Shaping Grammar:
The Emergence of Grammatical Distinctions

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September 2019

Fundamental Question

Why are languages the way they are?

Abstract genetic endowment:

design features universal to all humans?

Products of more general cognitive abilities

categorization, generalization, abstraction, routinization, extension, economy, processing, learnability . . .?

Other things?

Depends on what aspects of language

we're trying to explain.

And conversely,

our theoretical tools

determine in part what we try to explain.

Here

Consider some basic grammatical categories

with non-random geographical distributions

See the role of areality in shaping languages,

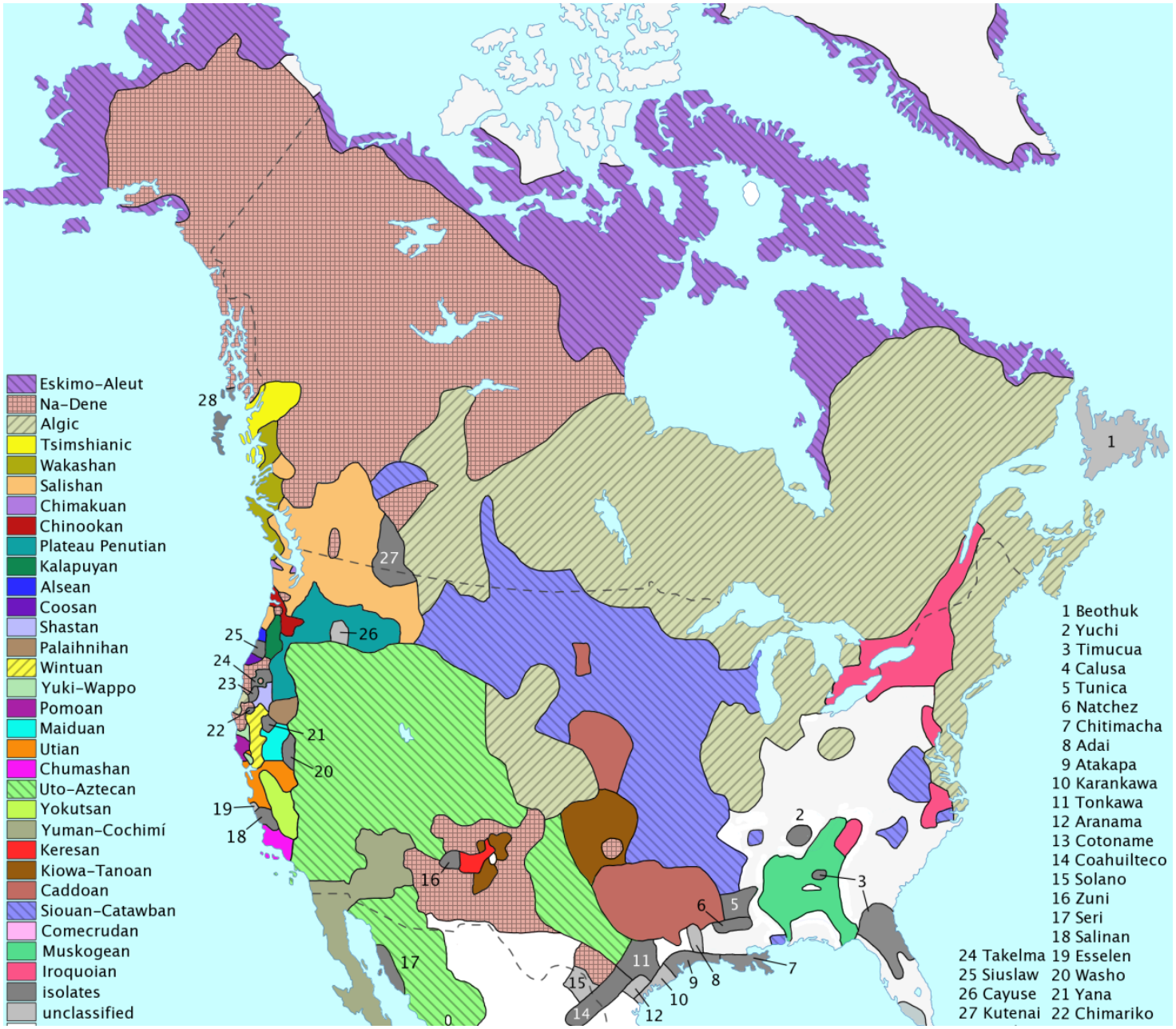
especially if we pull apart diachronic layers

1. Indigenous Languages of North America

How many languages?

Around 275 known


TUTCHONE
KASKA
SLAVE
BEAVER
CHIPEWYAN
CREE
CROW
SHOSHONI
UTE
CHEROKEE
CATAWBA



How many families in North America ?
~ 57-58

Earlier estimates 3, 6, 12, . . .

Some Strong Linguistic Areas

Northwest Coast

Southeast

California and adjacent areas

California Indigenous Languages

Heizer, Robert (ed.) 1978. *Handbook of North American Indian Languages 8 ix: California*

California Families and Isolates

Athabaskan
- Tolowa
- Hupa
- Mattole
- Eel River
- Kato

Karok

Shasta

Chimariko

Klamath-Modoc

Yana

Palaihnihan
- Achumawi
- Atsugewi

Yuki-Wappo
- Yuki
- Wappo

Pomoan
- Northeastern Pomo
- Northern Pomo
- Eastern Pomo
- Central Pomo
- Southeastern Pomo
- Southern Pomo
- Kashaya Pomo

Yokutsan
- Palewyami
- Buena Vista
- Kings River
- Gashowu
- Valley Yokuts

Chumash
- Obispeño
- Purisimeño
- Ineseño
- Barbareño
- Ventureño
- Cruzeño

Uto-Aztecan
- N. Paiute
- Mono
- Panamint
- Kawaiisu
- Chemehuevi
- Tubatulabal
- Serrano
- Kitanimuk
- Gabrieleño
- Tataviam
- Cahuilla
- Cupeño
- Luiseño

California Families and Isolates

Algic
- Yurok
- Wiyot

Wintuan
- Wintu-Nomlak
- Patwin

Maiduan
- Maidu
- Konkow
- Nisenan

Washo

Esselen

Utian
- Lake Miwok
- Coast Miwok
- Saclan
- Plains Miwok
- Northern Sierra Miwok
- Southern Sierra Miwok
- Karkin
- Ramaytush
- Chochenyo
- Tamyen
- Awaswas
- Chalon
- Mutsun, Rumsen

Salinan
- Antoniaño
- Micheleño

Yuman
- Ipai
- Tipai
- Kumeyaay
- Halchidhoma
- Quechan

20 distinct genetic groups represented

Some part of large families

stretching widely across the continent

Uto-Aztecan, Algic, Athabaskan (Dene)

Some medium or small families

mainly in California

Utian (12 languages), Yuman (11), Pomoan (7), Chumashan (6), Shastan (4), Maidun (4), Wintun (4), Yokutsan (3), Palaihnihan (2), Yuki-Wappo (2)

Some isolates:

Karuk, Chimariko, Yana, Washo, Esselen, Salinan


California Indian
Tribal Groups
Tolowa
Yurok
Chilula
Wiyot
Whilkut
Chimariko
Mattole
Nongatl
Lassik
Wailaki
Sinkiyone
Kato
Coast Yuki
Huchnom
Lake Miwok
Wappo
Coast Miwok
Esselen
Kitanemuk
Karok
Shasta
Modoc
Achomawi
Hupa
Wintu
Atsugewi
Yana
Maidu
Yuki
Nomlaki
Konkow
Pomo
Patwin
Nisenan
Northern Paiute
Washo
Mono Lake Northern Paiute
Sierra Miwok
Owens Valley Paiute-Shoshone
Northern Valley Yokuts
Costanoan
Western Shoshone
Monache
Foothill Yokuts
Tabtulabal
Southern Valley Yokuts
Salinan
Kawaiisu
Southern Paiutes
Mojave
Chumash
Serrano
Chemehuevi
Gabrieleño
Tataviam
Cahuilla
Halchidhoma
Gabrieleño
Luiseño
Quechan
Ipai
Tipai
California Indian Library Collections

History of Classification in the West

By 1891

most North American families established: Powell

1903

Dixon, Kroeber noted structural resemblances

ascribed them to common typology

1913

Attributed them to deep genetic relationships:

Hokan and Penutian

“Hokan”

Original Hokan Hypothesis

Karuk, Chimariko, Yana, Shastan, Palaihnihan, Pomoan, Esselen, Yuman

Subsequent Additions

Washo, Salinan, and Chumashan from California

Tonkawa, Karankawa, and Coahuilteco languages from Texas

Seri, Tequistlatecan, and Tlappanec from Mexico

Subtiaba from Nicaragua

Jicaque from Honduras

Original Hokan Proposal

Dixon, Roland and A.L. Kroeber 1913. New Linguistic Families in California. AA n.s.15.4: 647-655.

5 presumed cognate sets

‘eye’, ‘tongue’, ‘water’, ‘stone’, ‘sleep’

Shared structural characteristics

absence of plural on most nouns

plural suffixes on verbs

pronominal affixes on verbs

instrumental verb prefixes

locational verb suffixes

Hokan Hypotheses (and beyond)

Challenges

Remoteness of relationships:

like Indo-European or deeper

Sparse documentation of many languages,

many no longer spoken

Long histories of extensive contact

“Penutian”

Original hypothesis

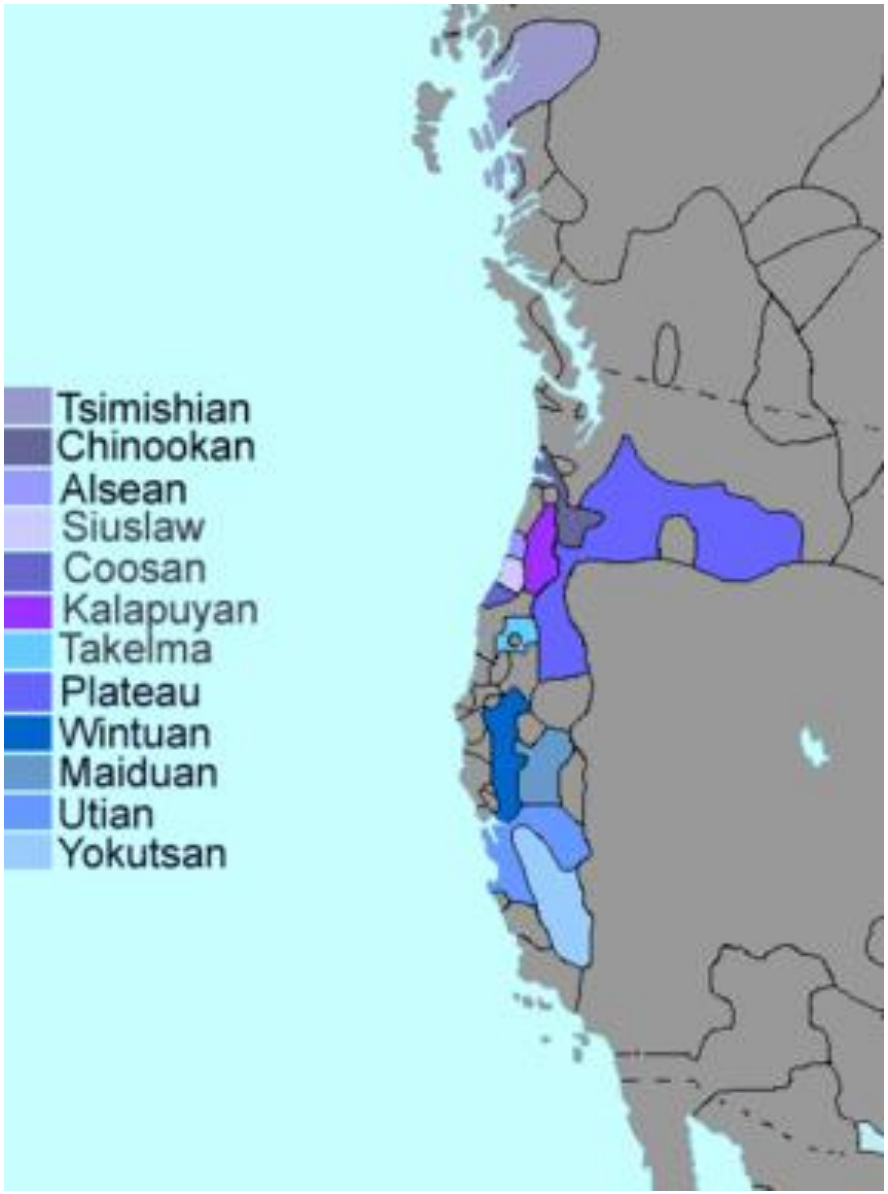
Maidun, Wintun, Utian (Miwok-Costanoan), Yokuts in California

Then Takelma, Coos, Siuslaw, Alsea, Klamath-Modoc, Cayuse-Molala, Sahaptian, Takelma, Kalapuya, Chinookan in Oregon

Tsimshianic in British Columbia

Mixe-Zoquean, Huave in Mexico

Proposed Penutian (and beyond)



Families in Proposed Penutian

Original Evidence for Penutian

Dixon, Roland B. and A.L. Kroeber 1913. New linguistic families in California. *American Anthropologist*, n.s 15.4: 647-655.

5 vocabulary items

‘bow’, ‘three’, ‘fire’, ‘liver’, ‘forehead’

	‘bow’
Yokuts	*dayap*, *dalap*
Wintun	*kulul*, *kulsak*
Costanoan	*ława*, *šonok*, *tanuka*
Maidu	*pandak*
Miwok	*soloku*, *kono*, *tanuka*

Original Evidence for Penutian

Dixon, Roland B. and A.L. Kroeber 1913. New linguistic families in California. *American Anthropologist*, n.s 15.4: 649-650.

‘There is available enough information on the **structure** of the five Penutian languages to prove their **genetic affinity** beyond a doubt even without recourse to lexical similarities . . .

In the compass of the present notice, it is impossible to begin to enumerate the structural resemblances.

More Recent Proposals

Nichols 1999

Dunn, Terril, Reesink, Foley, & Levinson 2005

Structural features might inform us about deeper historical relationships than are accessible through the standard method of historical linguistics.

Hunley, Dunn, Lindström, Reesink, & Terrill 2008

They seem, at least in some cases,

more resistant to admixture than human genes.

Dunn M., Terrill A., Reesink G., Foley RA, Levinson S.C. 2005. Structural phylogenetics and the reconstruction of ancient language history. *Science* 309: 2072–2075.

Dunn M., Levinson S.C., Lindström E., Reesink G., Terrill A. 2008. Structural phylogeny in historical linguistics: Methodological explorations applied in island Melanesia. *Languag*e 84: 710–759.

Hunley K., Dunn M., Lindström E., Reesink G., Terrill A., et al. 2008. Genetic and linguistic coevolution in northern island Melanesia. PLoS Genet 4: e1000239.

Nichols J. 1999. *Linguistic Diversity in Space and Time*. University of Chicago Press.

Can language contact

affect not just lexicon (matter)

but also structure (pattern)?

Evolving Views

Thomason & Kaufman 1988: 14

‘Any linguistic feature can be transferred from any language to any other language.’

Important factors

language maintenance *vs* language shift

intensity of contact

Thomason, Sarah Grey & Terrence Kaufmann. 1988. *Language Ctonact, Creolization, and Genetic Linguistics*. Berkeley: University of California.

Language Maintenance

Thomason & Kaufman 1988: 50

Casual contact, little bilingualism

only non-basic vocabulary borrowed

Intensive contact, much bilingualism, long period

much lexical borrowing,

moderate to heavy structural borrowing,

especially phonology and syntax

Language Shift

Thomason & Kaufman 1988: 50

Small shifting group

No effect on target language

Large shifting group

Moderate to heavy effect,

especially in phonology and syntax

Comparative stability
of structural features

Cysouw, Albu, & Dress 2008: The Consistency with Overall Patterns

Dediu 2011: The Phylogenetic Rates of Evolution

Maslova 2002, 2004: Estimating Transition Probabilities

Parkvall 2008: Borrowability versus Geneaological Stability

Wichmann & Homan 2009: Stable Features Tend to “Stay in the Family”

Dediu, Dan & Michael Cysouw 2013. **Some structural aspects of language are more stable than others:** A comparison of seven methods. PLOS. http//dx.doi.org/10.1371/journal.pone.0055009

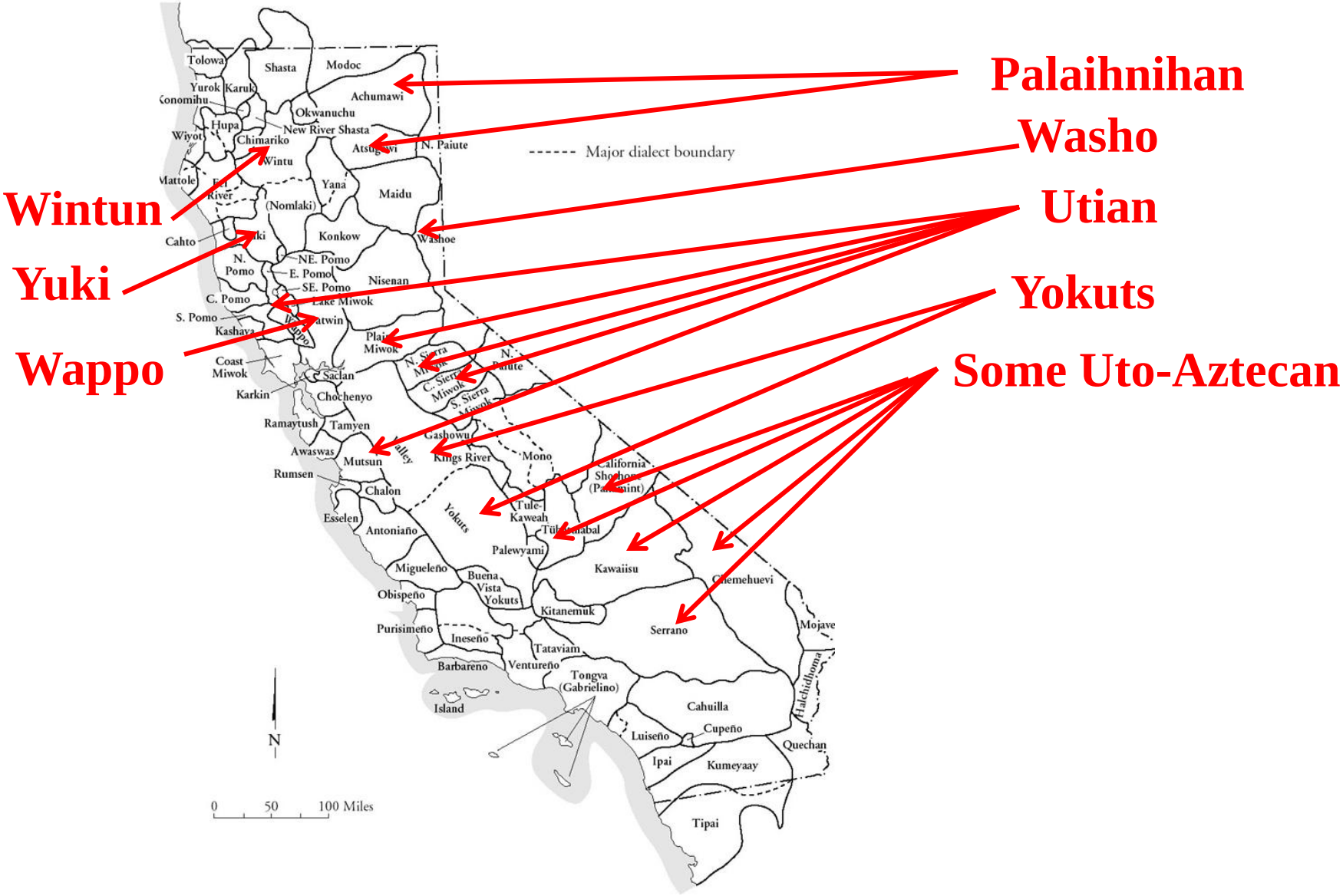
2. Pronominal Categories I: Inclusive/Exclusive

‘you and I’ vs ‘he/she/they and I’

Areal Distribution

Pockets of unrelated languages

in Western California



Inclusive-Exclusive

Not along strict genealogical lines

Yuki but not possibly related Wappo

Numic branch of Uto-Aztecan

and just one outside of the branch: Tübatulabal

which is surrounded by Numic languages

Palaihnihan, Washo

but not other languages hypothesized as “Hokan”

Wintun, Utian, Yokuts

but not other languages hypothesized as “Penutian”

And

Forms can still be seen
to have been cobbled together
from other markers in the languages, in different ways.

(‘I’ + ‘you’, or ‘I’ + ‘two’ for inclusive, etc.)

Yawelmani Yokuts Personal Pronouns

SUBJECTS	SG	DU	PL
1EXCL	***na'***	***na'ak'***	***na'an***
1INCL		***ma'ak'***	***may***
2	***ma'***	*mingin*	*ma'an*
3	*ama'*	*amingin*	*aman*

Objects			
1EXCL	***nan***	***na:nkiwa***	***na:ninwa***
1INCL		***makwa***	***maywa***
2	*mam*	*ma:mikwa*	*ma:minwa*
3	*amam*	*ama:mikwa*	*ama:minwa*

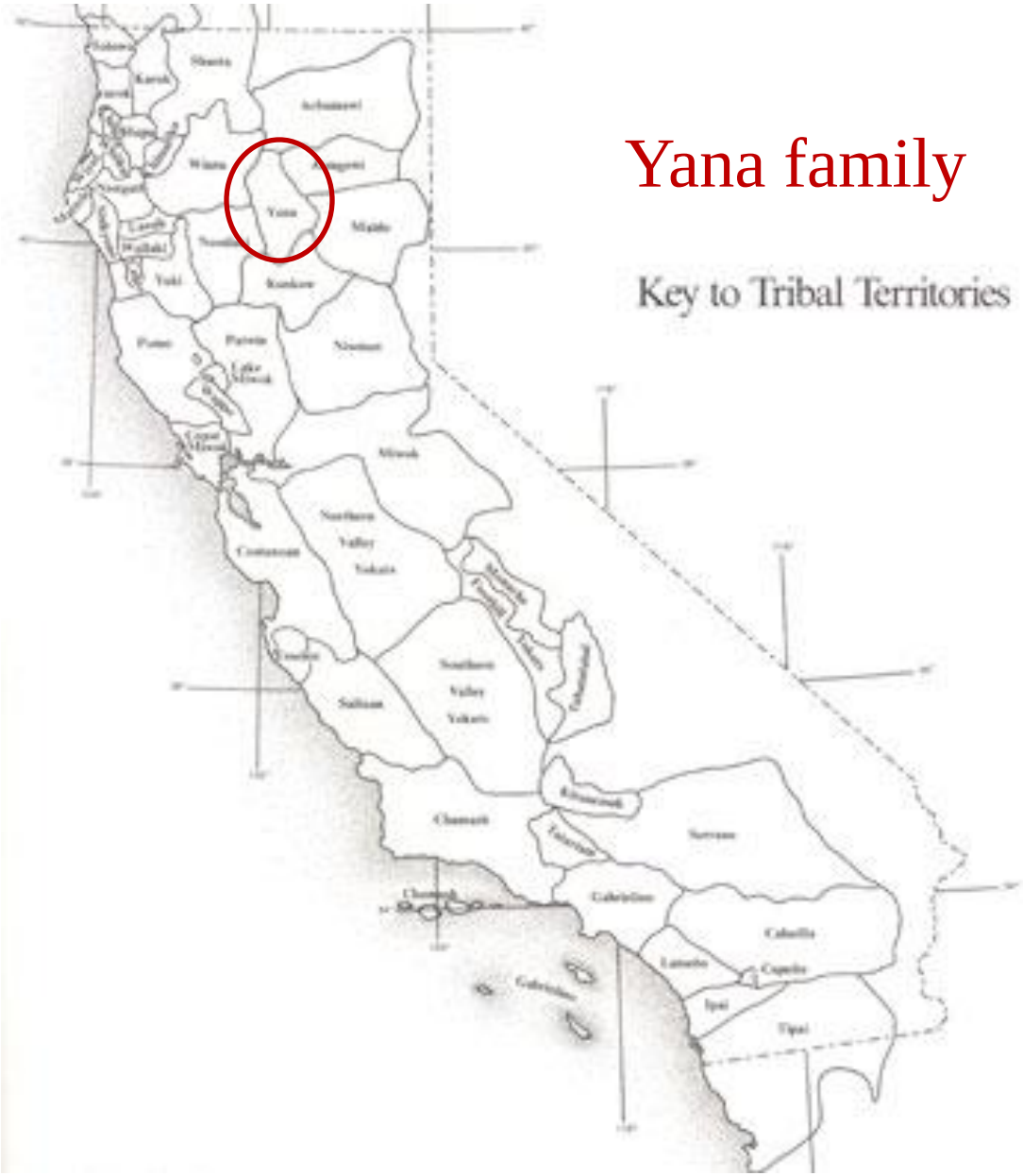
Newman, Stanley 1944. *Yokuts language of California*. Viking Fund Publications in Anthropology 2. New York.

Bilinguals

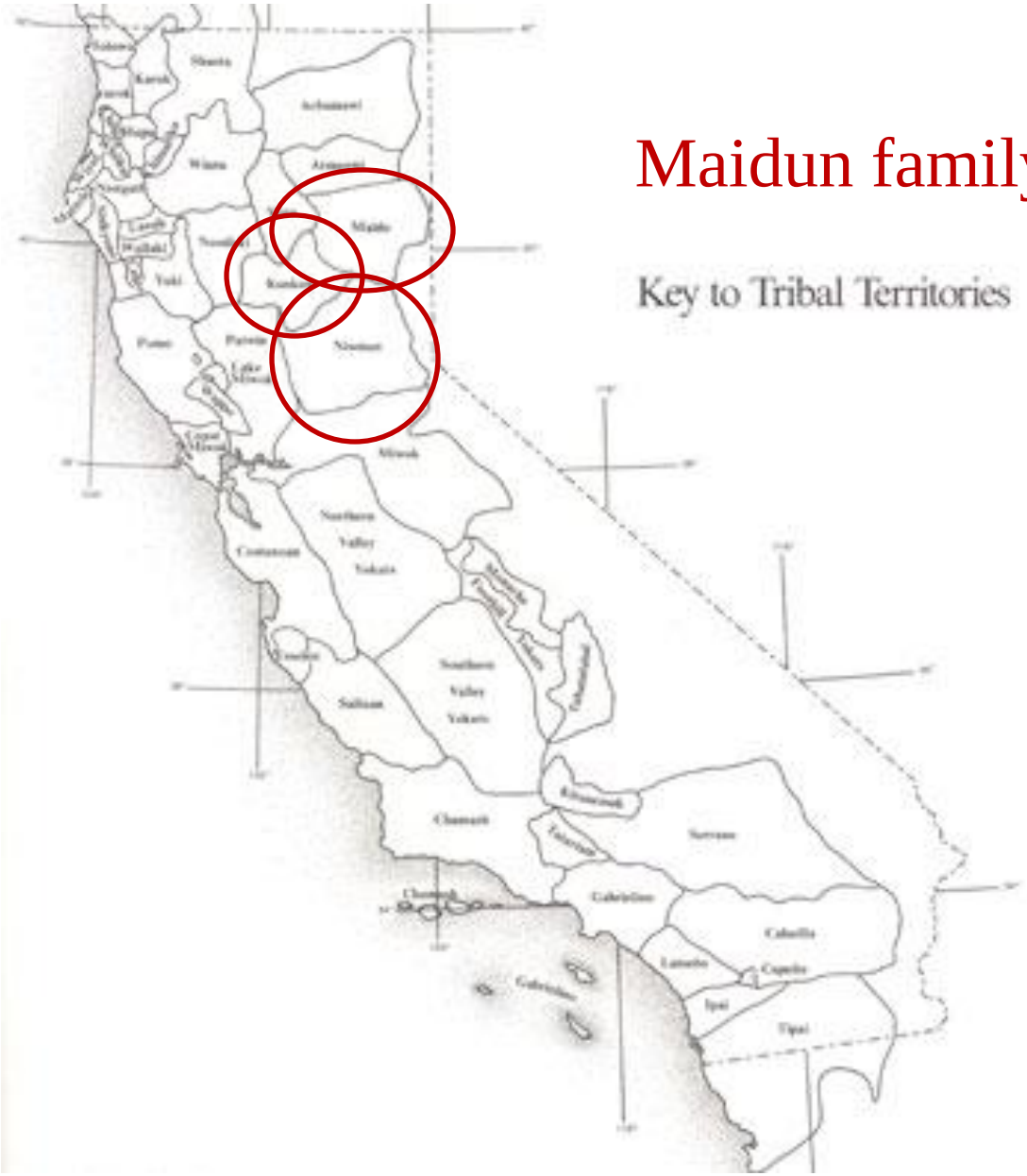
searching to express a distinction from one language
may have worked to replicate it in their other
using native forms.

3. Pronominal Category II: Dual Number

Dual Pronominal Category



Dual Pronominal Category

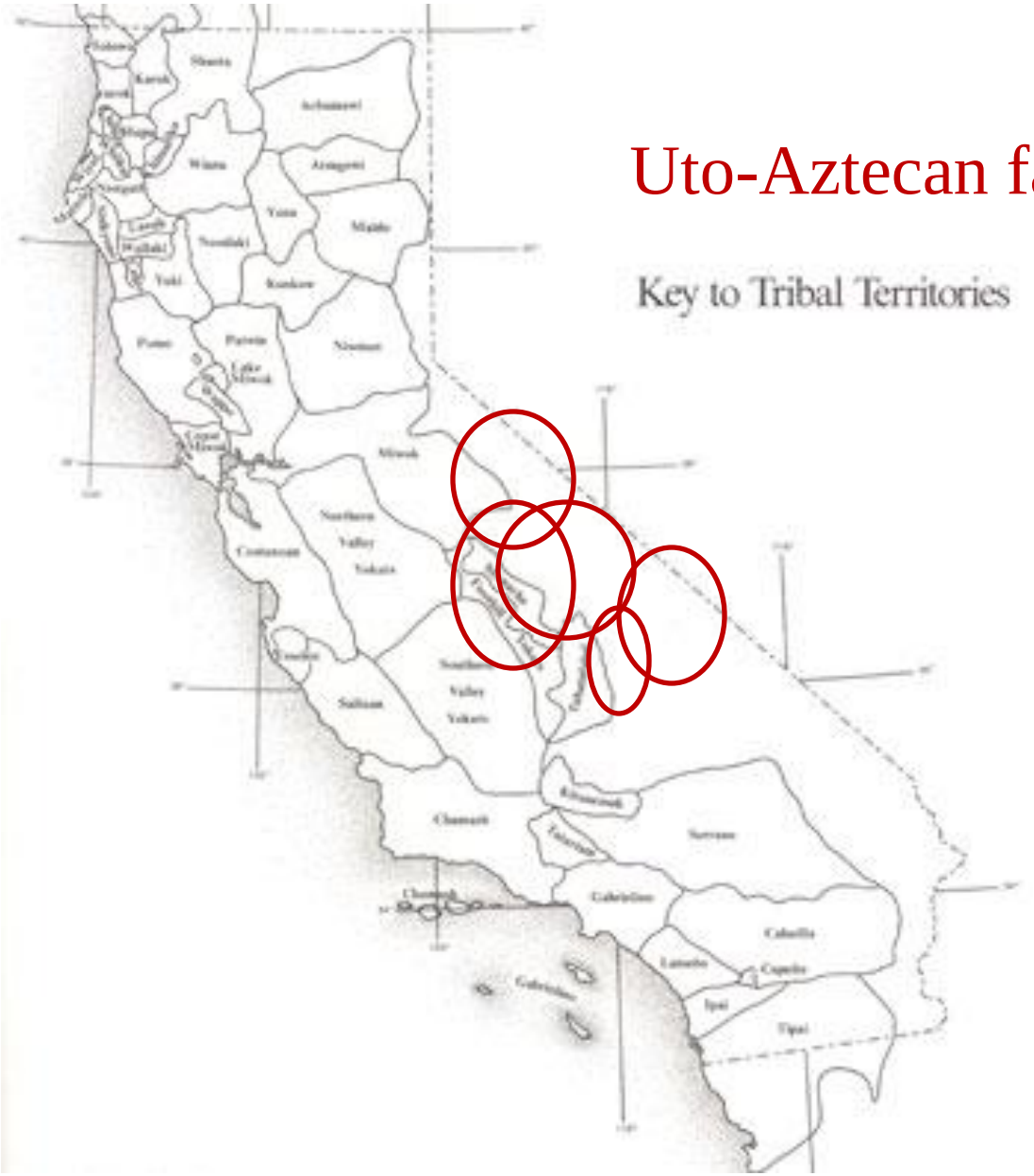


Dual Pronominal Category

Dual Pronominal Category

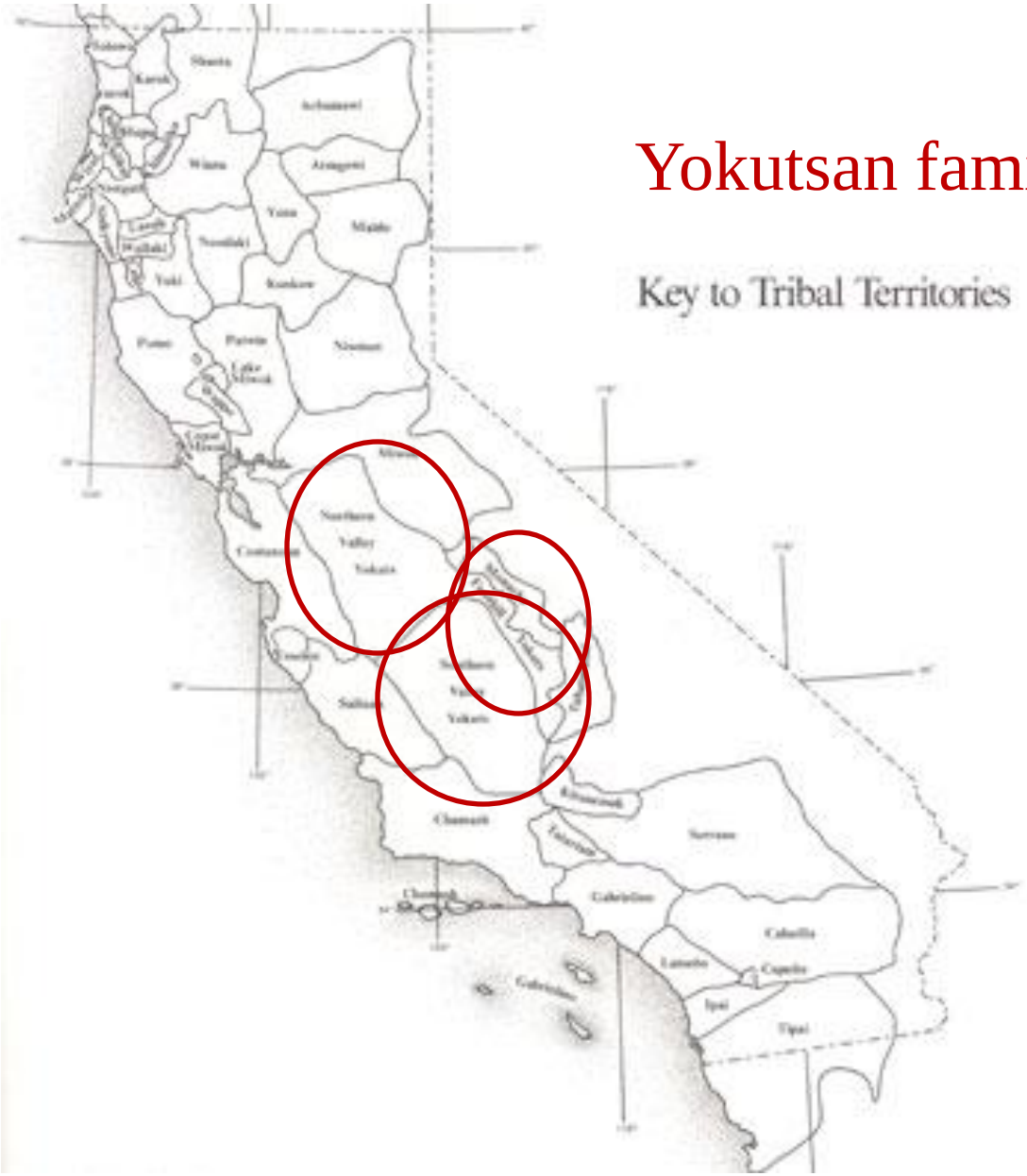
Dual Pronominal Category

Uto-Aztecan family



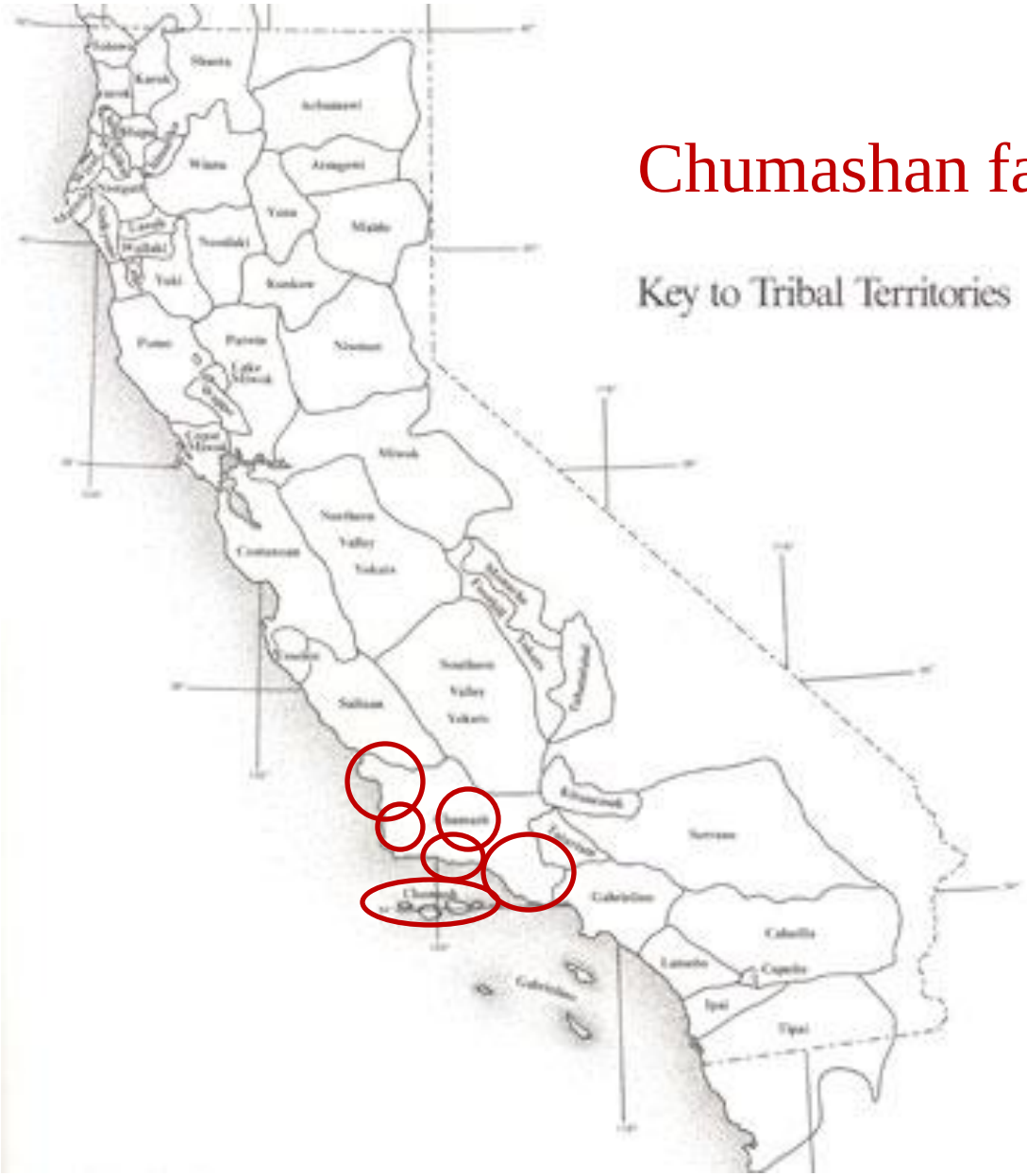
Dual Pronominal Category

Yokutsan family



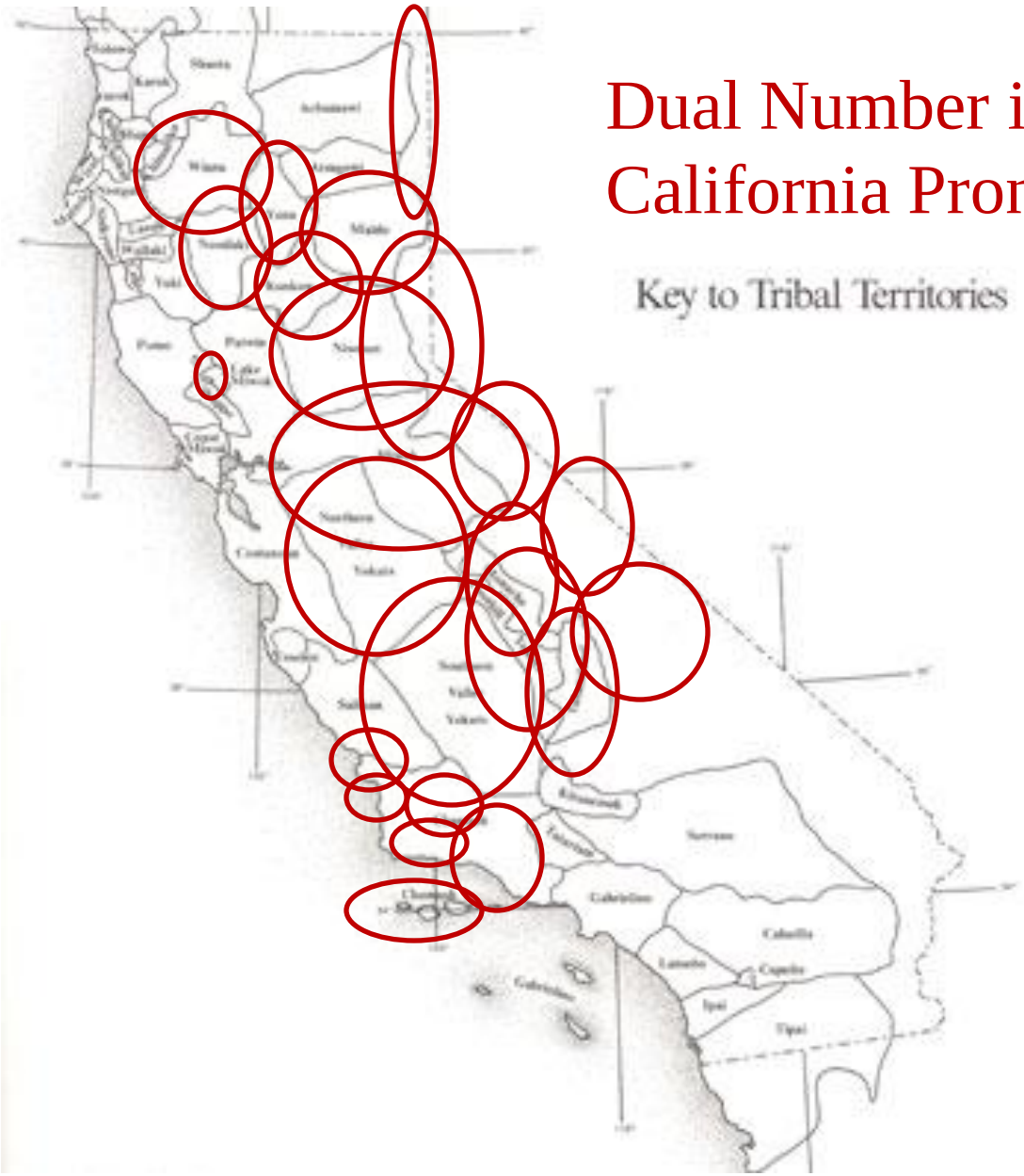
Dual Pronominal Category

Chumashan family



Dual Pronominal Category

Dual Number in California Pronouns



Dual Pronominal Category

Crosses Family Boundaries

Wintun

Yanan

Maidun

Washo

Utian

Yokutsan

Uto-Aztecan

Chumashan

Crosses Deepest Superstock Proposals

Putative “Hokan”

Yana, Washo

Putative “Penutian”

Wintun, Maidun, Utian, Yokutsan

But also Splits Hypothesized Stocks

Putative “Hokan”

Yes: Yana, Washo

No: Shasta, Karuk, Chimariko, Palaihnihan, Pomoan, Salinan, Yuman

Putative “Penutian”

Yes: Wintun, Maidun, Yokutsan, Coos, Siuslaw

No: Klamath, Takelma (Oregon)

Splits Families

Utian (Miwok-Costanoan) Family

Yes: Miwok branch (mainly inland)

No: Costanoan branch (coast)

Splits Families

Uto-Aztecan Family

Yes: Central Numic branch, Hopi, Tubatulabal

Tubatulabal, Hopi neighbors but not most closely related

Tumpisa oblig on pro, opt on adj, dem, pres participles, derived nouns

Rudimentary: Western, Southern Numic branch

(morphemes for dual not cognate with Central Numic)

No: Other Uto-Aztecan languages

No: Proto-Uto-Aztecan

Ronald Langacker. 1977. *Studies in Uto-Aztecan Grammar, Volume 1, An Overview of Uto-Aztecan Grammar. SIL Publ in Linguistics.* Number 56. Dallas: SIL and U. of Texas at Arlington.

McLaughlin, John 2013. Central Numic Innovations in Dual Number Marking. Paper presented at the Linguistic Society of America Annual Meeting, Boston.

Present through geographic center
Absent around edges

Sources of some markers at outer boundaries still identifiable:

Maidun ‘both’; Tumpisa ‘two’

So

Pronominal distinctions

have apparently been replicated.

Bilinguals accustomed to specifying

a certain distinction in one of their languages

are likely to try to replicate it in another

exploiting native devices in that one.

4. Alternative Third Persons

A number of North American languages

have two sets of third person pronouns

that do not distinguish gender.

(Algonquian, Athabaskan, Caddoan, Eskimo-Aleut families)

AND parts of California!

The distinctions vary and can be subtle.

4.1 Pomoan Family

Central Pomo

California Indigenous Languages

Heizer, Robert (ed.) 1978. *Handbook of North American Indian Languages 8 ix: California*

Central Pomo Territory

Near Hopland, California, with view of Clear Lake

Hopland, California

Central Pomo Hopland Band Singers

Central Pomo Pronouns

	AGENT	PATIENT	OBLIQUE
1SG	*ʔa:*	*t͡o:*	*ʔkʰe*
2SG	*ma*	*mt͡o*	*mkʰe*
3SG	*mu:l*	*mú:t͡u*	*mú:kʰe*
3’SG	*t͡í:*	*t͡í:to*	*tí:kʰe*
1PL	*ya*	*yal*	*yá:ʔkʰe*
2PL	*máya*	*máyal*	*máya:ʔkʰe*
3PL	*mú:t͡uya*	*mú:t͡uyal*	*mú:t͡uya:ʔkʰe*
3’PL	*t͡íya*	*t͡íyal*	*tí:ya:ʔkʰe*

Central Pomo Pronouns

	AGENT	PATIENT	OBLIQUE
1SG	*ʔa:*	*t̪o:*	*ʔkʰe*
2SG	*ma*	*mt̪o*	*mkʰe*
3SG	***mu:l***	***mú:t̪u***	***mú:kʰe***
3'SG	***t̪í:***	***t̪í:to***	***tí:kʰe***
1PL	*ya*	*yal*	*yá:ʔkʰe*
2PL	*máya*	*máyal*	*máya:ʔkʰe*
3PL	***mú:t̪uya***	***mú:t̪uyal***	***mú:t̪uya:ʔkʰe***
3'PL	***t̪íya***	***t̪íyal***	***tí:ya:ʔkʰe***

What is the difference

between these two sets of 3rd persons?

3 *mu:l* and **3' *ṭí:*** etc.

Basic 3rd Person: ***mu:l***

Frances Jack, speaker p.c.

Mú:ṭu	*č'al*	*yow*	*dá:ʔduw,*
her	home.to	go	want

'(He) asked **her** if (she) wanted to go home,

mu:l	*do:*	*čʰow*	*híhduw.*
she	QUOT	no	said

but **she** said "No".

Mu:l developed from distal pronoun 'that'.

Omitted when reference is clear.

Frances Jack,

speaker

Central Pomo Basic Possessor

Salome Alcantra, speaker p.c.

Yá:q’	*t͡ʰín*	***mú:ṭuya:kʰe***	*k’úči.*
know	not	**3PL.POSS**	children

‘I don’t know **their** children.’

3rd Person: ***ṭi:***: Coreference

Human (or personified) referents
co-referential with the subject of their clause

Central Pomo Co-referential Possessor

Florence Paoli, speaker p.c.

Mú:ṭuya ʔ=mu:l, ***tí:ya:kʰeṭ'*** *čá:č' ló:hč'iw.*

they COPULA=that **3'PL.POSS** person help

'They just help **their own** people.

Subject controller need not be overt.

Florence Paoli, speaker p.c.

Tíya:kʰet̪'	*qanémač'*	*yačól*	*šk'e*
3'PL.POSS	relative	to	only

t̪áwhal	*daqát̪aqya.*
work	give.PERSONAL.EXPERIENCE

'(They) only give jobs to **their own** relatives.'

Forence Paoli and Frances Jack

speakers

Overlapping Reference

Frances Jack, speaker p.c.

Dé:ʔwadan	*t̑o:*	*ʔe*
lead.around.IMPFV	1SG.PATIENT	COPULA

‘(He) would lead me around

t̑íya:kʰe	*ma:*	*pʰwí:kawʔkʰe.*
3’PL.POSS	land	see.CAUSATIVE.FUTURE

to show me **their** ranch.’

Not Basic Reflexives

Central Pomo morphological reflexive

čaqʰáw ‘cut’

*čaqʰá**č’*** ‘cut **oneself**’

Not Emphatic Reflexives

Central Pomo emphatic ***šʔún*** ‘oneself’

Šʔún *qʰadímmaw* ‘we went after it **ourselves**’

Possession on Kinship Terms

Salome Alcantra, speaker p.c.

Mída čá:č’ má:ṯa ***mú:kʰeṯ’*** *q’alá:w,*

there man woman 3SG.POSS died

‘That man, **his** woman died,

míya: *dáqa:del mu:l.*

POSS wife that

his wife.’

‘woman’	=	basic noun
‘wife’	=	kinship term

Salome Alcantra,

speaker

Co-referential Possession on Kinship Term

Mú:ʈuya	***ma***-*ʈʰé-l*	*sdó*	*ʈ'om.*
they	3'POSS-mother-PAT	breast	nurse-MULT.AGT

'They (puppies) were nursing on **their** mother's breast.'

Beyond the Clause

Co-reference with a higher subject

Coreference with Higher Subject

Frances Jack, speaker p.c.

Mu:l	*šá:ṭ'a:'duw*	*mu:l*
3SG.AGENT	know.PFV	3SG.AGENT

'**She** knows

ʔa:	***tí:to***	*ma:*	*t͡ét͡edan.*
1SG.AGENT	**3'SG.PAT**	things	tell.IMPFV

all the things I've been telling **her**.'

Coreference with Unexpressed Higher Subject

Frances Jack, speaker p.c.

Mé:n ***tí:to*** *mí:-ya-w* *ʔin*,

so 3'PAT tell-PASS-PFV when

'When **he** was told,

mil *šmá:* *ʔt͡ʃʰin*.

that to ear not

(he) didn't even listen.'

Coreference with Unexpressed Subject

Salome Alcantra, speaker p.c.

Mu:l, báya: ʔel, híhduw

that one man the said

‘That man said

*k’ú:, **tí:to** hláw t̪’a: wá:n yá:q’ t̪ʰín ʔe mu:l,*

child **3’PAT** behind guess walking know not COP that

that (he) didn’t know a child was walking behind **him**

t̪í:kʰet̪’ car ʔel, backupč’iwda mu:l.

3’POSS car the as backing up that

as he was backing up his car.’

Coreference on Kinship Term

Frances Jack, speaker p.c.

Ma-*báyal* *ʔi-w*

3'POSS-husband.PAT do-PFV

'(She) did that to **her** husband

tí:to *dú-:ka-w* *dá:-w* *čʰów* *ʔi-n.*

3'PAT see-CAUS-PFV want-PFV not.PFV be-as

because **she** didn't want to let (them) see (him).'

Similar Distinctions described elsewhere in the world

Long-distance Reflexives

Latin, Icelandic, Faroese, Japanese, etc.

Some reflexive pronouns may take antecedents outside of their immediate clause.

Thráinsson 1976, Anderson 1982, Barnes 1984, Maling 1984, Sigurðsson 1986, Sells 1987, etc.

Like Central Pomo examples just seen.

Logophoric Pronouns

Term coined by Hagège 1974

Classic definition: Clements 1975:141

‘Logophoric pronouns are used to refer to the person whose speech, thoughts, or feelings are reported or reflected in a given context.’

Logophoric pronouns
in certain African languages

Hagège 1974, Clements 1975, Hyman and Comrie 1981, Frajzyngier 1985, Wiesemann 1986, Sells 1987, von Roncador 1992, Stirling 1993, Culy 1994, 1997, Dimmendal 2001, Curnow 2002, Güldemann 2003, 2008, Bond 2006, Bhat 2007, etc.

Nau 2006 for Finnish and Latvian dialects

Also like Central Pomo

Central Pomo ***t̪i:*** pronouns

frequent with higher verbs of speech

Higher Verb of Speech

Tí:kʰet’	*t͡áwhal*	*t͡ʰin*	*ʔt͡i*
3’SG.POSS	work	not	but

‘Not **his** job but

t͡í:	*kʰe*	*q’dí:ckaw*	*híhč’inba*
3’SG.AGT	1SG.POSS	good.CAUS.FUT.PFV	saying.and

(he) said **he** would fix mine

čá yóba	*q’díčkaw.*
house.come.and	good.CAUS.PFV

and (he) came in and fixed it.’

Higher Verb of Speech

Mú:t̑uya *t̑o:* *qʰadí:ʔčʼi-w,*

3PL.AGENT 1SG.PATIENT invite-PFV

‘**They** asked

ʔa: *do:* ***t́íyal*** *čʼa:l*

1SG.AGENT QUOT **3’PL.PATIENT** with

me to come swimming

ʔa: *qʰá* *qó:mač=ʼkʰe.*

1SG.AGENT water swim.PL-IRR

with **them**.’

Frequent Co-occurrence with Quotative *do:*

Frances Jack, speaker p.c.

Mi:	*do:*	***ti:***	*čó:'duw*	*dačét̓*	*čanú*	*'el.*
there	QUOT	**3'AGT**	keep	catch	word	the

'That's the way **she** keeps, catches the words.'

With Quotative *do:*

even without verb of speaking

Kate Daniels, speaker p.c.

Béda	*t̑o:*	*č’a:l*	*qóyowhi*
here	1SG.PAT	with	come.PFV.and.SAME

‘**She**’s going to come and

do:	***t̑i:***	*ʔčʰá:-w=’kʰe.*
QUOTATIVE	**3’SG.AGT**	sit-PFV=IRR

stay with me.’

Same or Different?

Culy 1997

Distinct primary functions

Long distance reflexives:

Clausal coreference

Obligatory in domain (sentence)

Logophoric pronouns:

Indirect discourse marker

Optional in domain (discourse)

Common secondary function

Point of view

Overt Higher Verb of Speech or Quotative not obligatory in Central Pomo

‘I went with her and took my basket. I just took it. And then they went in. I sat in the car. I didn’t go in, because they had something to talk about. I sat in the car.

Then I said, “Take mine in too,” I said to the man, her husband. “Just find out how much they would give me for it.”

After awhile her husband came out and said (he) wanted to give me $300 for it. So I said, “Well, I’ll keep it a little longer. After awhile I’ll get more. [Yeah.] Lots too. [They’ll pay more.] I’ll hold onto it a little longer. [Mhm.]. For a different price.

Anyway, we came back.’

No Higher Clause

Florence Paoli, speaker p.c.

Tí:to	*qʰadíway*	*dá:ʔduw*
3’SG.PAT	buy	want

‘**He** wanted to buy it

mída	*ʔe*	*mé:naw*	*maná:č’.*
there	COP	so much	pay

for the same price they mentioned there.’

No Overt Verb or Quotative: Kinship Terms

Frances Jack, speaker p.c.

Speaker had heard about the death of a man and ran into his widow.

‘I felt bad. I asked her,

“When are you going to bury him? You let me know.”

“He’s not going to have a funeral. I’m going to have him cremated.

I don’t want to let other people look at him.”

Mé:n *ʔin* ***tí:***,

that be.as 3’SG.AGENT

‘That’s why **she**

ma-*báyal*, *mléy:kaw.*

3’POSS-husband.PATIENT burn.CAUS.PFV

cremated **her** husband.’

Actually no speech necessary at all.
Simply point of view

ʔúda:w	*qamáṯ'*	*ṯá:ʔda*	*háyu.*
really	mad	feel.IMMEDIATE	dog

'The dog is feeling pretty mad.'

Ṯí:kʰe	*má:ṯa.man*	*ʔčí:yaw.*
3'SG.POSS	woman.particular	take.DEFOCUS

'**His** woman was taken away.'

Central Pomo *ṭi:*

3rd person

from whose point of view situation is presented.

Would-be suitor looking in the mirror feeling sorry for himself after he had been turned away.

'**He** (BASIC) felt pretty bad. (He) started to cry.
After **he** (EMPATHETIC) had groomed himself
after **he** (EMPATHETIC) had gone over there
he (EMPATHETIC) was spit out of there.'

ti:

Jesse Frank, speaker p.c.

Mu:l	*ʔúda:w*	*ba:sə́t'*	*t'á:ʔduw.*
3	really	bad	felt

'**He** felt pretty bad.

Me:n	*c'íba*	*mu:l*	***tí:***	*q'dí*	*ʔbáyč'iw=da,*
so	then	that	**3'AGT**	good	groomed self=and.then

After **he** had groomed himself,

ti:	*qóyow=da,*
3'AGT	there went=and.then

after **he** had gone there,

tí:to	*qa:pʰét'=wi*	*be:*	*mdí:yaw.*
3'.PAT	orally.spit=and.then	away	was led

he was spit out of there.'

So
Central Pomo *t̪i:* Pronouns

Coreference with subject of the clause

Coreference with subject of higher clause

(like cross-clause reflexives in Icelandic)

Coreference with subject of verbs of speech

(like logophoric pronouns of African languages

but not limited to verbs of speech or thought)

And more: Empathetic Pronouns

Person from whose point of view situation is presented

Empathy

Point of view, perspective

Kuno, Susumo. 1987. *Functional Syntax: Anaphora, Discourse, and Empathy*. Chicago: University of Chicago Press.

Daniel 2015

Culy 2001

long-distance reflexives in logophoric contexts

are a secondary extension of the reflexive function

Toldova 1999

Logophoricity is the primary function

and the reflexive function is its extension

in East Caucasian systems.

Daniel, Michael. 2015. Logophoric reference in Archi. *Journal of Pragmatics* 88: 202-219.

Daniel 2015

In Archi

the same material is the foundation of both logophoric and reflexive contexts:

reflexives contain an additional intensifier.

Daniel 2015

Both logophoric and reflexive uses

of the Archi pronoun

are extensions of the core function of the pronoun

which is to mark the special pragmatic/discourse role of its referent --

extensions that involve grammaticization

of the pronoun in specific contexts

as reflexives and logophoric.

5. The Neighbors

Pomoan, **Yuki, Wappo**, **Lake Miwok**

Yuki, Wappo, Lake Miwok Special 3rd Pronouns

Yuki	AGENT	PATIENT	OBL/POSS
SG	***kip***	***kip(ą)***	***kipat***
PL	***kimo'osiyą***	***kimosiyąt***	

Wappo	SUBJECT=OBJECT	ALIEN.POSSESSOR
SG	***me***	***me-meʔ***
PL	***mesa***	***mesa-meʔ***

Lake Miwok	SUBJECT=POSSESSOR
SG	***hana-***
DU	***hanakoc-***
PL	***hanakon-***

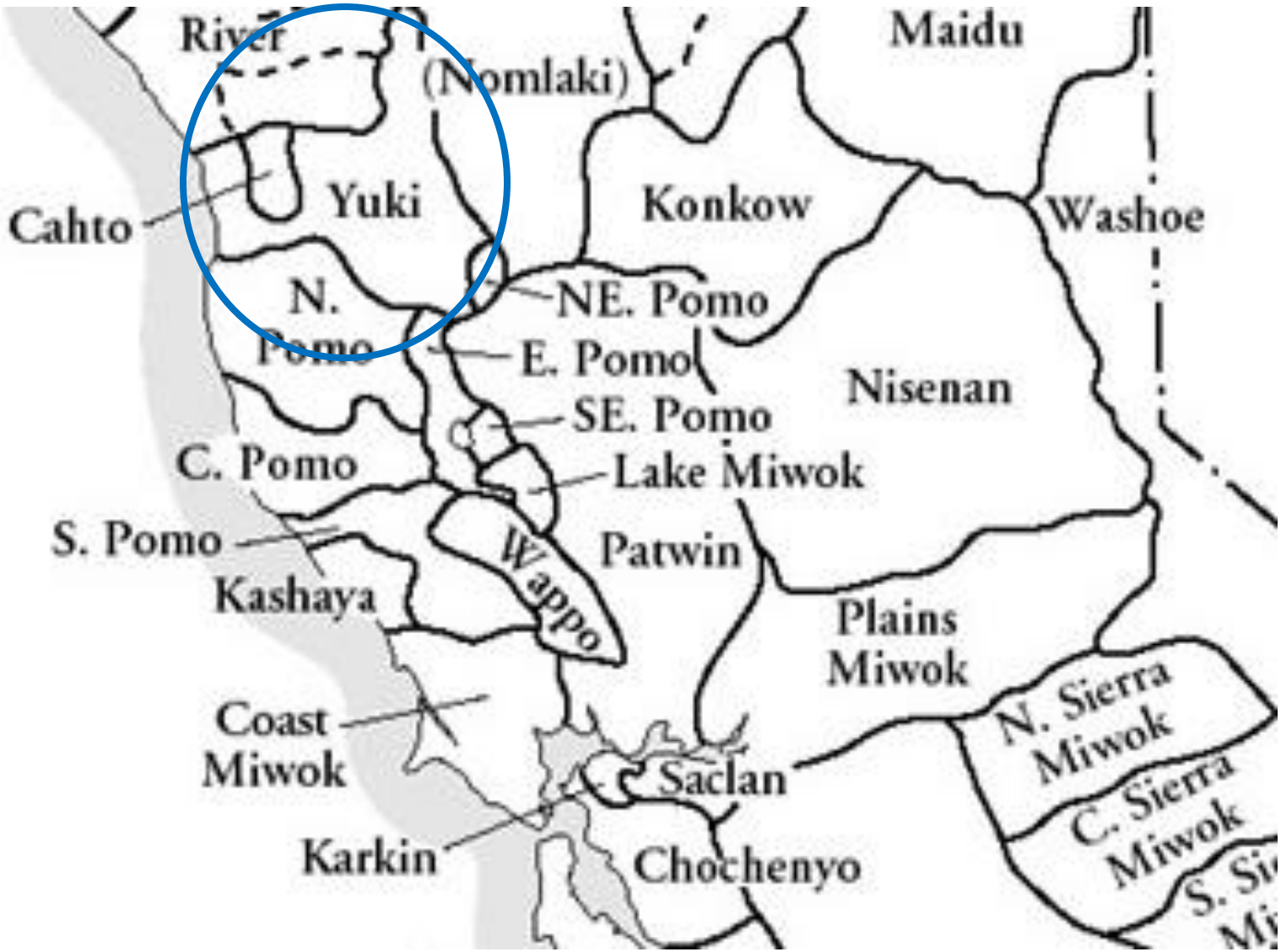
5.1 Yuki

Yuki

Immediately north of Pomoan

3 closely-related languages
or distantly-related dialects

Yuki Proper, Coast Yuki, Huchnom



Pomoan, Yuki, Wappo, Lake Miwok Areas

Yuki Homeland: Round Valley

Coreference within the Clause

Yuki Basic 3rd Person Possessor

Siniard 1967:7, cited in Balodis 2011:379

Kiʔat	*hąw*	*ʔi:*	*ča:ni=k.*
3SG.POSS	fish	1SG.PAT	give=DECL

‘He gave me **his** (someone else’s) fish’

Balodis, Uldis. 2016. *Yuki Grammar, with sketches of Huchnom and Coast Yuki*. University of California Publications in Linguistics 151. Berkeley: University of California.

Yuki Coreferential Possessor

Balodis 2011: 774, Origins 118

Sąkiṭey	*háye*	***kipát***	*hąpút ʔey*
są=kiṭ=ʔi	hąye	kipat	hąput =ʔi
SAME=then=HEARSAY	now	**3'SG.POSS**	rib=HEARSAY

'And now **his** (own) rib

kípat	*múšp'a*	*k'ąk'ésimil.*
kipat	musp=a	k'ąk-s=mil
3'SG.POSS	wife=PAT	make-CAUS=FIN

(he) made come into existence as **his** (own) wife.'

Coreference beyond the Clause

Yuki Basic 3rd Person
Disjoint Reference with Higher Subject

Są	*ki*	*mátlikiṭ*	***kiʔa***	*hulk'óʔa*	*k'óli*
są	ki	mat?-tl=kiṭ	ki=a	hulk'oʔi=a	k'ol
SAME	3PL.AGT	do-TR=then	**3SG.PAT**	Coyote=PAT	kill

'And when they had done this to Coyote after (they) had killed **him**,

sąkiṭ ʔey	*kipąwwap*	*ko:lítimil.*
są=kiṭ =ʔi	kipąw=ap	koʔ-lit=mil
SAME=then=HRS	back=LAT	go-DIR=FIN

(they) went back.'

Ralph Moore, Yuki speaker

Philip M. Jones, Photographer, Phoebe Hearst Museum of Anthrpology

Yuki Coreference with Higher Subject

"In the rock cracks the eyes shall enter,
with the tears and the brains they shall enter"

ʔímeymil	***kípa***	*k'o:lísi.*
ʔim=mil	kipą	k'ol-s
say=FINITE	**3'SG.PAT**	kill-CAUSATIVE

(he) said while (they) killed **him**.'

Yuki Coreference in Adverbial Clause

Seʔéy	*hą́ye*	***kip***	*ʔá:mop*
si=ʔi	hąye	kip	ʔah-mąʔ=op
NEW=HRS	now/again	**3'SG**	seize-DIR=as

'Then as (they) moved to seize **him**,

lilkú:ti:ʔ	*pilą́:t*	*namtlnamlikí*	*ʔi:číʔąkmil*
lil-kut=iʔ	piląt	nam-tl=namli=ki	ʔiṭ-ąk=mil
stone-start=in	sun	lay-TR=DEP=that	JXT-SML=FIN

(he) went near where he had laid the sun at the base of a rock.'

Yuki Coreference in Relative Clause

Hulk'oʔi	***kip***	*kíwsi ʔey*	*k'anhaʔámilmil*
hulk'oʔi	kip	kiw-s=ʔi	k'anha-ʔamil=mil
Coyote	**3'SG**	ask-CAUS=HEARSAY	not.answer=FIN

'(He) did not answer what Coyote was asking **him**.'

‘Taykómo instructed Coyote what to ordain for people everywhere.’

‘And thus he$_i$ (Taykómo) had him$_j$ (Coyote) instruct **his**$_j$ (Coyote’s) wife to be good and stay at home and take good care of the children.’

Simeyʔéy	***kipat***	*músp’a*	*tat*	*šúʔhinik*
si=mi=ʔi	kipat	musp=a	tat	šuʔ-h-nik
NEW=X=HRS	**3’SG.DAT**	woman=PATIENT	good	sit-DUR-NEC

‘**His**$_i$ wife to be good and stay home

tat	*hálč*	*tatí:yaŋk*	*míhin(i)k ʔey*
tat	halč	tat-y-am=k	mih-nik=ʔi
good	children	good-PROG-X=DECL	be-NEC=HEARSAY

to take good care of the children

ʔim	*nak’áhisimil*	***kipat***	*músp’a.*
ʔim	nak’oh-s=mil	kipat	musp=a
thus	teach-CAUS=FIN	**3’SG.DAT**	woman=PATIENT

(he$_i$) had (him$_j$) instruct **his**$_j$ wife.’

5.2 Wappo

Pomoan, Yukian, Wappo, Lake Miwok Areas

Possible distant relative of Yuki,

but similarities may be due to contact

Co-reference within the Clause

Wappo Coreferential 3rd Person Forms within the clause

Mé-te-wélalo'-kwen

3'SG-toward-return-when

'When he came back,

mé-*misi* *tó'ta'*.

3'SG.POSS-wife whipped

(he) whipped **his** wife.'

Wappo Coreferential 3rd Person
beyond the clause

Mé*-*te*-*wélalo'*-*kwen

3'SG-toward-return-when

'When **he** came back,

mé-*misi* *tó'ta'*.

3'SG.POSS-wife whipped

(he) whipped his wife.'

Wappo Coreferential 3rd Person
beyond the clause

Céphi	***me*-*cám:taʔ***	*háhtaʔ*.
3SG.SUBJECT	**3'SG**-do	say

'He said **he** did it.'

Wappo Coreference
in Coordinate Clauses

Wappo Coreference in Conjoined Clauses

Radin 1929:34

Cehéteski	*méce*	*pat:a*	***me-naṭ'óaki***
he carried	arrow	and then	**3'**-arrived

'He carried arrows and then **he** arrived.'

Čóhoki	*éwe*	***me-k'ál:ta.***
he came	spear	**3'**-took

'He came and **he** took (his) spear.'

Later 20th century: Laura Somersal,

one of the last fluent speakers,

bilingual in Southern Pomo

Co-reference not across coordinate conjunction or sentence boundaries

thus more like Pomoan and Yuki

Wappo conjunction: Basic anaphoric pronoun

Laura Somersol, speaker

Cèl’	*cèṭa*	*tòm’*	*ʔòk’o:-t-i*	*wéy’-ah-khiʔ,*
then	there	fawn	child-INDEFINITE-NOM	die.PL-PUN-FAC

‘There the deer children died

wèyh	*cè*	*kèwa’*	***cèko:ti***	*ma-čú-kheʔ.*
then	that	next.day	3PL.SUBJECT	in-burn-get

and the next day **they** were burned up.’

Laura Somersal,

Wappo speaker

5.3 Lake Miwok

Lake Miwok

Adjacent to Pomoan and Wappo

Utian family,
geographically separated from most relatives

Utian never considered related
to Pomoan, Yuki, orWappo

Pomoan, Yukian, Wappo, Lake Miwok Areas

Clear Lake

Co-reference

only within the Clause

Lake Miwok Possessive Prefixes

Callaghan 1963:76

ʔiṭi-*háju* *ʔúṭe* ‘He sees **his** (somebody else’s) dog.’

hana-*háju* *ʔúṭe* ‘He sees **his own** dog.’

Lake Miwok Basic and Co-referential Possessives

Callaghan 1978:70.151

Hín:at	*ʔi-ʔá:ṭaw*	*weno*	***ʔiṭi-pápa-n.***
that.time-ALL	he-says	it.is.said	**3SG.POSS**-gf-NOM

'Just then, **his** grandfather said something.

Hana-các:o	*ʔí:lip.*
3'SG.POSS-grandson	teases

(He) was teasing **his** grandson.'

Lake Miwok Complement Clause
No Coreferential Forms

ʔakal	*ne*	*ʔolé:-nawa-ʔaye-n*	*né:nut*	*kela*
then	this	Coyote-Old.Man-one-NOM	knows	already

‘Old Man Coyote already knew

ne	*hú:ya*	*wulá:hinte-c*	***ʔiṭi**-các:o-n.*
this	beads	steals-REL-ACC	**3SG.POSS**-grandhild-NOM

that **his** grandson had stolen the beads.’

Lake Miwok Relative Clause
No Coreferential Forms

Hínti-c ***koc****-ʔuṭé:hintec*
what-ACC **3DU**-see-REL-ACC
'Whatever **they** saw

má:-c *ʔiṭi* ***koc****-yóp:ut* *mát* *súkuh.*
that-ACC 3SG.OBJ **3DU**-feed-ALL there-ALL is.situated.
they fed him, whatever was there.'

6. Sequence of Developments?

Apparently

The development of an additional third person category was stimulated by contact.

But forms were not transferred.

Pomoan ***ṭi***/***ma***- Yuki ***kip***, Wappo ***me***-, Lake Miwok ***hana***-

Even the Yuki and Wappo forms differ

though the languages are possibly related

Yuki	AGENT	PATIENT	OBL/POSS
SG	***kip***	***kip(ą)***	***kipat***
PL	***kimo'osiyą***	***kimosiyąt***	

Wappo	SUBJECT=OBJECT	ALIENABLE.POSSESSOR
SG	***me***	***me-meʔ***
PL	***mesa***	***mesa-meʔ***

Possible Sources of Markers

within the languages

Yuki

similarity of ***kip*** etc. to distal demonstratives *kiʔ* with increment -*p*

Wappo

similarity of ***me*** to reflexive *maiʔ*

(1st and 2nd person coreference shown with reflexive *maiʔ*)

Lake Miwok

Unclear source of form.

Relative languages outside of the area do not distinguish this category at all.

Facilitating Circumstances

Third person pronouns

are not used for continuing topics

in any of these languages,

so rarer in any case.

Basic third persons

are actually demonstratives:

Central Pomo, Yuki, Wappo, Lake Miwok

Possession not specified as often
in these languages.

So less obligatory marking
to reanalyze.

Central Pomo

In spontaneous speech,
mention of body part possessors
is surprisingly rare.

Speakers add possessors
in English translations.

Body Parts without Possessors

Frances Jack, speaker, p.c.

Qʰamá *mabó-w=wiya.*

foot swell-PFV=PERSONAL.AFFECTEDNESS

‘(**My**) **foot** swelled up.’

ʔo *ʔṭʰál.*

tooth hurt

‘(**My**) **tooth** hurts.’

No Possessors

Alice Elliott, speaker

Má:t͡ʃa ʔmí: ʔe ṭʰé=ya ʔul dóq’ yó-hi

woman there COP mother=TOP now meet go-and

‘The mother then goes to meet (**her**) **daughter** and

šá: *da-čé-hi čá-w de-w.*

arm palming-grab-and house in lead-PFV

grabs (**her**) **arm** and leads her in.

Béda ***t͡ʃʰana*** *hná:m-aʔ-ya-w,* *t͡ʃ’áléya.*

here **hand** tie.around-IPFV.PL-PASS-PFV bead

Here beads are tied around (**her**) **hand**.’

Alice Elliott, speaker

No Possessors

Frances Jack, Florence Paoli, speakers, p.c.

T̯ʰaná *da-:sé:-c’-hi* *maʔá* *čʰú-m.*

hand palming-wash-SML-SAME food eat-IMPER

‘Wash (**your**) **hands** and come eat’

Šná: *ʔel* *čadó-:ʔw-an* *šk’e* *wá-:ʔw-ad-an-yan.*

head ART wear-around-IPFV only walk-around-IPFV-IPFV-SPEC

‘She always wore a bandana on (**her**) **head**.’

No Possessors

Frances Jack, speaker, p.c.

Háyu	***bá:***	*pʰlí-pʰličʼ.*
dog	**tail**	RDP-wag

‘The dog’s wagging (**his**) **tail**.’

No Possessors

Frances Jack, speaker, p.c.

T̑ʰaná=*wi* *šṭ'úʔ-du-w* ***ha***-*w* *m-čá-t̑aq-ʔči-w.*

hand=with fill-IPFV-IPFV **mouth**-in PL-throw-PL.ACT-SML-PFV

'He filled (**his**) **hand** and threw them into (**his**) **mouth**.'

(There was a bee sitting in one handful of berries,
and it stung him. For a long time he couldn't eat.)

Há *ʔel* *mabów* *ʔó-m.*

mouth the swollen wear-ESSIVE

'(**His**) **mouth** was swollen.'

Possession of other objects also often not specified

but added by speakers in English translations

Alienable Possessions without Possessors

Frances Jack, speaker, p.c.

Kápo:t̪e *ʔel* *šé-t̪e:-bíy-t̪a-m-meʔ.*

coat ART put.on-PL.ACT-SML-MULT.EV-MULT.AG-PL.IMPER

‘Put (**your**) **coats** on.’

Bal *k’ú:* *ʔel* ***lóq’*** *ša-lól-č’i=ka*

this child ART **thing** pulling-remove-SML=INFERENTIAL

‘The child apparently took (**her**) **clothes** off.’

Areal discourse pattern

Wappo

Possessors often not mentioned

Sawyer & Somersal 1977: 106.11

Cèl’ te-hùʔ

then 3-head

‘Then his head

***hèyma**-h* *šu-koloʔ-uh* *ma-wíl-taʔ*.

packbasket-LOC bottom-flat-LOC in-put-PAST

she put down in the bottom of (**her**) **pack basket**.’

Yuki

Possessors often not mentioned

Balodis 2016: 126, 189

Są́=ʔi	*kiʔ-mas*	***hay**=k*	*p’oy-tl . . .*
SAME-HSY	DST=DISTR	net.sack=INESSIVE	put-TR

‘And putting them into (**his**) **net sack**, . . .’

. . .

Sąʔi	***kip=ąt***	***háy**=ki*	*k’o:-tl=ʔi*	*. . .*
SAME=HSY	**3’=BEN**	net.sack=IN	be.in=TR	

‘And putting it into **his** **net sack** [he took it off.]’

Transfer of Structure without Substance?

Northern California contact situation

Small communities, intermarriage

so competent early bilinguals

No obvious differences in prestige

among languages

But cultural tradition

of not mixing languages

Hypothesis

Trudgill, Dahl, Dale and Lupyan, etc.

Greater Complexity

in small communities

with dense social networks

over long periods of time

Dahl, Östen. 2004. *The Growth and Maintenance of Linguistic Complexity*. Benjamins.

Dahl, Östen. 2017. Polysynthesis and complexity. *Oxford Handbook of Polysynthesis*. Michael Fortescue, Marianne Mithun, and Nicholas Evans, eds. 19-29. Oxford.

Dale, Rick and Gary Lupyan 2012. Understanding the origins of morphological diversity: the Linguistic Niche Hypothesis. *Advances in Complex Systems* 5.3-4:1-16.

Lupyan, Gary and Rick Dale 2010. Language structure is partly determined by social structure. *PloS one* 5.1.e.8559.

Trudgill, Peter 2011. *Sociolinguistic Typology: Social Determinants of Linguistic Complexity.* Oxford.

Trudgill, Peter 2017. The anthropological setting of polysynthesis. *Oxford Handbook of Polysynthesis*. Michael Fortescue, Marianne Mithun, and Nicholas Evans, eds. 186-202. Oxford.

Complexity Increase

with intense, longstanding bilingualism

Complexity Decrease

with substantial proportion of untutored adult learners

Comparative Functions

Proto-Pomoan

Empathetic Pronouns

Coreference within the clause with subject

Coreference across clauses with higher subject of any verb

Within indirect quotations without overt verb of saying

Yuki and Wappo

Coreference within the clause with subject

Coreference across clauses with higher subject of any verb

Lake Miwok

Coreference only within the clause with subject

The Empathetic Function

Only described

for Northern Pomo and Central Pomo

But these are the only two languages

for which much conversation has been recorded.

And the empathetic function without coreference

appears predominantly in conversation

to portray the point of view of another participant.

Take-away

We can learn more

about why languages are the way they are

if we can disentangle how they take shape step by step,

stimulated by both internal and external forces.

The role of contact is becoming ever clearer

in shaping structure around the world.

But uncovering it will depend on good documentation, including conversation.