Differential and non-differential object indexing in Mapudungun

1. Introduction

1.1. The language

- Mapudungun (*mapu* 'land', *dungun* 'speak, speech') = the language of the Mapuche (Chile, Argentina): unclassified, with possible links to Arawakan (Díaz-Fernández 2011)
- ISO-code 693-3: *arn*; Glottolog: *mapu1245*
- https://en.wikipedia.org/wiki/Mapuche_language
- https://mapudungunelhablamapuche.cl/

1.2. Typological micro-profile

- Simple phonology: 6 vowels, 22 consonants (including 6 approximants); obsolescent distinction between interdental and dento-alveolar consonants; no phonemic tone; stress largely predictable from syllable structure, which is moderately complex (Maddieson 2013): $(C_1)V(C_2)$.
- Morphology: almost exclusively suffixing; relatively simple nominal structures (with compounding) but polysynthetic verbs (compound stems, nominal incorporation, NP verbalization); no flexivity, concatenative affixation, a handful of portmanteaus; no gender, no case, three numbers (SG, DU, PL).
- Syntax: dependent-marking at NP level, head-marking at clause level; constituent order VS and SVO (but S+O can each be agentive or patientive, Zúñiga 2019); agent-voice (direct verbs) vs. patient-voice clauses (inverse verbs); SBJ markers are neutrally aligned.

2. Differential object indexing: Formal aspects

- The rightmost affixal slots of the verbal complex:

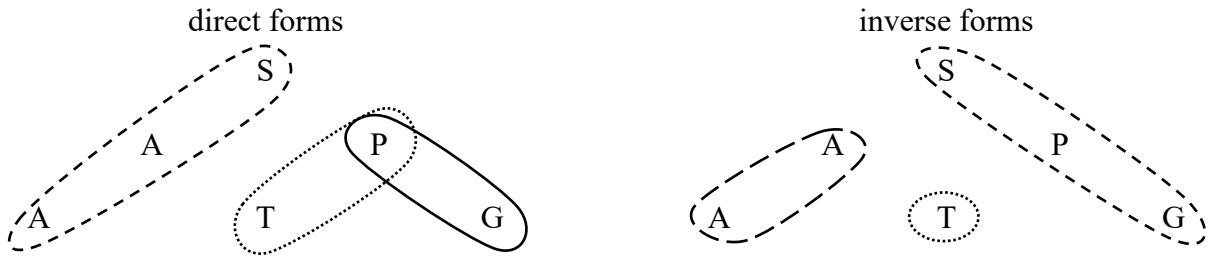| (1)	Finite:	…(-3.OBJ:P/INV-)	MOOD-SBJ.PERSON-SBJ.NUMBER	(-3.OBJ:A)
	Nonfinite:	…(-OBJ:P/INV-)	NFIN	(-3.OBJ:A)

- Mapudungun verbs mark 0, 1, or 2 persons. Finite verbs show all three options:

(2)	a. *Mawün-i.*	rain-IND[3]	'It rained.'
	b. *Pe-i-m-i.*	see-IND-2-SG	'You (SG) saw (it/him/her/them).'
	c. *Pe-fi-i-m-i.*	see-3.OBJ-IND-2-SG	'You (SG) saw it/him/her/them.'
	d. *Elu-fi-i-m-i.*	give-3.OBJ-IND-2-SG	'You (SG) gave it/him/her/them to it/him/her/them.'

· Nonfinite verbs mark only 0 or 1 persons:

(3) a. *mawün̲-n*   rain-NFIN   'rain(ing)'
     b. *pe-n*   see-NFIN   'see(ing) (it/him/her/them)'
     c. *pe-**fi**-n* see-3.OBJ-NFIN   'see(ing) it/him/her/them'
     d. *elu-**fi**-n* give-3.OBJ-NFIN   'giving it/him/her/them to it/him/her/them'

Figure 1. Indexing alignment patterns (finite Vs, 3rd person)

3. Differential object indexing: Functional aspects

3.1.   Semantic and pragmatic factors (Zúñiga 2010; Zúñiga & Herdeg 2010)

· Variation with labile (4) and monotransitive (5)–(6) verbs:

(4) a. *pe-pa-tu-i*   *tañi*   *pu*   *che*
        see-CIS-again-IND[3] 3.PSR   PL   person
        'He saw his people again here.' (Salas 2006: 245)

     b. *pe-pu-**fi**-i*   *chi*   *fütra*   *weda*   *che*
        see-TRANS-3.OBJ-IND[3]   ART   old   evil   person
        'He saw the old, evil person there.' (Salas 2006: 211)

(5) a. *l̲angüm-i*   *ñi*   *ñuke*
        kill-IND[3]   3.PSR   mother
        'He killed his mother.' (Salas 2006: 260)

     b. *l̲angüm-pu-**fi**-i*   *tachi*   *ngen̲-nge-lu*   *fey*   *mew*
        kill-TRANS-3.OBJ-IND[3]   ART   master-be-PTCP   DEM   POSTP
        'He killed [the demons'] master (lit. the one being a master) there.' (Salas 2006: 211)

(6) *feymew* *el-i*   *tañi*   *kure* *ka* *rüngal-me-**fi**-i*   *eltun*   *mew*
     then   have.funeral.for-IND[3] 3.PSR wife   and   bury-AND-3.OBJ-IND[3]   tomb   POSTP
     'Then he had a funeral for his wife and went there to bury her in a tomb.' (Salas 2006: 239)

Table 1. Semantic/pragmatic factors: P argument in the ∅/-*fi* opposition in 1/2/3→3 clauses[1]

	[±HUM]	[±DEF]	[±GIVEN]	[±ACCESS]	[±IMPORT]
-∅ (50)	7–**43**	29–21	22–28	16–**34**	14–**36**
-*fi* (39)	**25**–14	**35**–4	**26**–13	20–19	**23**–13

[±ACCESS] is Givón's (1994) referential distance measure (previous clauses)
[±IMPORT] is Givón's (1994) topic persistence measure (following clauses)

- – Inaccessible and non-important non-human P's tend to be unmarked
- – Definite, given (and important) human P's tend to trigger -*fi*
  - + Definite humans almost always trigger it (23::25)
  - + Indefinite non-humans almost never trigger it (1::14)

∴ None of the factors is a sufficient or necessary condition (but they are with proper names and anaphora).[2]

3.2. Morphological factors

Table 2. Object indexing patterns[3]

	finite (IND)	nonfinite
1/2/3→3	direct: ∅ or -*fi*$_1$-	
3→1/2/3	inverse: -*mew*	
1SG→2SG	*-e-i-i-u* -INV-IND-1-DU	*-fi*$_2$- -OBJ-
1→2 (rest)	*-w-i-i-n* -REFL-IND-1-PL	*(-w)-fi*$_2$- -REFL*-OBJ-
2SG→1SG	*-e-n* -INV-1SG.IND	*-fi*$_2$- -OBJ-
2→1 (rest)	*-mu*-Z -INV-{1$_i$}	*(-mu)-fi*$_2$- -INV-OBJ-

∴ *fey* 'MED.DEM' has turned into two different verbal affixes when (further) grammaticalized:
  - + -*fi*$_1$ with mixed and non-local (1/2/3↔3) interactions (whether finite or nonfinite Vs), and
  - + -*fi*$_2$ with local (1/2↔1/2) interactions (only nonfinite Vs)

3.3. Syntactic factors

· I have not found any variation with (finite) underived ditransitives, either in elicitation or spontaneous interaction; in the speech of all my informants (from three different Chilean dialects), underived ditransitivity always triggers -*fi*.

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[1] Based on seven narrative texts (five from Augusta 1910, one from Coña 1930, and one from my own field recordings made in June 2010).

[2] The interested reader is also referred to a non-stochastic account in Golluscio (2010) and an intriguing —but probably erroneous— analysis in Smeets (2008: 154).

[3] Z represents the different 1st-person-indicative markers: *-n* '1SG.IND', *-i-i-u* 'IND-1-DU', *-i-i-n* 'IND-1-PL'.

(7) a. *küla-ke*   *elu-**fi**-n*   *mansana*
three-NSG   give-3.OBJ-1SG.IND   apple
'I gave them three apples each / an apple to each of them three.' (Smeets 2008: 112)

     b. *elu-düngu-a-**fi**-n*
give-matter-FUT-3.OBJ-1SG.IND
'I will communicate the matter to him/her/them.' (Augusta 1916: 39)

(8) a. *ka-ke-lu*   *pi-la-i*   *tañi*   *elu-a-**fi**-el*
other-NSG-PTCP   say-NEG-IND[3]   3.PSR   give-FUT-3.OBJ-NFIN
'They did not want (lit. did not say) to give to others.' (Smeets 2008: 410)

     b. *feychi*   *elu-el*   *ofisha*   *kom*   *tüfeychi*   *ilo*   *nü-ke-i*
ART   give-NFIN   sheep   all   DEM   meat   take-HAB-IND[3]
'The one to whom the lamb has been given takes the rest of the meat.' (Augusta 1910 1.11)

·   Derived mono- and di-transitives show variation. Monotransitive causatives pattern with underived monotransitives — they show DOI (cf. CAUS in (5)):

(9) a. *apüm-i*   *pülku*
finish.CAUS-IND[3]   wine
'S/he finished the wine.' (Salas 2006: 171; intransitive *af-* 'finish')

     b. *are-m-i*   *ko*
heat-CAUS-IND[3]   water
'S/he heated water.' (Golluscio 2007: 217)

     c. *küdaw-el-**fi**-n*   *Pedro*
work-CAUS-3.OBJ-1SG.IND   P.
'I made Pedro work.' (Golluscio 2007: 225)

·   I have found only very little variation with applicatives; we typically find *-fi* there.

(10) a. *aku-lu*   *engün*   *ngüma-l-**fi**-i*   *ka*   *feypi-**fi**-i*   *engün:…*
arrive-PTCP   3PL   cry-APPL-3.OBJ-IND[3]   and   tell-3.OBJ-IND[3]   3PL
'When they (PL) arrived, he cried for them and told them: …' (Salas 2006: 260)

     b. *entu-ñma-**fi**-i*   *tañi*   *ekulluw-küle-mum*   *pontro*
remove-APPL-3.OBJ-IND[3]   3.PSR   cover.oneself-PROG-NMLZ   poncho
'He took away from her the poncho she was covering herself with.' (Salas 2006: 262)

Table 3. Count in 16 narrative texts
in Salas (2006) (3rd person, active)

	DIR.FIN	DIR.NFIN	Semantic Role	
-ñma	6::7	**1**::7 (*-lu*)	Maleficiary, animate Source	Possessor, "Affectee"
-l	14::16	2::16 (*-el, -lu*)	Beneficiary, animate Goal	
-tu	10::12	1+**1**::12 (*-am*)	animate Goal, Stimulus, CoS-Patient	
-ye	2::2	—	Motion Comitative, Topic of Speech/Thought	

(11) a. *feymew   tüfachi   weche   wentru   tripa-rke-i*   […]
      then   this   young   man   exit-REP-IND[3]
      witranma-me-a-lu   tañi   kiñe küme   wenüy
      visit-AND-FUT-PTCP   3.PSR   one   good   friend
      'Then, they say, this young man went out […], in order to visit a good friend of his.'
      (Salas 2006: 307)

     b. *fey tichi kura   lawen-tu-am   tachi   kutran*
        DEM ART stone   medicine-VBLZ-NFIN   ART   sick
        'That one was the stone [used] for treating the sick [man].' (Salas 2006: 214)

(12) *anü-ñma-nie-i-m-i   kiñe   makuñ*
    sit.down-APPL-ASP-IND-2-SG   one   blanket
    'You are sitting on a blanket.' (Augusta 1916: 10)

Golluscio (2010: 722) reports variation in the Argentinean variety of her informant(s) (possibly related to "the speaker's perception of the topicality of the recipient"):

(13) a. *kicha-l-n   ropa   tañi   püñeñ*
      wash-APPL-1SG.IND   clothes 1SG.PSR   child.of.woman
      'I (F) washed my child's clothes.'
     b. *kicha-l-**fi**-n   ropa   tañi   püñeñ*
        wash-APPL-3.OBJ-1SG.IND   clothes 1SG.PSR   child.of.woman
        'I (F) washed clothes for my child.'

4. (Interim) conclusions

a) There are two suffixes *-fi* that mark objects high on the Silversteinian nominal hierarchy. The marker occurring with 3rd-person objects shows functionally motivated variation: definite humans tend to trigger it while indefinite inanimates tend not to do so. The marker occurring with 1st/2nd-person objects in nonfinite forms is obligatory.

b) The variation observed with 3rd-person objects is sensitive to both predicate valency and morphological status:
– underived ditransitives show no variation;
– (monotransitive) causatives seem to pattern (roughly?) like underived monotransitives; and
– applicatives show only little variation: at least in Central Mapudungun, they tend to obligatorily take the object marker (except with inanimate objects).

Abbreviations

A agent-like argument of transitive predicate, AND andative, APPL applicative, ART article, CAUS causative, CIS cislocative, DEF definite, DEM demonstrative, DU dual, FUT future, HAB habitual, HUM human, IND indicative, INV inverse, MED medial, NEG negation, NFIN non-finite, NSG non-singular, OBJ object, P patient-like argument of transitive predicate, PL plural, POSTP postposition, PROG progressive, PSR possessor, PTCP participle, REFL reflexive, REP reportative, SG singular, SBJ subject, TRANS translocative, VBLZ verbalizer

1, 2, 3   grammatical persons

x→y   *x* acts on *y*

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