OUTLINE

■ General background
■ Objectives
■ Data and sample
■ Case studies:
  - Stress in nouns
  - “Ornamental” particles
  - Time adverbials
■ Conclusions
THE LANGUAGE

- Mapudungun, aka Mapuche (Araucanian) (NTBCW Arauan or Arawakan).
- Ancient territory: South Chile and Argentina
- Speakers: ~ 200,000?
- Language isolate.
- Tendencies towards polysynthesis and agglutination (in the verb).
- Almost no morphology in nouns.
Intra- and inter-speaker variation is a key component of language, although it is usually obscured in grammar description (Barlow 2013).

Grammars aim to provide generalizations, usually an inventory of the existent forms and the contrasts behind them, disregarding heterogeneity.

In addition, by its historical nature and scholarly tradition, grammars depict a particular and crystallized picture of a language in time.
Advocate for the importance of reporting variation in grammars, even if the variation seems meaningless at first sight.

- Across the examples, it will be shown that variation has the potential to be meaningful and, even if the patterns are not well understood yet, they could be explained by future researchers.
DATA

- Conversational corpus. Collected during a fieldwork in Llaquepulli, Region of Araucanía, Chile.

- Nine interviews in Mapudungun.
  - 40-81 min. Average: 55 min
  - Total: 474 min (7:54 hr.)
  - Words sample: 44,622 words

- Participants: Mapuche native speakers.
  - 4 women, 5 men (40-85 years, raised in the community, one monolingual, two followed formal education outside the community).

- Interviews recorded, transcribed, checked and markup added. Syntactic, semantic, and information structure annotations for the particle analysis. Phonetic analysis.

- For second study, I also used published conversations and narrative published data.
CASE 1:

STRESS IN DISYLLABIC NOUNS
# MAPUDUNGUN NOUNS

<table>
<thead>
<tr>
<th>Few monosyllabic:</th>
<th>Mainly disyllabic</th>
</tr>
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<tbody>
<tr>
<td>[ko] ‘water’</td>
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</tr>
<tr>
<td>[tʃe] ‘person, people’</td>
<td>[tro.mü] ‘cloud’</td>
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<tr>
<td></td>
<td>[lew.fɨ] ‘river’</td>
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<tr>
<td></td>
<td>[loŋ.ko] ‘head, chief’</td>
</tr>
<tr>
<td><img src="ko.png" alt="ko" /></td>
<td><img src="ma.pu.png" alt="ma.pu" /></td>
</tr>
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<td><img src="tro.m%C3%BC.png" alt="tro.mü" /></td>
</tr>
<tr>
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</tbody>
</table>

<table>
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<tr>
<th>Some trisyllabic:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[ma.'wi.ða] ‘woodland’</td>
<td>[lam.ŋen] ‘sibling (among women &amp; men-women)’</td>
</tr>
<tr>
<td>[ka.'chi.ʎa] ‘wheat’</td>
<td>[man.sun] ‘ox’</td>
</tr>
<tr>
<td>[wa.ŋi.'len], [waŋ.'len] ‘star’</td>
<td><img src="lam.%C5%8Ben.png" alt="lam.ŋen" /></td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>![wa.ŋi.'len], <a href="wa.%C5%8Bi.'len">waŋ.'len</a>, <a href="wa%C5%8B.'len">waŋ.'len</a>.png] ‘star’</td>
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</tr>
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MAPUDUNGUN NOUNS

Few monosyllabic:
[ko] ‘water’
[tje] ‘person, people’

Mainly disyllabic
['ma.pu] ~ [ma.'pu]  ‘land’
['tro.mü] ~ [tro.'mɨ]  ‘cloud’
['lew.fɨ] ~ [lew.'fɨ]  ‘river’
['loŋ.ko] ~ [loŋ.'ko]  ‘head, chief’

Some trisyllabic:
[ma.'wi.ða] ‘woodland’
[ka.'chi.ʎa] ‘wheat’
[wa.ɲi.'len], [waŋ.'len] ‘star’

[lam.'ɲen] ~ ? [lam.ɲen]  ‘sibling (among women & men-women)’
[man.'sun] ~ ? [man.'sun]  ‘ox’
[mo.'ɲen] ~ ? [mo.'ɲen]  ‘life’
[kɨ.'ðaw] ~ ? [kɨ.'ðaw]  ‘work’
ANTECEDENTS

Stress described from Valdivia (1606).

(1) Valdivia (1684) Febrés (1765) and Augusta (1903)

a. ['ma.pu] ['ma.pu] ‘land’
b. ['loŋ.ko] ['loŋ.ko] ‘head, chief’
c. ['na.mun] [na.'mun] ‘foot’
d. ['lam.ŋen] [lam.'ŋen] ‘sibling (among women or among men and women)’

Febrés (1765), Augusta (1903), and Harmelink (1996) recognized the contribution of heavy syllables to stress.

Febrés (1765), Lenz (1895-1897), Echeverría (1964), Echeverría & Contreras (1965), Sadowsky et al. (2013) and Molineaux (2016) recognize variation in stress position even for a single lexical item (“non-stable stress”, according to Lenz).
RESEARCH QUESTIONS

1. What are the default and deviant stress patterns for disyllabic nouns, both overall and for different syllable structures (open-open (OO), open-closed (OC), closed-open (CO), and closed-closed (CC)) in a sample of spontaneous speech in Mapudungun?

2. How do different syntactic and pragmatic factors (position in the clause and informational status) in addition to syllable structure influence the stress position in disyllabic nouns?
1. What are the default and deviant stress patterns of Mapudungun disyllabic nouns, overall and by different syllable structure types?

The last syllable (S2) is the most frequent stress position, across speakers and most syllable structure types.
Not all syllable structure types are equally prone to ultimate stress.

There is a trend from CO to OC.
A single lexical item can be stressed on either syllable.

i) inter-subset variation

ii) intra-subset variation
2. How do different syntactic and pragmatic factors in addition to syllable structure influence the stress position in disyllabic nouns?

Stress position correlates only with information structure categories, namely theme, rheme, and focalization.

\[ p < 0.0001 \]
RESULTS
R.Q.2

No statistical relation was established between stress position and syntactic position.

\[ p = 0.706 \]

\[ p < 0.0001 \]
DISCUSSION

1. Stress alternation or “non-stable stress” is found in nouns having any syllable structure.

2. Final stress is the most frequent one and seems to be the default pattern.

3. However, “non-stable stress” should not be overlooked as meaningless.

4. Stress position -> Interplay of at least two principles:
   1. Overall tendency towards final stress;
   2. Attraction of stress by syllable weight.

4. Another principle is at stake: influence of information structure.
CASE 2:

“ORNAMENTAL” PARTICLE TA
(1) *Ta mu ta lleg-i-m-i ta pi-ke-e-n-u*
*ta LOC ta be.born-IND-2-SG ta say-HAB-INV-IND.1SG-3OBJ
*ta-ñi ñuke ka-fey.*
*ta-POSS.1SG mother and-MED*

‘In this (place) you were born, my mother told me too’.

(CC2015: JC)
ANTECEDENTS

Valdivia (1606): First grammar of the language.

Some Mapudungun particles (e.g., *ta*) have been described as “ornamental” (Valdivia 1606; Augusta 1903, *inter alia*).

Few other attempts to describe these particles have been made:

- *Ta* as an anaphoric pronoun or a dummy (Smeets 2008); new information marker, connective, and participate in prosodic structuring (Malvestitti 2002); assertive and emphatic particle (Zúñiga 2006).
- Usually taught as a non-verbal copula (connecting subject and subject complement).
THEORETICAL BACKGROUND

- Deixis and demonstratives:
  - Types, functions, grammaticalization paths (Diessel 1999), discourse usage (Mithun 1987).

- Grounding operations (Langacker 2002).

- Grammaticalization: sequential and progressive process (Diessel 1999; Lehmann 2002; Heine & Kuteva 2007; Hopper & Traugott 2008)
  - Processes involved (Heine & Kuteva 2007; Lehmann 2002)
  - Changes usually undergone by gramm. demonstratives (Diessel 1999): functional, syntactic, morphological, phonological.
OBJECTIVES

1. Describe the frequency and common collocations and syntactic position of the particle *ta*.

2. Describe the semantic and discursive functions of the particle.
   2.1 Test/Falsify the hypotheses put forth in the literature.
## RESULTS

<table>
<thead>
<tr>
<th></th>
<th>NC1900s</th>
<th>CC1990s</th>
<th>CC2015</th>
<th>IMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word tokens</td>
<td>16,202</td>
<td>15,904</td>
<td>51,503</td>
<td>83,609</td>
</tr>
<tr>
<td>Word types</td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
<td>%</td>
</tr>
<tr>
<td>ta</td>
<td>940</td>
<td>5.8</td>
<td>1,047</td>
<td>6.58</td>
</tr>
</tbody>
</table>

### Diagram: Number of files with a given % of ta

![Bar Chart](chart.png)
Dionisio ta-ñi chaw em, Mulato pi-nga-y.
D. ta-Poss.3 father deceased M. say-Pass-Ind.3
‘Dionisio’s deceased father was called Mulato’ (Relmuan 1997: 40).

How to arrange our life’. (CC2015: JK)

‘My mother is Manuela, my maternal grandmother, Kallfüray. My maternal
grandfather, he is Nawelman’. (Relmuan 1997: 27)

‘This little foreigner did grow up’ (Canio & Pozo 2013: 45)

‘I am indeed poor, your majesty, I will sure work to dress myself’. (C&P2013: 49)

‘In this (place) you were born, my mother told me too’. (CC2015: JK)
NP LEVEL

[N] **ta** (Poss) [N]

**Modifier**
- PRON DEM
- PERS PRON
- INDEF PRON
- N (Common/Proper)
- REL CL

**Head**
- N

CL LEVEL

**ta**

% of **ta** according to the pair of grammatical relations of the units around it

![Bar chart](chart.png)
Is *ta* emphatic?

Communicative prominence that signals a special force or insistence of the speaker about the content of the utterance (Mel’čuk 2001).

(26) JC: *Faw ti pu pichi-ke che fey ka iñche müte kim-la-fi-ñ*

here ti PL little-DISTR person MED and 1SG much know-NEG-OBJ.3-IND.1SG

(engün) *pichi-wentru-nge-lu.*

3.PL little-boy-be-NMLZ

‘JC: The kids here, I didn’t know them a lot, being a child myself’.

VL: *Mhm…*

JC: *Asi que fey femuechi tremü-n pu, lamngen.*

thus that MED that.way grow.up-IND1SG PRESUP sister

*Kañpüle trem-ün reke, fey... fantepu mew ta fewla lle-may elsewhere grow.up-IND1SG like MED nowadays LOC ta now EMPH-yes*

*ta fey müle-pa-tu-n ta-ñi lof mu. Welu ñi trem-ün, ta MED be-DEI-RE-IND.1SG ta-POSS.1SG reserve LOC but POSS.1SG grow.up-INF*

*trem-ün ta kañpüle ta iñche.*

grow.up-IND1SG ta elsewhere ta 1SG

‘JC: I grew up that way, sister. I kind of grew up elsewhere, then it was now that I moved here to live in my reserve. But my (process of) growing up, I did grow up elsewhere’. (CC2015: JK)
DISCUSSION

1. Particle *ta* is not ornamental.

2. Evolved into a multifunctional linking element.

3. Variable structural scope, variable bondedness, high paradigmatic variability -> low obligatoriness.

4. Its paradigmatic variability seems to be crucial to its function -> it is used to signal emphasis by combining repetitions with explicit marking of relation between two contiguous elements.
CASE 3:

TIME ADVERBIALS
Coexistence of two time systems:

a) Mapuche conceptual system: Associated to Mapuche cosmology. *Event-based* temporal system (Sinha et al. 2011). Many time intervals are organized in relation to cyclic schemas, which can incorporate a sequential or deictic perspective (Soto 2015; Becerra & Soto 2017).

*Tripan antü* ‘sun came up’ *Pürapan antü* ‘sun rose’

*Rupan antü* ‘sun passed’  
*Kon antü* ‘sun set’

...

b) Western conceptual system: Associated to a foreign culture. *Time-based* temporal system (Sinha et al. 2011), identifiable by common usage of exteriorized references (hours, and calendaric conventions).

*Eneru, fewreru, marsu, afüril, mayu,* ...

*Ora, minuto, semana,* ...
RESEARCH QUESTIONS

1. How are time adverbials from the two different systems used in Mapudungun?

2. How do time adverbials participate in the co-creation of particular contexts and participants’ identities?
Pukem, fewla ta müley pukem mu ka fey. Pukem mu ta konkey, inche ta allküpan welu inche ta müte füxa kuyfi tremnolu, allküpan dewma mayo ta konle fey taiñ mületun ta pukem pikey ta che, fey ta fewla afüy ta mayo ka mayoküyen fey junio mu koni doy füta pukem koni. (FK-1, monolingual)

‘The rainy season, now is the rainy season. The rainy season comes in, that's what I came to hear, but a long time ago when I had not grown up, I heard here that already when May has started we’ll be again in the rainy season, people often say; now May is over, the month of May, then June arrived, the big rainy season arrives.’.
‘What year did you arrive to this community?’

FA: *Regle mari aylla mu, regle mari aylla kayu kon-chi ener* 
seven ten nine LOC seven ten nine six enter-ADN January
aku-tu-n ta-ñi lelfün.
arrive-RE-IND.1SG LK-POSS.3 field

‘In seventy nine, seventy nine, I came back to my land (when) the six of January had already started’ (FA, bilingual elder).
• Both conceptual systems are used fluently, and people easily incorporate Western tokens in their discourse.
• However, their use does not necessarily mean that the (whole) Western conceptual system is invoked.

What happens when we find adverbials from both systems in the same sentence by a single interlocutor? As it was seen, this does not necessarily imply the disruption of the Mapuche context. However, its usage can be controversial and that’s why the Western tokens may be negotiated, graduated, and ritualized.
Kachilla ta konkülepaal chi pukem mew pingey tati, feymu ta feychi küyen mew junio pikey, feychi küyen mu ta ngaŋkerkefuy kachilla taiñ pu fütakeche kuyfi, fewla fey felewelay feychi dungu. (HP, young adult)

‘Wheat [is sown] when the rainy season comes, as it is called, so in the month of June they say, on this moon (month) I heard that our elders used to sow wheat long ago, now this matter is no longer like that’.

• Again, we find the Western token incorporated into the Mapuche discourse without disruption, and gradation towards the Mapuche system.
• “Junio” ‘June’ is the only Western adverbial used in the entire interview.
• However, its appearance is ritually negotiated.
• When asked, the speaker openly points out that these uses are inappropriate.
DISCUSSION

- Cultural appropriation of Spanish expressions, incorporated into the wealth of Mapuche elements, diminishing their Western value.

- It is not possible to speak of a total transformation of the index → it depends on the situations where it appears.

- This fact is the result of a long and complex cultural, linguistic and interactional history.

- However... variation from context to context: elders more likely to use Western adverbials, especially without reframing them as connected to the Mapuche world, whereas young speakers tend to avoid Western adverbial expressions.
CONCLUSIONS

• Reporting intra- and inter-speaker variation in grammatical description can improve not only the product (the description).
• It can also improve the process of understanding a particular grammar in the long run by allowing the discovery of linguistic patterns that otherwise would remain unknown.
• There are surely some tensions in this endeavour, for example, between time and goals (Rice 2006), conciseness and completeness (Nagy 2009), and community-shared forms and heterogeneity (Benor 2010).
• This practice has not only theoretical and descriptive, but also ethical motivations.

• However, we surely miss a lot of variation, so what can we do?
CONCLUSIONS: SOME IDEAS

• Working with interactional texts, hopefully different types of texts, and providing them.

In relation to case 1:
• When possible, providing recordings as well (even video), what is important to describe different phenomena.
• For written purposes, no absolute solution seems to be ideal: we miss something if we report either every single stress position or none). A mixed solution would be reporting stress in the most uncommon positions.

In relation to case 2:
• Illustrating discursive phenomena with long chunks (long sentences, adjacency pairs, etc.)

In relation to case 3:
• Reporting both language in use and “native” inventory.
• When possible, working with participants with different backgrounds.
• Reporting sociolinguistic and ethnographic information about participants and situations.
CHALTU MAY!

THANK YOU! / MERCI !
References


- Valdivia, L. de (1684 [1606]). *Arte y Gramatica General de la Lengva qve corre en todo el Reyno de Chile, con un Vocabulario y Confessionario*. Seville: Thomás Lopez de Haro.

Table 1: Information structure terminology adopted

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
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<tbody>
<tr>
<td>Theme</td>
<td>What the utterance is about.</td>
</tr>
<tr>
<td>Rheme</td>
<td>The assertion that is made by stating the utterance</td>
</tr>
<tr>
<td>Discourse Topic</td>
<td>The aboutness (Theme) of a stretch of discourse, usually continuous through more than one sentence.</td>
</tr>
<tr>
<td>Specifier</td>
<td>A chunk that is neither the Theme nor the Rheme of an utterance and adds usually facultative notions like adverbials, if-clauses and connectors.</td>
</tr>
<tr>
<td>Focalization</td>
<td>The cognitive prominence given to an element of discourse.</td>
</tr>
<tr>
<td>Given</td>
<td>A concept that is actively present in the hearer’s consciousness at a particular time, either because it has been already mentioned or because attention is accorded to it in context.</td>
</tr>
<tr>
<td>Accessible</td>
<td>A concept not actively but peripherally present in the hearer’s consciousness, given that it is related to an active concept.</td>
</tr>
<tr>
<td>New</td>
<td>A concept not actively nor peripherally present in the hearer’s consciousness.</td>
</tr>
<tr>
<td>(Un)markedness</td>
<td>A marked order expresses a single information structure configuration, while an unmarked order can be used to encode more than one information structure.</td>
</tr>
</tbody>
</table>
Table 9: Frequencies and percentages of *ta* in different syntactic positions

<table>
<thead>
<tr>
<th>Syntactic Position</th>
<th>Freq.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NP level (9%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRON</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>N_N</td>
<td>33</td>
<td>7</td>
</tr>
<tr>
<td>N_RelCl</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td><strong>Clause level (73%)</strong></td>
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<td></td>
</tr>
<tr>
<td>NP_NP</td>
<td>55</td>
<td>11</td>
</tr>
<tr>
<td>V_NP</td>
<td>279</td>
<td>56</td>
</tr>
<tr>
<td>_ti</td>
<td>28</td>
<td>6</td>
</tr>
</tbody>
</table>

**Inter-clausal level (18%)**

<table>
<thead>
<tr>
<th>Syntactic Position</th>
<th>Freq.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cl_Cl</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>Conj_Cl</td>
<td>68</td>
<td>13</td>
</tr>
<tr>
<td>_Cl</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>498</td>
<td>100</td>
</tr>
</tbody>
</table>

Figure 6: % of *ta* in different syntactic positions