G=apporter=rentrer ART.P=enfant	vhasus hni : donner le sein.	rapporte les enfants et va les
Taux 100		va=ligi. Daru dara=van va=vhasus=hni.»			ASP.F COO aller aller=déposer-INTR 1/NCL 1/NCL=aller aller=nourrir=08/		déposer. Allons les nourrir.»
100							
Paramètres	98	Bul a=Dvwume, nanov-in sy-n ga=sab.	péripétie_10	T21.t2013.98	COO.OP ART.P=NOM penser-NOM PA-3SG 3SG=mauvais		Mais le pigeon est en colère.
Lecteur automatique du media	99	Ga=kal ga=mas (ga=roh dry) mac ni	péripétie_10	T21.t2013.99	3SG=dire 3SG=devoir 3SG=rester		I se dt qu'il doit mourir.
☑ Créer les annotations manquantes		' ' '			COO mourir INT		
Montrer le nom des acteurs	100	Ga=cah-ni mitas, ga=dryb avyn-i Rarhan ih	péripétie_10	T21.t2013.100	3SG=jeter-INTR à_nouveau 3SG=tomber IMDEE-INTR LIEU	barbaruh : blaksand / nabangura.	il en jette une à nouveau, elle tombe dans un endroit comme Barbaruh.
Colorier les numéros de colonnes uniquem							
Parcourir la colonne	101	Ga⇒kai dry svoh:	péripétie_10	T21.t2013.101	3SG=chanter COO voler		I chante et vole :
Centrer l'affichage temporel sur l'annotation	102	«i-sa-m natu-m aru meh-meh, i-sa-q natu-g aru vog vog»	chant_5	T21.t2013.102	PRO-PA-2SG enfant-2SG 3PLASP.EC être noir.BED PRO-PA-1SG enfant-1SG		«Les tiens, tes deux enfants sont noirs, les miens, mes deux enfants.
Configurer		macu-q ard vog vog=			3PLASP.EC être_marron:RED		sont marrons.»
	103	Ga=svoh dry	péripétie_10	T21.t2013.103	3SG=s'envole COO		I s'envole et
	104	ga=kai mitas van van bulahe qanag	péripétie_10	T21.12013.104	3SG=chanter a_nouveau ASP.A MUL atteindre comme		chante à nouveau, l'atteint comme ca.
	105	pac naroh avyn mi, cah-ni ga⊷dryb libagan,	péripétie_10	T21.t2013.105	prendre chose DEF à_nouveau jeter-INTR 3SG=tomber plage		prend une autre liane, la jette et elle tombe sur la plage.
				-	•	-	

Figure 2: Content annotation using ELAN

DATA SCIENCE FRAMEWORK

Computer notebook: Jupyter (Kluyver et al., 2016))

- · Reproductibility Berez-Kroeker et al. (2018),
- Facilities for doing exploration studies using quantitative and visualisations analysis,
- Algorithmic studies: apply queries on each annotation and have a result,
- Helps for replication as well by providing the algorithms that were used Drummond (2009).

The notebook and the data associated with this presentation will be available soon.

REPORTED SPEECH IN NISVAI

GENERAL REMARKS

Direct speech sequence/frame (Genetti, 2014) = introductory segment + reported speech + conclusive segment

Indirect speech sequence = introductory segment + reported Speech

Indirect Speech	Direct Speech		
Keep the narrative's language	Language of the reported speech		
Current situation's mood	Mood of the Reported situation		
Current situation's deictics	Reported situation's deitics		
No Enactement	Enactment ⁴		

⁴different voice timbre, different pitch

INDIRECT SPEECH

Indirect speech is often used to convey the thoughts of the characters.

(1) Interior speech, T21.t2013.98-99

Bul a=Livwume, nanov-in sy-n ga=sab.

COO.OP ART.P=NOM think-NOMI PA-3SG 3SG=bad

'But the Pigeon is angry.'

Ga=kal ga=mas mac ni.

3SG=say 3SG=must die INT

'She is telling herself that she has to die⁵.'

⁵Little enactment here: lower and angry voice

INDIRECT SPEECH

(2) Indirect speech, T15.2013.10

Ara=lav-lavis van ili, bog a=ckai, tatag

3PL=RED-play ASP.A ASP.R day 3SG=be_one father

sy-n ga=pac-i ga=kal ga=va=vor lhoi.

PA-3SG 3SG=take-INTR 3SG=say 3SG=go=draw_water river

'They play sometimes, one day, his father carries something and says he is going to draw water in the river.'

INDIRECT SPEECH

(3) Interior speech, T1.2013.125

Bul kabani nahemac ili ari avy n

COO.OP group deamon DET 3PL DEF 3PL=be

ara=tuv lyn bar

INST mud DET

ili

PRO 3SG=say 3SG-?? hurt-INTR PRO 3SG=say 3SG-?? hurt-INTR

avyn ga=kal ga=emo tams-i.

'But among the group of the deamon that went to the mud, one says he will hit him, another says he will hit him.'

MARKING DIRECT SPEECH IN NISVAI

435 direct speech occurrences in the corpus.

Introductory verbs:

- · kal: "to say", not mandatory but... almost.
- · tog-i: "to listen-to something",
- · qan: "to be like",
- · kai: "to sing"

Interjections or Appelative: Marking the beginning of the quotation or turn-taking in a dialogue.

Poetic sequences: The poetic sequences are always introduced as direct speech.

EXAMPLES OF DIRECT SPEECH

(4) "pus": support verb for direct speech, **T44.2015.37**ara=pus ga=kal: «Haig, nanag sa-m nmah a?»

3PL=ask 3SG=say 2SG mother PA-2SG snake INTER

'They ask, s/he say: «You, your mum is a snake, eh!»'

MIX DIRECT AND INDIRECT SPEECH

(5) **T21.t2013.43**

«Bul ruben isv-n ga=meh-meh avvn COO.OP PREP.CAUSE PA-3SG 3SG=to be black-RED REL qa=meh-meh.» Bul qu-r=lys Sa 3SG=to_be_black-RED COO.OP 3SG.ASP.EC-FUT=see PA Livwume, dry tog-i: «Ruben kal isy-n COO think-INTR PREP.CAUSE say BIRD PA-3SG redgu-n ursao ga=vog-vog aq throat-3SG DEI.LOC.E 3SG=to_be_brown-RED DEI.P qan, isy-n ga=vog-vog qan to be like PA-3SG 3SG=to be brown-RED to be like ag.» dry tog-i DELP COO.VB think-INTR

'«But hers are black, very black.» And he looks at those of the Pigeon and thinks: «Why she says hers have a brown throat like that, hers have a brown throats like that.» he thinks.'

SPLIT DIRECT SPEECH SEQUENCE

(6) T41.2015.97 T41.2015.101

```
«E!», qa=kal-i visqy-n napnevur sy-n aru
INTER 3SG=say-INTR OBJ-3SG woman PA-3SG 3PL.DU
qa=kal : «E!
3SG=sav INTER
'«Eh» he says to his two wives: «Eh!'
Mura=ls-i, avys ara=mac-mac pal moq, amru
2PL=see-INTR other 3PL=be dead ASP.T ASP.F 2PL
ni myciq mra=roh-roh.
INT COO.TMP 2PL=stay-RED
'You see, the others are dead already, only you two are left.'
Be mra=kaikai nahsy-q,[...]
NFG 2PI = call name-1SG
'Don't call my name.[...])'
```

SILENT GAP AFTER THE INTERJECTION

(7) Silent gap just after the interjection, **T1.2013.189-190**

```
Bul a=Tamata van va=puc ari kal: «Eh, COO.OP ART.P=NOM go go=lie 3PL say INTER 'So Tamata goes to lie and says: «Eh,' dara=qamqam ni.»»

1INCL=to_speed_up INT 'let's go fast.»'
```

They represent 112 of 435 direct speech occurrences in the corpus.

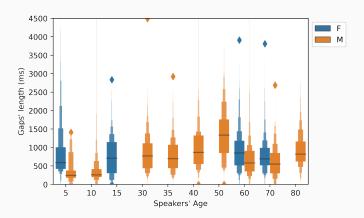
THE SILENT GAPS OF NISVAI DIRECT

SPEECH

GENERAL REMARKS

Breath gaps included into silent gaps.

	25%	mean	50%	75%
% of silence ⁶	20.6	25,9	26,6	30
length	430	845	745	1100



SILENT GAP LENGTH'S FACTORS

What are the factors that influence the length of silent gaps:

- Sex (coef +- 59.5137, P>|t| = 0,000)
- Age (coef 1.7553, P>|t| = 0.003)
- Position in the text (coef -2.5702; P>|t| = 0.000)
- Local Speech Rate⁷ (coef 15.0498; P>|t| = 0.000)
- Text's length (coef 0.3552; P>|t| = 0.000)

According to the statistical tests (OLS), these variables affects significatively the length of silent gaps, but only very slightly (as the coefficients show.).

⁷Local Speech Rate is calculated by counting the number of phonemes in an annotation units.

A MODEL OF NISVAI'S DIRECT SPEECH SEQUENCE

Direct Speech	Verb	gap	INTER	gap	RS	gap
Frequencies	?8	199	356 ⁹	112	435	417

⁸I have not counted them yet, but direct reported speech without introductory verbs exists, but are not numerous.

⁹Only 14 interjections are not used for marking the beginning of direct speech. No use of interjection for indirect speech.

SILENTE GAPS AND DIRECT SPEECH: BEFORE AND DURING.

Sample: 435 of Direct Speech sequences over around 3000 silent gaps.

The length of the silent gaps:

- after an interjection (112 occurrences): no significant variation (P>|t| 0.545),
- before direct discourse (199 occurrences): no significant variation (P>|t| 0.100),
- after direct reported speech (417 occurrences): significant increase (P>|t| 0.000), mean length 985 ms (compared to 821 ms).

Conclusion

CONCLUSION

in Nisvai, interjections and silent gaps (before and during) are distinguishing Direct Speech from Indirect Speech.

Silent gaps can be after the introductory verbs, but also after the interjection starting the direct speech.

- Nisvai has a very limited number of introductory verbs
- Direct speech is produced using two terms (usually verbs):
 - · A verb or a term of manner,
 - A verb introducing the content of the reported speech.

PERSPECTIVES

- Taking into account the role of appelative for direct speech.
- Using this as a framework for cross corpora comparison.
- sex and age will not be comparable using language documentation corpora as they mostly contain texts performed by few speakers.

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SPEAKERS IN THE CORPUS

sex	age	age_group	speaker
F	5	child	Anici
F	5	child	Selina
F	15	child	Kati
F	60	elder	Limeten
F	70	elder	Rosie
Μ	5	child	Enfant_2
Μ	10	child	Epel
Μ	10	child	John-Hari
Μ	30	adult	Aven
Μ	35	adult	Filip
Μ	35	adult	Kalbatik
Μ	40	adult	Bongman
Μ	50	adult	Dale
Μ	60	elder	Luan
Μ	60	elder	Sumbles
Μ	70	elder	Bogalgal
Μ	80	elder	Bongmeme
Μ	80	elder	Salben

ERRORS IN THE PERFORMANCE...

... the relevance of the model:

T16.t2013.96 - 97

- · Ara=tog-i van dry taid ili ara=kal: «Tck.»
- · Ara=wuc moq-i, ara=lig plan avyn dry kal: «E

Aven then restarts with direct discours.