Relative clause formation in Lule (Argentine Chaco)

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1 Introduction.

Lule was spoken by a semi-nomadic people who lived in the Gran Chaco between the Pilcomayo river and the Andean foothills of northwestern Argentina. It is an extinct language, which was also spoken by other groups of the present-day Argentine provinces of Tucumán and Santiago del Estero. Virtually all of our documentation of Lule comes from the Sardinian Jesuit missionary Antonio Maccioni (1688-1753) in his *Arte y vocabulario de la lengua lule y tonocoté,* published under the name Machoni in Madrid in 1732. Mentions of Lule disappear from the historical record after the expulsion of the Jesuits in 1776. We may surmise that the Lule language lost its last speakers sometime in the course of the early 19th century.

2 Genealogical affiliation and philological challenges.

The Lule language is generally considered to be genealogically related to the Vilela language, forming a Lule-Vilela family, but it remains possible that the lexical similarities are due to contact rather than to shared ancestry. The language described in Machoni (1732) provides interesting challenges for the study of linguistic diversity in the Chaco area, because it is typologically rather distinct from the other known Chaco languages as well as from neighboring Andean languages, and because we have to rely almost entirely on Maccioni's examples and linguistic abilities in trying to reconstruct its grammar in modern terms. The retranscription and morphological analysis in the following sections is based on the comprehensive grammar of Lule, which is being written by the authors of this paper. For the abbreviations used, see the note at the bottom of p. 6.

3.1 Relative clause formation in Machoni's (1732) grammar section.

There are 18 examples that can be interpreted as relative clauses in Machoni's (1732) grammar section, so it is actually possible to present that corpus here. Each example is presented in five lines, so no information is lost: the first line is the sentence in the original spelling, the second line is Maccioni's translation or gloss in Spanish (with archaic spellings normalized to modern Spanish practice), the third line, which also carries the example number, is our phonemic spelling, the fourth line is the word by word and morphological analysis, and the fifth line is our fairly litteral translation into English. On that line, there is also a number in parentheses, which the page number in Machoni's (1732) grammar section. One can distinguish four types of relative clause formation strategies, sections 3.2 through 3.5.

3.2 Agent nominalizer *-ton*.

One type of construction involves the agent nominalizer *-ton,* as in examples (1) through (8):

pelè in lè otiqueyuton, *vecinèp*
el indio que trabajó ayer murió
(1) pele   inle   wotikeyu-ton   wetsi[-i]   ne-p
     man   yesterday   work-NMLZ   die[-THEM]   P.REC.VIS-3sSBJ
     'the man who worked yesterday died' (56)

pelè in lè otiqueyuton, *vyetip*
el indio que trabajó ayer murió
(2) pele   inle   wotikeyu-ton   uye-ti-p
     man   yesterday   work-NMLZ   NEG-do-3sSBJ
     'the man who worked yesterday died (lit. was no more)' (56)

pelè in lè otiqueyuton, vecip
el indio que trabajó ayer murió
(3)　　*pele　inle　　　wotikeyu-ton　wetsi-p*
　　　　man　yesterday　work-NMLZ　die-3sSBJ
　　　　'the man who worked yesterday is dead' (56)

ecitòn zotà Dios meticant
Dios llevará al Cielo al que fuere bueno
(4)　　*etsi-ton　　　　　tso=ta　　　Dios　　　metika-n-t*
　　　　be.good-NMLZ　heaven=LOC　Dios　　　take-FUT-3sSBJ
　　　　'God will take the one who is good to heaven' (56)

yuisinis yetòn Petro cumuepinèp
he oído al que dize, o dixo que Pedro se casó
(5)　　*iwis-i　　　ni-s　　　　　　ye-ton　　　Petro　　kumue-p-i　　　　　ne-p*
　　　　hear-THEM　P.REC.VIS-1sSBJ　say-NMLZ　Peter　　get.married.3SBJ-??　P.REC.VIS-3sSBJ
　　　　'I heard the one who said/says that Peter got married' (56)

yuisinis yetòn Petro cumuèp
he oído al que dize, o dixo que Pedro se casó
(6)　　*iwis-i　　　ni-s　　　　　　ye-ton　　　Petro　　kumue-p*
　　　　hear-THEM　P.REC.VIS-1sSBJ　say-NMLZ　Peter　　get.married-3sSBJ
　　　　'I heard the one who said/says that Peter is getting married' (56)

quys yepnicsintòn
yo tengo la obligación de enseñar
(7)　　*kis　　　yepniks-in-ton*
　　　　1sPRO　teach-FUT-NMLZ
　　　　'I am one who will teach' (56)

pelè quis tacevinstòn tià vyè
el indio que tengo de castigar no está aquí
(8)　　*pele　kis　　　tak-tseu-in-s-ton　　　　tia　　uye*
　　　　man　1sPRO　INS-punish-FUT-1sSBJ-NMLZ　here　NEG
　　　　'the man I will punish is not here' (64)

3.3 Agent nominalizer *-ton* AND the anaphoric and resumptive pronoun *mima*.

Another type of construction involves the agent nominalizer *-ton,* as well as the anaphoric and resumptive pronoun *mima*, as in example (9). There is only one example of this construction in the corpus. We will deal with the clause translated as 'what God commands' in section 4.3 in this presentation, let us ignore it for now.

Dios amaicitòn mimà tit vsa Dios nequequèsp
el que ama a Dios guarda sus mandamientos o lo que Dios manda
(9)　　*Dios　amaitsi-ton　mima　　　ti-t　　　usa　　Dios　　ne-kekes-p*
　　　　God　love-NMLZ　ANA.DIST　do-3sSBJ　what　God　　INS-command-3sSBJ
　　　　'the one who loves God, that one observes what God commands' (64)

3.4 Anaphoric and resumptive pronoun *mima* only

Another type involves no nominalization, but only the anaphoric and resumptive pronoun *mima*, as in examples (10) through (15). The pronoun *mima* can be optional, as in examples (10) and (11).

pelè Dios alapip, zotà cant, o mimà zotà caànt
el hombre que Dios escogió, irá al Cielo

(10)   *pele*   *Dios*   *alap-ip*   *(mima)*   *tso=ta*   *ka-n-t*
        man   God   choose-3sSBJ   (ANA.DIST)   heaven=LOC   go-FUT-3sSBJ
        'the man God chooses, (that one) will go to heaven' (64)

pelè Dios alapinèp, zotà cant, o mimà zotà caànt
el hombre que Dios escogió, irá al Cielo

(11)   *pele*   *Dios*   *alap-i*   *ne-p*   *(mima)*   *tso=ta*   *ka-n-t*
        man   God   choose-THEM   P.REC.VIS-3sSBJ   (ANA.DIST)   heaven=LOC   go-FUT-3sSBJ
        'the man God chose, (that one) will go to heaven' (640

tanta quis cayç mimà poòp
el pan que estoy comiendo o que como, este es blanco

(12)   *tanta*   *kis*   *kai-ts*   *mima*   *p'o-p*
        bread   1sPRO   eat-1sSBJ   ANA.DIST   be.white-3sSBJ
        'the bread I am eating, that one is white' (65)

talà quis ceinicè, mimà palap
el vestido que me diste es nuevo

(13)   *tala*   *kis*   *tse-i*   *ni-tse*   *mima*   *palʔa-p*
        dress   1sPRO   give-THEM   P.REC.VIS-2sSBJ   ANA.DIST   be.new-3sSBJ
        'the dress you gave me, that one is new' (65)

talà quis ceinicè, mimà palatòn
el vestido que me diste es nuevo

(14)   *tala*   *kis*   *tse-i*   *ni-tse*   *mima*   *palʔa-ton*
        dress   1sPRO   give-THEM   P.REC.VIS-2sSBJ   ANA.DIST   be.new-NMLZ
        'the dress you gave me, that one is a new one' (65)

saycç meticapssè, mimà saycsnis vyè
la carta que has de llevar o llevarás aun no está escrita

(15)   *s-aiks-∅*   *metika-p-tse*   *mima*   *s-aiks[-i]*   *ni-s*   *uye*
        INS-write-NMLZ   carry-FUT-2sSBJ   ANA.DIST   INS-write[-THEM]   P.REC.VIS-1sSBJ   NEG
        'the letter you will carry, that one I have not written' (65)

3.5 No relativization marking at all.

Finally, the grammar section contains three examples (16-18) of null head relativization without either the agent nominalizer *-ton*, nor the resumptive pronoun *mima*.

Dios yelem ti
fac secundum legem Dei (Latin), *haz lo que Dios dice o manda*

(16)   *Dios*   *yelem[-p]*   *ti[-i]*
        God   command[-3sSBJ]   do[-THEM]
        'do what God commands!' (78)

Dios olómp ti
fac secundum legem Dei (Latin), *haz lo que Dios dice o manda*

(17)   *Dios*   *olom-p*   *ti[-i]*
        God   speak-3sSBJ   do[-THEM]
        'do what God says!' (78)

Dios nequequesp ti
fac secundum legem Dei (Latin), *haz lo que Dios dice o manda*

(18)   *Dios*   *ne-kekes-p*   *ti[-i]*
        God   INS-command-3sSBJ   do[-THEM]
        'do what God commands!' (78)

3.6 Discussion.

The following is a table of morphosyntactic features of the 18 examples presented so far:

Example(s):	Overt head sentence-initially:	Head is subject of the main clause:	NP position relativized:	Strategy:
(1-3, 7)	yes	yes	Subject	NMLZ on verb
(4-6)	no	no	Subject	NMLZ on verb
(8)	yes	yes	Object	NMLZ on verb
(9)	no	yes	Subject	NMLZ on verb AND *mima*
(10-11)	yes	yes	Object	*mima* OR no marking
(12-14)	yes	yes	Object	*mima*
(15)	yes	no	Object	*mima*
(16-18)	no	no	Object	no marking

Tentative conclusions regarding these 18 examples are the following. We suggest that the nominalizer is the preferred strategy when the NP position relativized is Subject. Example (8) is the only counterexample to this, but then example (8) is suspicious in any case, because it is an example with the nominalizer following a verb inflected for subject person, so it is hard to know what to make of this. If sentence (8) actually contained a passive, and could be translated as 'the man who will be punished by me…', it would no longer be a counterexample, but then of course we would have to argue that the 1st person subject inflection on 'punish' is actually something else.

We also suggest that *mima* is the preferred strategy when the NP position relativized is Object, unless, as shown in example (9), there is no overt head sentence-initially and the head is the subject of the main clause, in which case the nominalizer is also present.

It is hard to draw any conclusions from the 'no marking' strategy, illustrated by (16-18) because these three sentences are close variants of each other, clearly considered just one example by Maccioni. Let us note for now that sentence (18) bears a similarity to part of sentence (9), and we will return to this point in section 4.3.

4.1 Relative clause formation in Machoni's (1732) texts section.

We counted 33 sentences that can be interpreted as containing relative clauses in Machoni's (1732) texts section. Only a few examples will be provided here, as the texts are quite repetitive. The texts, separately paginated, are all parts of 18th century Catholic Church doctrine, including prayers, and two catechisms. Except for the second catechism, no Spanish translation is given by Maccioni, which shows that he expected the Jesuits who were to use his book to be familiar with the texts. So in the examples below, we do not provide a Spanish gloss.

4.2 Examples of relative clause formation in Machoni's (1732) texts section.

The texts section shows, overwhelmingly, the relative clause strategy with the agent nominalizer *-to(n)*, (examples 19-21) and also the strategy with no marking at all (examples 22-23), but significantly, we think, no example of the resumptive pronoun *mima* at all.

Dios ué ayopép Reyna Umuè auei titó,
(19) *Dios   we   ayo-pe-p   Reyna   Umue   ʔawei   ti-to*
     God   2sPRO   greet-FUT-3sSBJ   queen   mother   compassion   have-NMLZ
     'may God greet you, Queen (and) Mother who has compassion' (Salve Regina prayer)

Yaupecelé yauptó uyáp cepssé.
(20) *yaʔupe-tse=le   yaʔu-p-to   uya-p   tse-p-tse*
     village-2sPOSS=LOC   walk-3sSBJ-NMLZ   house-3sPOSS   give-FUT-2sSBJ
     'you give his house (to) the traveller (lit. one who walks to your village)' (Works of Mercy)

Uaton, ueciton tayule Christianospan Dios

(21) *wato-[to]n*   *wetsi-ton*   *taʔyule*   *Christianos-pan*   *Dios*
     live- NMLZ   die- NMLZ   BEN   Christians-COLL   God

uasipssé.
     waʔas-ip-tse
     pray-FUT-2sSBJ
     'you will pray to God for Christians who are living (and) who are dead' (Works of Mercy)

lopsauy eycupticén, mequequetó uá ticazpan

(22) *lopsawi[-i]*   *eikupti-tsen*   *meke[•ke]-to*   *wa*   *tik-as-pan*
     forgive[-THEM]   sin-1pPOSS   be.like[•RED]-NMLZ   1pPRO   INS-get.angry-3pSBJ

lopsáucén:
     lopsawi-tsen
     forgive-1pSBJ
     'forgive our sins as we forgive those who offend us (lit. make us angry)' (Lord's Prayer)

Tamócx Dios Pé, zó, há tiatép;

(23) *takmoks-ts*   *Dios*   *Pe*   *tso*   *ʔa*   *ti[-i]*   *ate-p*
     believe-1sSBJ   God   Father   heaven   earth   make[-THEM]   P.REM-3sSBJ
     'I believe in God the Father, who made heaven (and) earth' (Credo)

     But additionally, there is quite a common construction not discussed in the grammar, with the pronoun *usa* 'what' i.e. 'that which', which in the grammar occurs only once, in sentence (9) above.   Examples in the texts are quite common, and include (24-25):

Usa Christiano tamocxynt ysyauomp locuép

(24) *usa*   *Christiano*   *takmoks-in-t*   *is*   *yawon-p*   *lokwe-p*
     what   Christian   believe-FUT-3sSBJ   hand   be.all-3sSBJ   be.four-3sSBJ
     'the things that the Christian will believe (are) fourteen' (Articles of the Faith)

Pelé eciptó zó cent ussiqué, usá Dios

(25) *pele*   *etsi-p-to*   *tso*   *tse-n-t*   *usike*   *usa*   *Dios*
     man   be.good-3sSBJ-NMLZ   heaven   give-FUT-3sSBJ   because   what   God

nequequesp tyatepán;
     ne-kekes-p   *ti[-i]*   *ate-pan*
     INS-command-3sSBJ   do[-THEM]   P.REM-3pSBJ
     'He will give heaven (to) the man who is good, because they have done what God commands'
     (Articles of the Faith)

4.3 Discussion.

Now, what one notices in the texts section, is more unusual syntax, possibly calqued on Spanish or maybe on Latin. For example, in (21), the benefactive postposition *taʔyule* 'for', follows *Christianos*, although everywhere else, Lule postpositions follow their object. Since the language tends to be SOV in basic constituent order, the initial 'I believe' in example (23), must follow the word order of the Latin 'credo'.

     Another unusual thing, occurring often in the texts is the nominalizer following an inflected verb, as in *yaʔu-p-to* in example (20) and *etsi-p-to* in example (25). This also occurs in the grammar, as shown in example (8), but it is much less common there.

     It is also suspicious that there are no examples of the resumptive pronoun *mima* in the texts. This is presumably because a resumptive pronoun sounds clumsy or colloquial in Spanish (and in Latin). Look again at

examples (10-15). It is possible that Maccioni did not use *mima* in the texts to improve on their style. After all, these are religious texts, and should not sound colloquial.

Finally, it is also suspicious that there is only one example of *usa* 'what, that which' in the grammar (example 9), although this *usa* is very common in the texts; two examples are (24) and (25). It is also instructive to compare *usa Dios nekekesp ti* 'do what God commands' in example (25), with *Dios nekekesp ti* 'do what God commands', which is example (18) from the grammar. So one wonders if this *usa* is really necessary. We suggest that this *usa* is a calque on Spanish 'lo que'. In the grammar, *usa* is simply the interrogative pronoun 'what?'. We suggest, then, that the portion *usa Dios nekekesp* in example (9), is taken out of the texts, although it is preceded by a portion containing *mima*, which sounds more colloquial. Example (9) is interesting then, as it shows characteristics of a more natural syntax evidenced in the grammar, as well as a characteristic of the more stilted syntax found in the texts.

Our conclusion is that in general the syntax (and maybe the morphology) of Machoni's (1732) religious texts is more stilted and somewhat less reliable than the examples in the grammar, presumably because of a requirement that religious texts must follow the Spanish (or Latin) models closely.

5 General conclusions.

We suggest that it is possible to draw tentative conclusions from this very small corpus. Following the terminology of WALS (Comrie and Kuteva 2013a, b), the most genuine strategies for relative clause construction in Lule are likely to be the gap strategy, normally with a nominalizer at the end of the clause, and the non-reduction strategy, in the guise of the paratactic relative clause, with a resumptive pronoun. We noted that there are also relative clauses with the head *usa*, but since this only occurs in the texts, it might well be the result of a calque on Spanish, as suggested in section 4.3. More discussion of how well the types of relativization strategies of Lule fit into the typology of South America will be provided in the presentation following this one.

Let us conclude with some observations regarding the validity of philological interpretations of early missionary writings of extinct languages. Needless to say, the model of Latin grammar is always prevalent among the early missionaries, but beyond that, one can detect innovative ideas, indigenous voices, and, crucially for this presentation, places where the missionary accurately observed actual language, and places where he thought it was better to calque the language on Spanish (or Latin) models. We suggested that this happened in the Lule texts, but less so in the Lule grammar. The moral of all this is, of course, that when studying missionary grammars, we need to make careful comparisons between examples in the grammatical discussions and the texts. We may not assume, as we may safely in later documentary traditions, that the texts represent a more natural language than examples in the grammatical discussions.

Abbreviations used follow the Leipzig Glossing Rules, with the addition of: ANA 'anaphoric'; COLL 'collective'; P.REC.VIS 'recent visual past'; P.REM 'remote past'; PRO, 'independent pronoun'; •RED 'reduplicative process, meaning uncertain', and THEM 'thematic' (suffixed to imperatives and to the V1 of a serial verb construction).

References

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