

Reclaiming SIL/Wycliffe Bibles for Linguistic Research

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Introduction

William Cameron Townsend (1896–1982)



The first SIL in 1934



José Chicol, the original Kaqchikel bible translator



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- Wycliffe had done about 700 of these.

Why Wycliffe bibles (NT) are a useful corpus

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- The translations are extremely free.
- Parables are perfect for studying discourse.
- It comes extremely well-indexed.
- (Blessing/Curse) Wycliffe/SIL are little nutty when it comes to deciding what counts as a "language".

Why Wycliffe bibles (NT) are a useful corpus

Wycliffe has made no less than 5 Kaqchikel bibles!

And he was transfigured before them.

y se transfiguró delante de ellos.

And he was transfigured before them.

y se transfiguró delante de ellos.

Santa Maria de Jesus

Y ri Jesus xc'axtaj rutzub'al chiquivach.

Western

Y ri Jesus xjalatej c'a ruwachbel chuquivach ri ye oxi rudiscipulos.

Central

Y ri Jesus xjalatej c'a ruvech chiquivech ri e oxi' rutijoxela'.

Eastern

Y ri Jesus xjalatüj c'a ruvüch chiquivüch ri ye oxi' rachibila'.

Southwestern

Y re Jesus xjalataj rutzubal chiquivach re je oxe' ru-discipulos re'.

Why Wycliffe bibles (NT) are NOT a useful corpus

Their alphabets are GHASTLY.

Building the Corpus



Scripture Resources

Select Language

Powered by Google™ Translate

Country

All

[Argentina](#)

[Aruba](#)

[Australia](#)

[Azerbaijan](#)

[Belize](#)

[Bolivia](#)

[Brazil](#)

[Canada](#)

[Chile](#)

[Colombia](#)

[Costa Rica](#)

[Dominica](#)

Beginning with: [A](#) [B](#) [C](#) [D](#) [E](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [W](#) [X](#) [Y](#) [Z](#) [\[All\]](#)

Language Name: ▼

Alternate Language Names:

Language Code:

Country

Language Name: ▼	Alternate Language Names:	Language Code:	Country
Achí de Cubulco		acc	Guatemala
Achí, Rabinal	Rabinal K'iche', Rabinal Achí	acr <i>(alfabeto nuevo)</i>	Guatemala
Achí, Rabinal	Rabinal K'iche', Rabinal Achí	acr <i>(alfabeto tradicional)</i>	Guatemala
Achuar-Shiwar	Achual, Achuale, Achuar, Achuara, Jivaro, Maina	acu	Peru
Aguaruna	Aguajun, Ahuajun, Awajún	agr	Peru
Ajyinka Apurucayali	Ajyéninka, Apurucayali Campa, Ashaninka, Ashéninka Apurucayali, Axininka Campa, Campa	cpc	Peru
Akateko	Acatec, Acateco, Conob, San Miguel Acatán Kanjobal, Western Kanjobal, Western Q'anjob'al	knj	Guatemala
Akawaio	Acahuayo, Acewaio, Akawai, Ingariko	ake	Brazil, Venezuela

man c'a taxibij ta awi' chi yac'ule' riq'ui ri María ri ac'utun chic riche (rixin) chi ntoc awixjayil. Wacami petenak chic alaníc chrij ruma ya ri Lok'olaj Espiritu xka pa ruwi!.^o ²¹Ri ac'al c'a ri xtralaj ri María, ti c'ajol (ala'), y JESÚS c'a rubi' xtaya', ruma ya Riya' ri xquecolo ri winek chupan ri quimac.^p

²²Ronojel c'a re' xc'ulwachitej riche (rixin) chi can nibanatej ri xbix ruma ri Dios chare ri profeta Isafas ri jun chique ri xek'alajsan ri ruch'abel ri Dios ojer ca, tek xubij:

²³Tiwetamaj c'a chi xtic'oje' jun ri c'a k'opoj na y xtic'oje' jun ral, astape' man c'o ta riq'ui achi.

Y can xtralaj na wi jun ac'al, ti c'ajol (ala'), ri xtubini'aj Emanuel. Re bi'aj re' can ntel c'a chi tzij chi ri Dios c'o kiqu'ui.^q

²⁴Tek xc'astej c'a ri José, can xuben wi achi'el ri xbix chare ruma ri ángel riche (rixin) ri Ajaf. Riya' can xuc'om na wi ri María riche (rixin) chi xoc rixjayil. ²⁵Pero ri José majun xunek ta ri María c'a ya tek alaxnek chic na ri nabey ral.^r Y tek xalex ri ac'al, JESÚS ri rubi' xuya'.

Tek ri achi'a' ri c'o quetamabel chiquij ri ch'umila' xquiya' ruk'ij ri Jesús

2 ¹Ri Jesús' xalex c'a pa tinamit Belén, ri tinamit ri c'o pa rucuenta ri Judea. Tek xalex ri Jesús, ya c'a ri Herodes ri rey, y yac'ari' tek jun ca'i' achi'a' ri c'o quetamabel chiquij ri ch'umila', xe'apon pa Jerusalem. Ri achi'a' ri', pa relebel k'ij ye petenak wi,^t ²y xquic'utuj c'a chique ri winek: ¿Acuchi (achique) c'o wi ri ac'al ri qui-Rey ri israelitas ri xa c'a xalex? Ri ruch'umil^u katz'eton pe riyoj c'a quela' pa relebel k'ij, y xojpe chuya'ic ruk'ij,^v xecha'.

<https://github.com/euske/pdfminer/>

`$ pdf2txt.py -o output.txt input.pdf`

```

153 Tek ri achi'a' ri c'o quetamabel chiquij ri ch'umila' xquiya' ruk'ij ri Jesús
154 2 1 Ri Jesús s xalex c'a pa tinamit Belén, ri tinamit ri c'o pa rucuenta ri
155 Judea. Tek xalex ri Jesús, ya c'a ri Herodes ri rey, y yac'ari' tek jun ca'i'
156 achi'a' ri c'o quetamabel chiquij ri ch'umila', xe'apon pa Jerusalem. Ri achi'a'
157 ri', pa relebel k'ij ye petenak wi, t 2 y xquic'utuj c'a chique ri winek: ¿Acuchi
158 (achique) c'o wi ri ac'al ri qui-Rey ri israelitas ri xa c'a xalex? Ri ruch'umil u
159 katz'eton pe riyoj c'a quela' pa relebel k'ij, y xojpe chuya'ic ruk'ij, v xecha'.
160 3 Tek ri rey Herodes xrac'axaj ri xquibij ri achi'a' ri c'o quetamabel
161 chiquij ri ch'umila', xsach ruc'u'x. Y can queri' c'a chuka' xquic'ulwachij ri
162 winek ri aj pa tinamit Jerusalem. 4 Y ri rey Herodes xerumul c'a quinojel
163 ri principali' tak sacerdotes y ri aj tz'iba' w chiquicojol ri israelitas, y
164 c'ac'ari' xuc'utuj chique chi acuchi (achique) c'a nalex wi ri Cristo. 5 Xepe
165 ri principali' tak sacerdotes y ri aj tz'iba' xquibij c'a chare ri rey: Ri Cristo
166 nalex pa tinamit Belén x wawe' pa rucuenta re Judea. Ruma jun chique ri
167 profetas ri kek'alajsan ri ruch'abel ri Dios ojer ca, quec'are' ri rutz'iban ca:
168 6 Y riyit tinamit Belén ri yitc'o pa Judá, y
169
170 riyit ma can ta yit co'ol chiquicojol ri nima'k tak tinamit chiri' pa Judá,
171 ruma ya ri chiri' awuq'ui riyit xtiye wi ri uc'uey bey,
172 y can xqueruchajij z ri nutinamit Israel achi'el nuben jun utzilaj aj yuk',

```



- Stripped front and backmatter by hand

Cleaning up the raw text

- Stripped front and backmatter by hand
- Used `grep+sed` to remove header/footer

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Cleaning up the raw text

- Started to fix orthography

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q'ui -> 'i

qui -> &i

q'ue -> 'e

que -> &e

k' -> q'

k -> q

c' -> &'

ch -> #

c -> k

ua -> wa

b -> b'

f -> w

--> k

& -> k

-> ch

xquic'ulwachij ->

⟨[qui -> &i],[c' -> &'],[& -> k]⟩

-> xkik'ulwachij

We also had to fix word segmentation and

yinc'o -> in c'o

yitc'o -> at c'o

yojc'o -> oj c'o

yec'o -> e c'o

yixc'o -> ix c'o

55 1 Ri Jesús xalex k'a pa tinamit b'elén, ri tinamit ri k'o pa rukwenta ri Judea.
56 Teq xalex ri Jesús, ja k'a ri Herodes ri rey, y ja k'a ri' tãq jun ka'i' achi'a' ri
k'o ketamab'el chikij ri ch'umila', xe'apon pa Jerusalem.
57 Ri achi'a' ri', pa releb'el q'ij ye petenaq wi, 2 y xkik'utuj k'a chike ri wineq:
Akuchi (achike) k'o wi ri ak'al ri ki-Rey ri israelitas ri xa k'a xalex?
58 Ri ruch'umil qatz'eton pe roj k'a kela' pa releb'el q'ij, y xojpe chuya'ik ruq'ij,
xecha'.
59 3 tãq ri rey Herodes xrak'axaj ri xkib'ij ri achi'a' ri k'o ketamab'el chikij ri
ch'umila', xsach ruk'u'x.
60 Y kan ke ri' k'a chuqa' xkik'ulwachij ri wineq ri aj pa tinamit Jerusalem.
61 4 Y ri rey Herodes xerumol k'a kinojel ri prinkipali' taq sakerdotes y ri aj
tz'ib'a' chikikojol ri israelitas, y k'ak'ari' xuk'utuj chike chi akuchi (achike)
k'a nalex wi ri kristo.
62 5 Xepe ri prinkipali' taq sakerdotes y ri aj tz'ib'a' xkib'ij k'a chire ri rey: Ri
kristo nalex pa tinamit b'elén wawe' pa rukwenta re Judea.
63 roma jun chike ri profetas ri xeq'alajsan ri ruch'ab'el ri Dios ojer ka, kek'are' ri
rutz'ib'an ka:



Outstanding Issues: Relaxed vowel problem

tinamit < tinamit

jeb'el < jeb'el

raqen ya' < raqän ya'

jotol < jotöl

jub'ul < jub'ül

Outstanding Issues: Auto-aligning

The big challenge will be to cut out the middle steps where change orthography, and instead align the five bibles relative to chapter and verse.

Using the Corpus for Research

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- In K'aqchikel, it comes from a demonstrative
 - la NP (la') 'close to speaker'
 - re NP (re') 'not close to speaker (visible)'
 - ri NP (ri') 'not close to speaker (not visible)'

R_i is used to pick up recently introduced drefs.

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Xapon k'a chuqa' jun achi ri Jairo rub'i'. Ri achi k'a ri' jun chike ri prinkipali' chupan ri jay ri qas nik'ut wi ri ruch'ab'el ri Dios.

Then also a man who was called Jairo arrived. The man, well, he was one of the leaders of the place where they taught the word of God.

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Ri rixjayil k'a ri Zakarías, **Elisabet rub'i'**. **Ri Elisabet ri'** jun chike ri e riy rumam ka ri nimalaj sakerdote ri xub'ini'aj Aarón.

Ri wife of Zakarias was named **Elizabeth**. **Elizabeth** was also one of those whose ancestor was the great priest named Aaron.

I'm interested in the fact that **ri** also co-occurs incredibly frequently with the indefinite article **jun**.

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. . . xb'ekitzijoj k'a chire ronojel ri xub'en **ri jun** mozo . . .

literally

. . . he went and told him everthing that **the a** slave had done . . .

Maybe it's like indefinite-*this* (Fillmore 1977)

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I met a friend of yours last night. Well, this guy told me some pretty interesting things about you.

vs

I met this friend of yours last night who told me some pretty interesting stories about you.

ri jun is used anaphorically

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Pero k'o k'a jun achi ri xtipe re chqawech apo, ri man achi'el ta ok rin. Rin kan ma ruk'amon ta richin chi nk'waj ri ruxajab', roma ri jun achi ri' kan más wi nim ruq'ij y kan más wi nim ruchuq'a' ke chinuwech rin.

But there still will come a man before us who is not like little me. I could not have come to carry his sandals, because this man, truly his day and his power is much greater than mine.

But **ri jun** can also introduce new referents

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Y xe'apon k'a chupan **ri jun juyu'** Gólgota rub'i'. Gólgota ntel chi tzij rub'aqil rujolon kamineq. Täq kan e k'o chik k'a **chiri'**, xkiya' k'a chire ri Jesús jun ch'omilaj ruya'al uva xolon rik'in jun k'ayilaj aq'om.

And then they arrived on **this hill** named Golgotha. Golgotha means skulls and bones of the dead. Verily when they were **there**, they gave to Jesus vinegar mixed with gall [lit. soured wine mixed with the bitterest elixir].

We know from previous work on indefinite-this (and related expressions like so'n in German) that these expression can be productively studied through corpora (Ionin 2006, Prince 1981, Wald 1984, Wright et al 1987, etc.).

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The persistent intuition in the literature is that indefinite-*this* indicates to the hearer that more information is coming about its referent.

- Tends to have a relative clause
- Tend to assert of the referent "noteworthy" predicates
- Tend to make reference to the referent in subsequent discourse
- The referent tends to reoccur as subject

We tag the first 10 full clauses after the first instance of **ri jun**. If the **ri jun** NP is not the first mention, we tag the last previous mention and then tag 10 from **ri jun**.

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Eventually, we'll do the same for **jun**, the plan indefinite.

Ri rajawaren ri kaj, kan junan k'a rik'in ri xb'anatej pa
jun&a_jun_yes_PP# nimaq'ij ri xub'en ri jun
rey&b_ri.jun_no_S# chire ri ruk'ajol&b_pro_no_POSS# täq
xk'ule'.

The kingdom of heaven is like that which happened concerning a
party that was held by this king for his son when he got married.

Ri rajawaren ri kaj, kan junan k'a rik'in ri xb'anatej pa
jun&a _jun _yes _PP# nimaq'ij ri xub'en ri jun
rey&b _ri.jun _no _S# chire ri ruk'ajol&b _pro _no _POSS# täq
xk'ule'.

The kingdom of heaven is like that which happened concerning a
party that was held by this king for his son when he got married.

Ri rey ri'&b _ri.ri _no _S# kan e k'o wi ri
rub'in&b _pro _no _POSS# chik chike chi ye'apon chupan
ri&a _ri.jun.ri _no _PP# jun k'ulanen ri',

The king had many who he had told that they should come to the
a wedding,

y roma ri' xeruteq&b_pro_no_S# k'a ri ye
rumozos&b_pro_no_POSS# chi kisik'ixik ri wineq ri'.

And because of this, he sent those who where his servants to call to the people.

y roma ri' xeruteq&b _pro_no_S# k'a ri ye
rumozos&b _pro_no_POSS# chi kisik'ixik ri wineq ri'.

And because of this, he sent those who where his servants to call to the people.

k'a ri täq xesik'ix, man chik xkajo' ta xeb'e&a _pro_no_PP#.

And when they were called, they didn't want to come (to the a party)

y roma ri' xeruteq&b_pro_no_S# k'a ri ye
rumozos&b_pro_no_POSS# chi kisik'ixik ri wineq ri'.

And because of this, he sent those who where his servants to call to the people.

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And when they were called, they didn't want to come (to the a party)

Y ri&b_ri_no_S# rey xeruteq chik el nik'aj
rumozos&b_pro_no_POSS# y xub'ij&b_pro_no_S# el chike:

And the king sent again half of his servants and he said to them.

Tib'ij chike kinojel ri nya'on chik rutzijol chike chrij
re&a_re.jun.re_no_PP# jun nimaq'ij re', chi ronojel k'o chik
richin chi niqab'en ri wa'in.

Tell all of them again this news about **the a party**, that everything
that needs to be done about the food has been done.

Tib'ij chike kinojel ri nya'on chik rutzijol chike chrij
re&a_re.jun.re_no_PP# jun nimaq'ij re', chi ronojel k'o chik
richin chi niqab'en ri wa'in.

Tell all of them again this news about the a party, that everything
that needs to be done about the food has been done.

Ri achij taq nuwákix&b_pro_no_POSS# y ri nik'aj chik chikop ri
xentiojirisaj richin chi yek'atzin chupan re q'ij&a_re.re_no_PP#
re',

My oxen and half the animals have been fattened so that they are
ready for the a day,

xekamisex yan y xechojmirisex yan richin chi yetij.

kekamisex yan y xechojmirisex yan richin chi yetij.

They have been killed already and prepared already for them to be eaten

kan ronojel k'a k'o chik, kixcha' chike chi kan kepe k'a chupan
re&a_re.jun.re_no_PP# jun k'ulanen re', xcha'&b_pro_no_S#
el chike.

Truly all of you must tell them that they should come to this the a
party, he said to them.

k'a ri ri xesik'ix, ma xeniman ta pe rik'in ri xb'eb'ix chik jun b'ey chike.

Thus they were told, but they didn't believe that which had been told them one more time.

e k'o xa xeb'e pa taq kisamaj ri pa taq juyu';

Some just went about their work in the countryside;

&b_ri.jun_no_S#
&b_pro_no_POSS#
&b_ri.ri_no_S#
&b_pro_no_POSS#
&b_pro_no_S#
&b_pro_no_POSS#
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&a_jun_yes_PP#

&a_ri.jun.ri_no_PP#

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- Grammatical function of dref in subsequent discourse

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- Rate of dref reoccurrence in subsequent discourse.
- Grammatical function of dref in subsequent discourse
- Support for relative clauses.

Once we have this kind of data for both **ri jun** and **jun**, then we'll be able to make the crucial comparisons between them (and non-initial **ri jun**) concerning:

- Rate of dref reoccurrence in subsequent discourse.
- Grammatical function of dref in subsequent discourse
- Support for relative clauses.
- Types of determiners that support anaphoric reference

Together (A potential complication)

&a_jun_yes_PP#

&b_ri.jun_no_S#

&b_pro_no_POSS#

&b_ri.ri_no_S#

&b_pro_no_POSS#

&a_ri.jun.ri_no_PP#

&b_pro_no_S#

&b_pro_no_POSS#

&a_pro_no_PP#

&b_ri_no_S#

&b_pro_no_POSS#

&b_pro_no_S#

&a_re.jun.re_no_PP#

&b_pro_no_POSS#

&a_re.re_no_PP#

&a_re.jun.re_no_PP#

&b_pro_no_S#

Summary Discussion