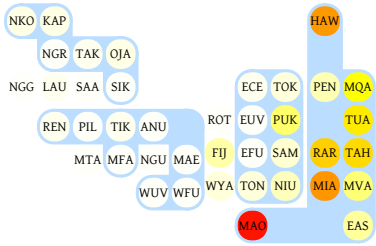
The distribution of Polynesian words

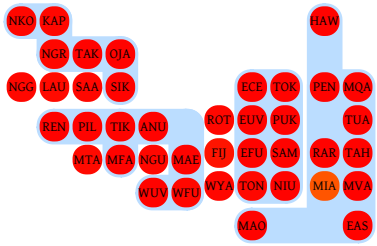
Will Chang

39th Annual Meeting of the Berkeley Linguistics Society
University of California, Berkeley
16-17 February 2013

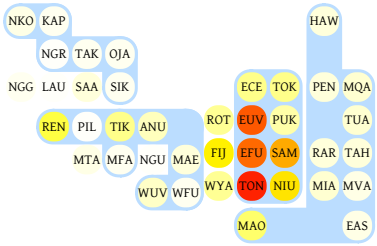
Download slides at
[http://goo.gl/i1L0d].
Please do not distribute.



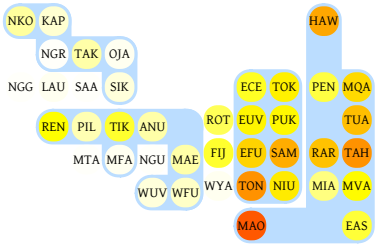
A: 546 etyma



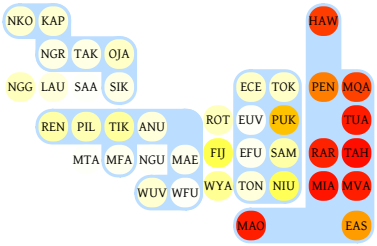
B: 350 etyma



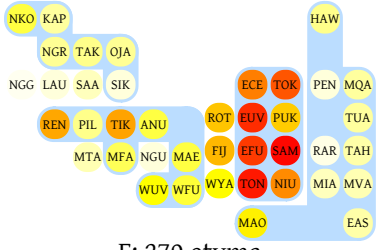
C: 341 etyma



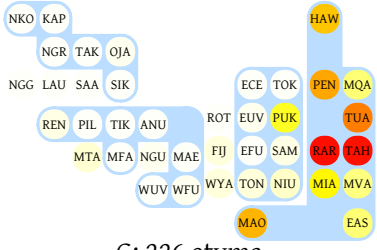
D: 308 etyma



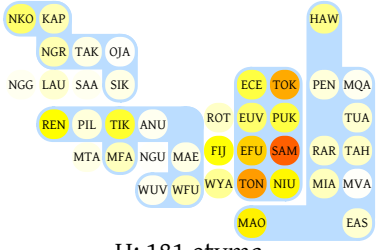
E: 288 etyma



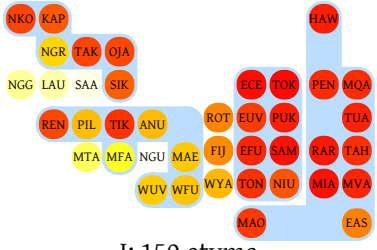
F: 279 etyma



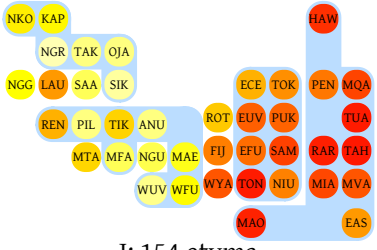
G: 226 etyma



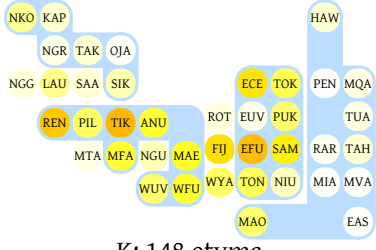
H: 181 etyma



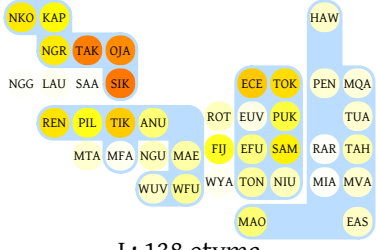
I: 159 etyma



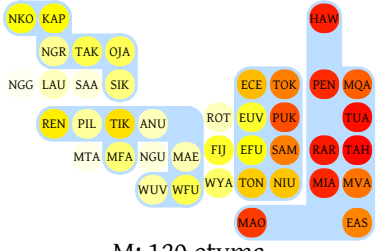
J: 154 etyma



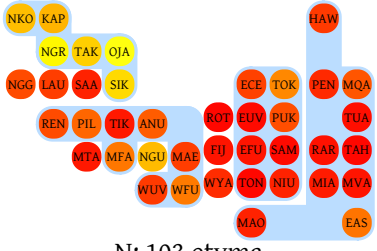
K: 148 etyma



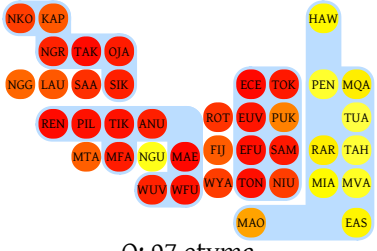
L: 138 etyma



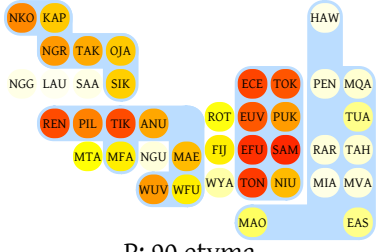
M: 120 etyma



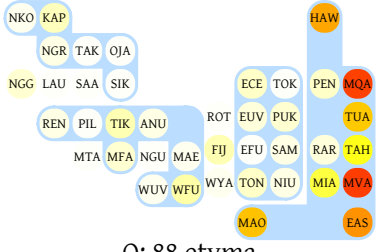
N: 103 etyma



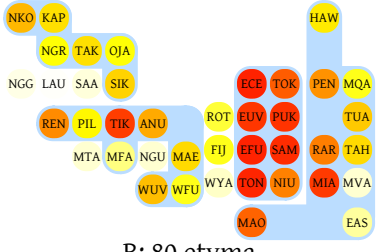
O: 97 etyma



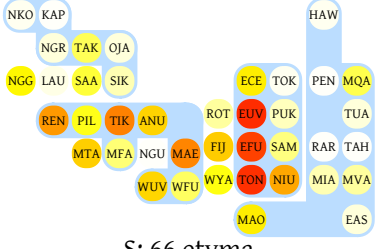
P: 90 etyma



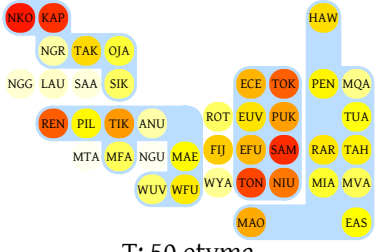
Q: 88 etyma



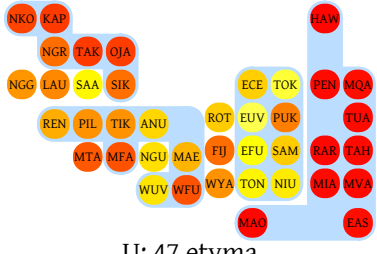
R: 80 etyma



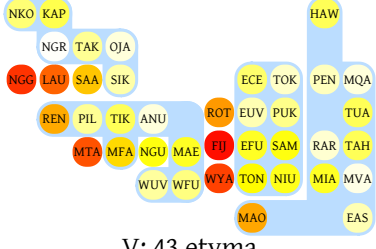
S: 66 etyma



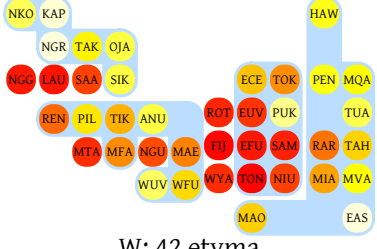
T: 50 etyma



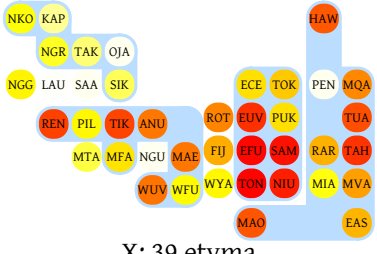
U: 47 etyma



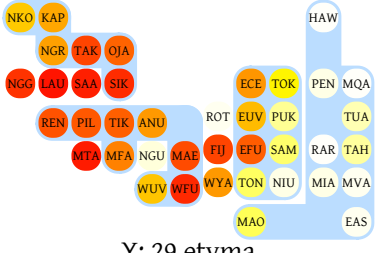
V: 43 etyma



W: 42 etyma



X: 39 etyma



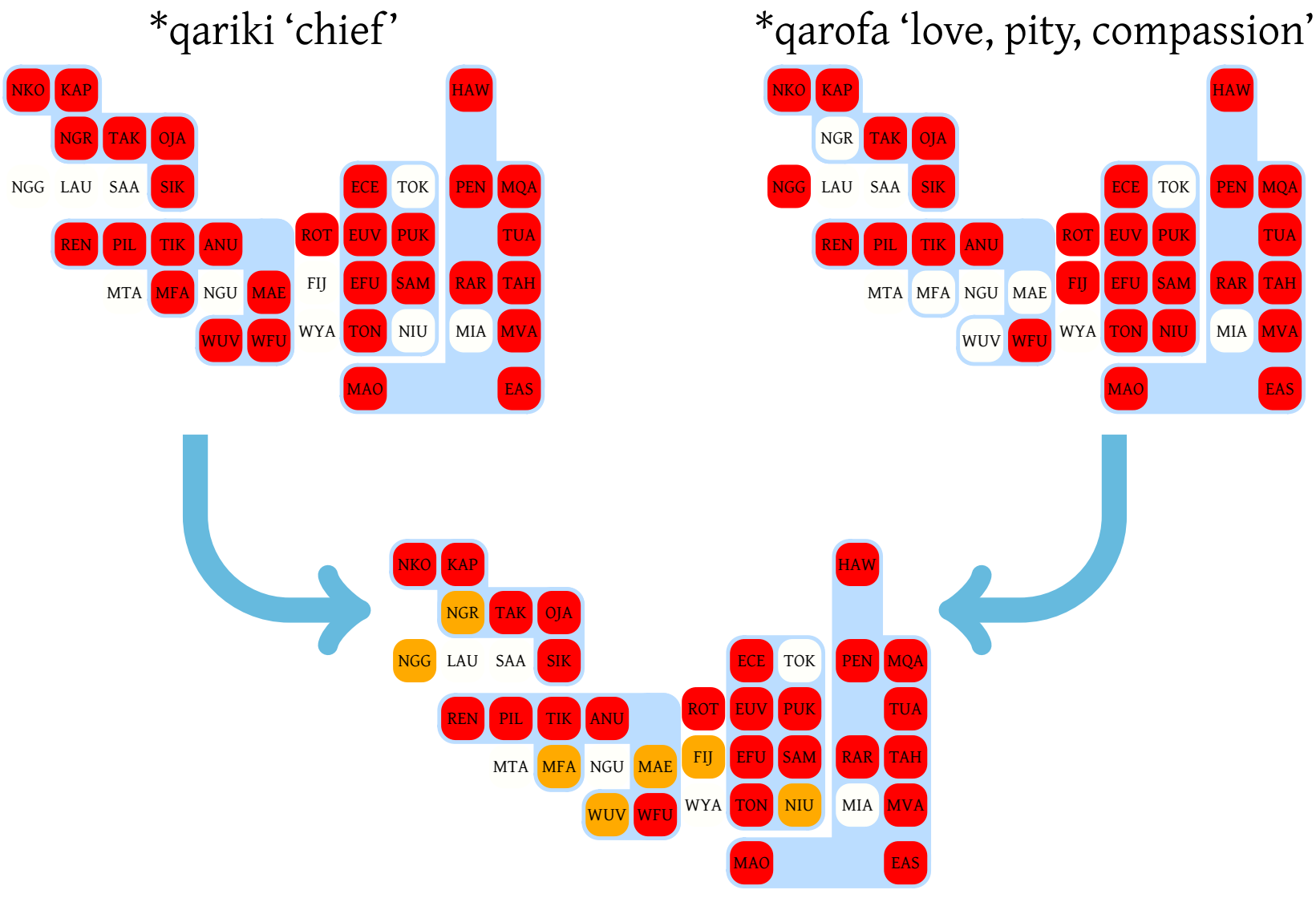
Y: 29 etyma

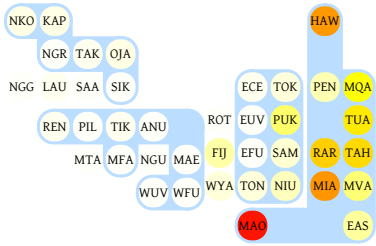
POLLEX (B. Biggs & R. Clark)

A giant comparative word list with 4000+ etyma. Here's the entry for one etymon.

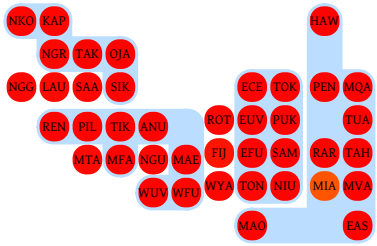
```
.PN     QARIKI
*o      16/9/94.
*PN*    :Chief.
ANU     Ariki. :Chief (Yen).
ECE     Aliki. :A chief (Rby).
EFU     `Aliki. :Chief (Bgs).
EUV     `Aliki. :Chief.
HAW     Ali`i. :Chief.
KAP     Ariki. :Chief (Ebt).
KAP1    Aligi. :Priest (Lbr).
MAE     Ariki. :Chief (Cpl).
MAO     Ariki. :Chief.
MFA     Ariki. :Chief.
MQA     Hak/a`iki/. :Chef, maitre, seigneur (Dln).
MVA     Ak/ariki. :Roi (Jnu).
NIU     Iki. :Chief.
NKR     Aligi. :Priest of cult.
OJA     `Ali`i. :Chief.
PEN     Ariki. :Chief.
PUK     Aliki. :Chief, head of a major paternal descent group (Bge).
RAR     Ariki. :Chief.
REN     `Agiki. :Chief.
ROT-    <`Ariki. :Chief (Cwd) B.>.
SAM     Ali`i. :Chief.
SIK     Aliki. :Chief.
TAH     Ariki. :Chief (Obs.).
TAK     Ariki. :Chief, chiefly (Fth).
TIK     Ariki. :Chief, chiefly, become a chief (Fth).
TON     `Eiki. :Chief.
```

Cluster etyma by distribution

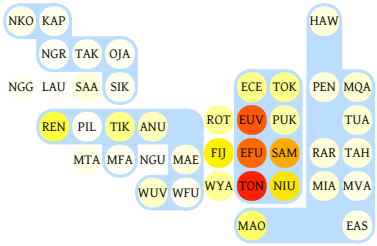




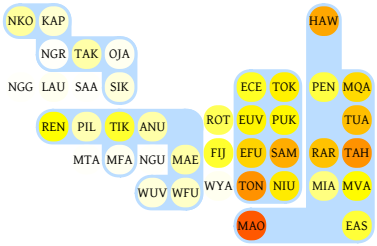
A: 546 etyma



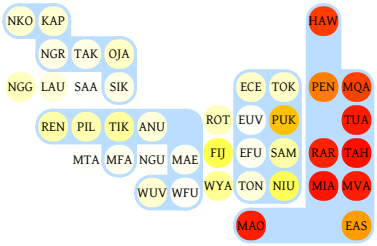
B: 350 etyma



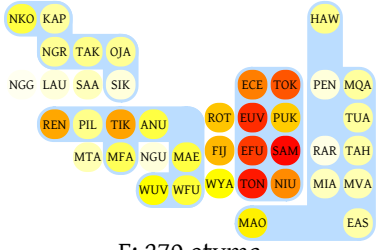
C: 341 etyma



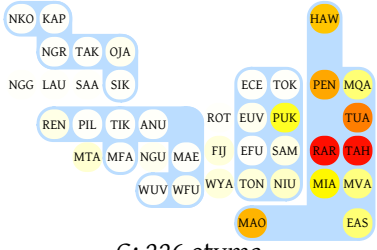
D: 308 etyma



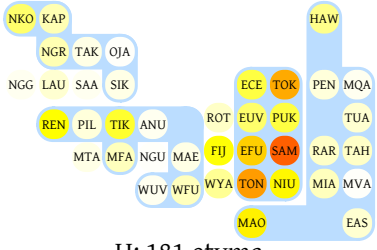
E: 288 etyma



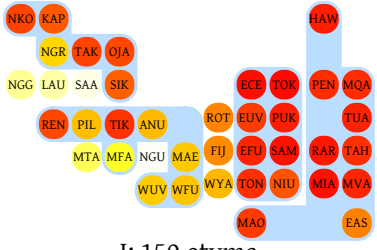
F: 279 etyma



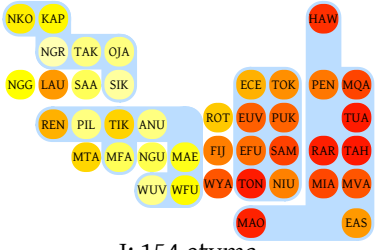
G: 226 etyma



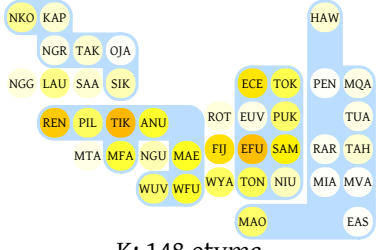
H: 181 etyma



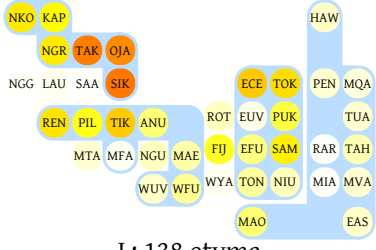
I: 159 etyma



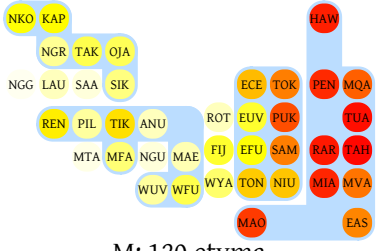
J: 154 etyma



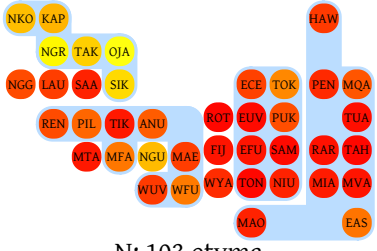
K: 148 etyma



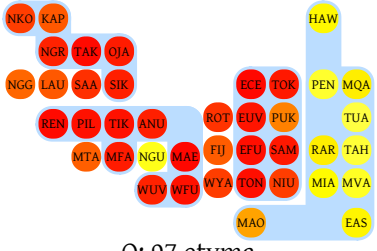
L: 138 etyma



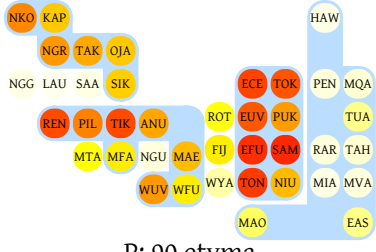
M: 120 etyma



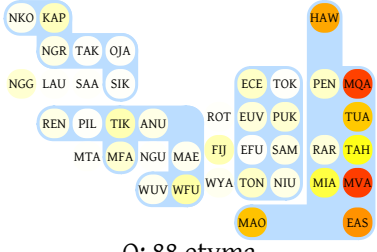
N: 103 etyma



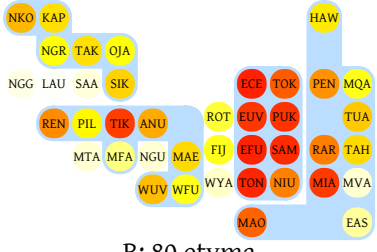
O: 97 etyma



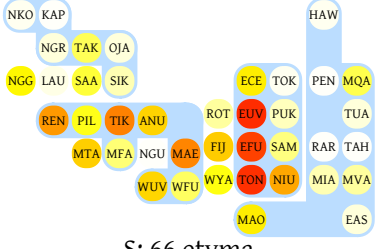
P: 90 etyma



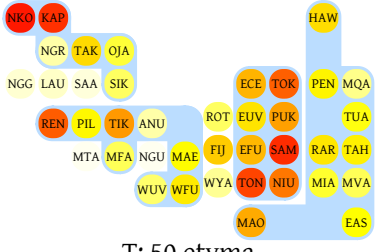
Q: 88 etyma



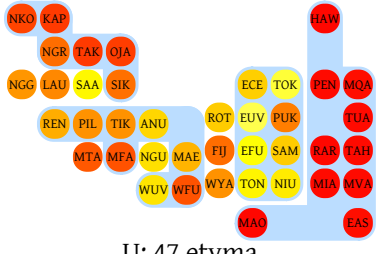
R: 80 etyma



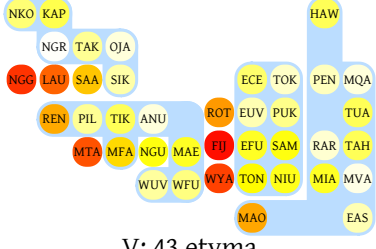
S: 66 etyma



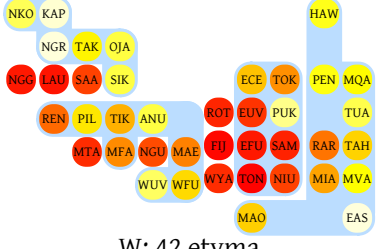
T: 50 etyma



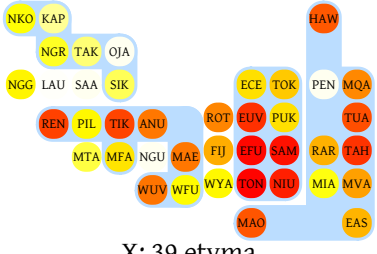
U: 47 etyma



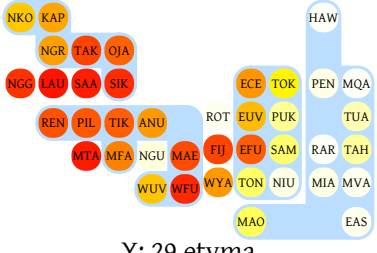
V: 43 etyma



W: 42 etyma

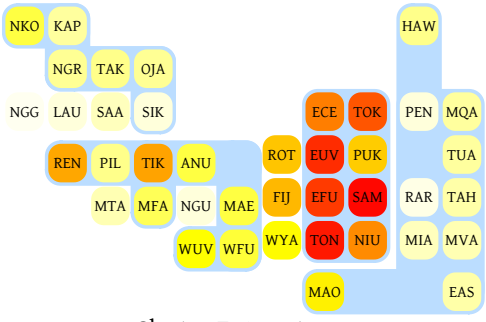


X: 39 etyma

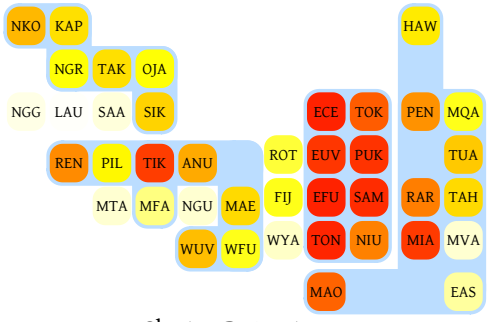


Y: 29 etyma

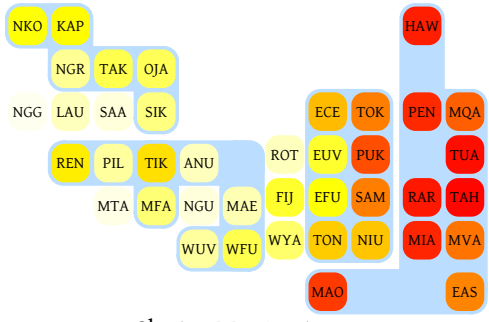
East-West gradients



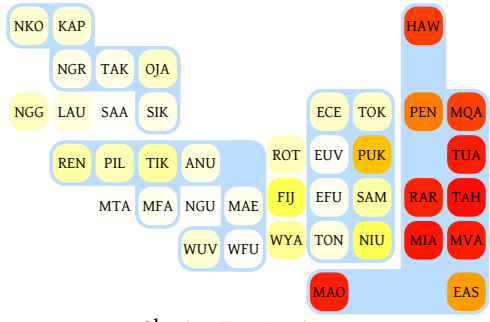
Cluster F: 279 etyma



Cluster R: 80 etyma

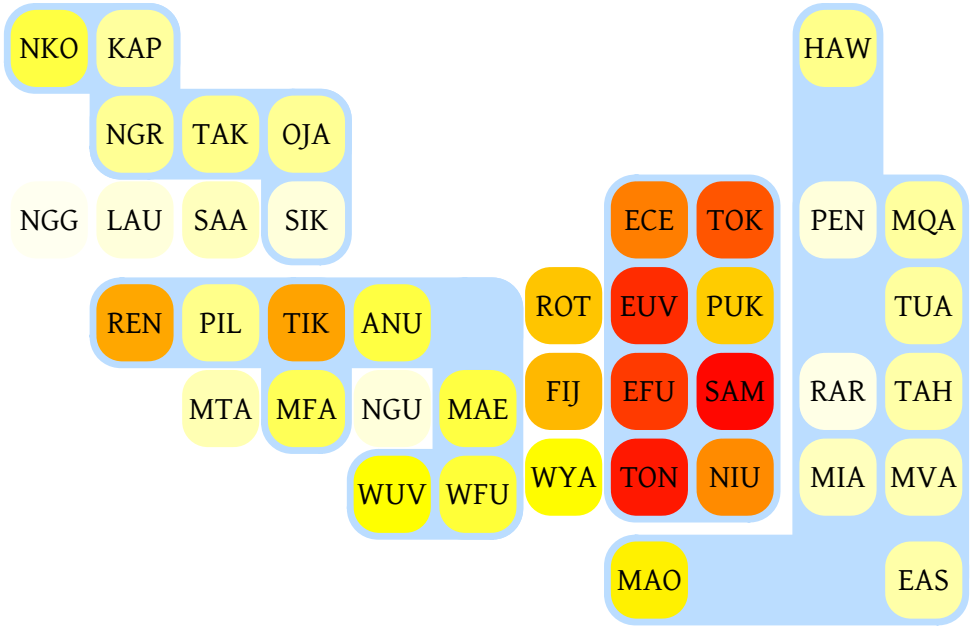


Cluster M: 120 etyma



Cluster E: 288 etyma

Cluster F: Western Polynesia



Cluster F: 279 etyma

Interpret using:

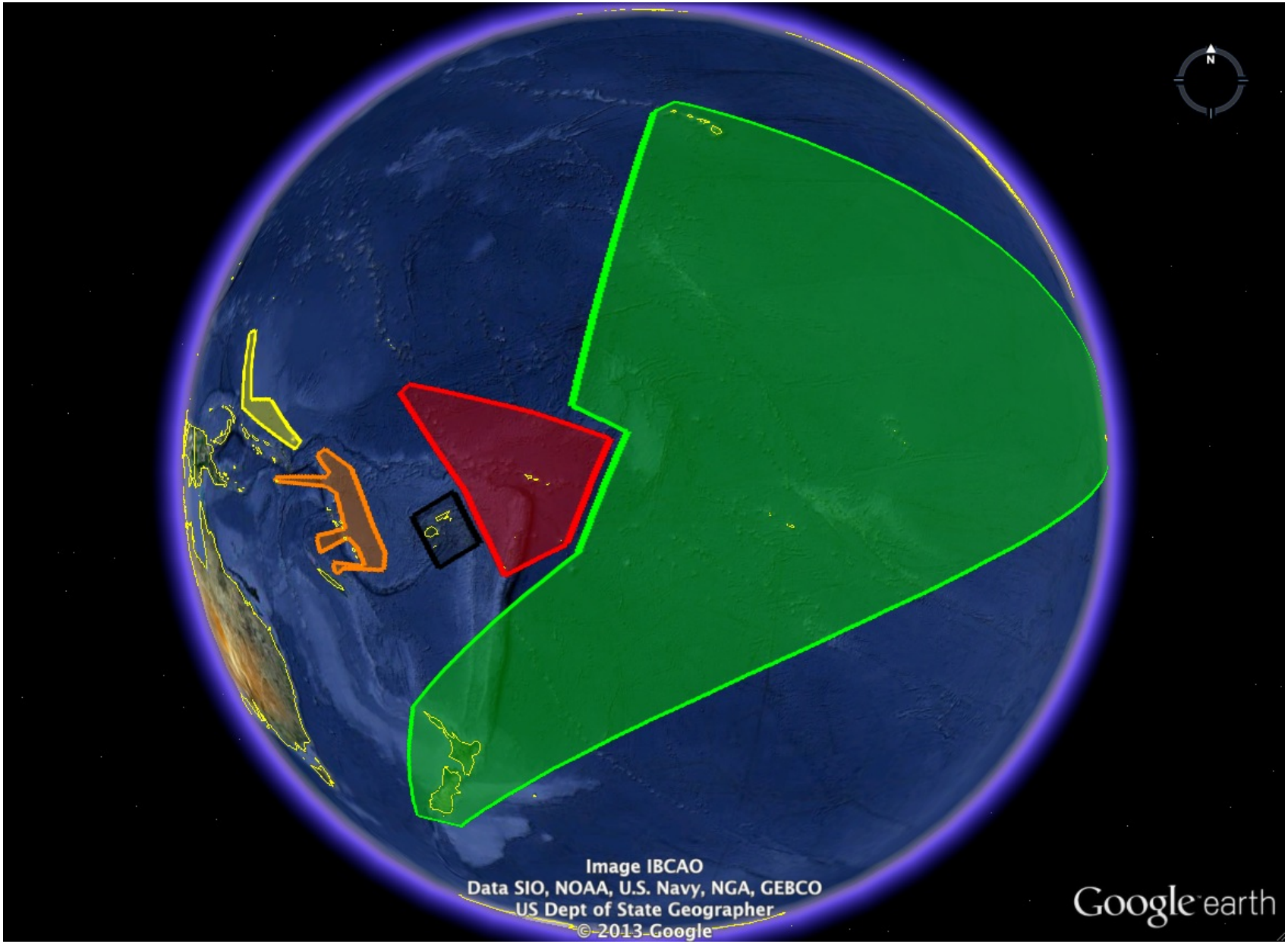
- Reconstructed meanings
- Geography and linguistic classifications
- Sound correspondences in modern languages
- Irregular reflexes of PPn *h

Etyma of Cluster F: most probable 40

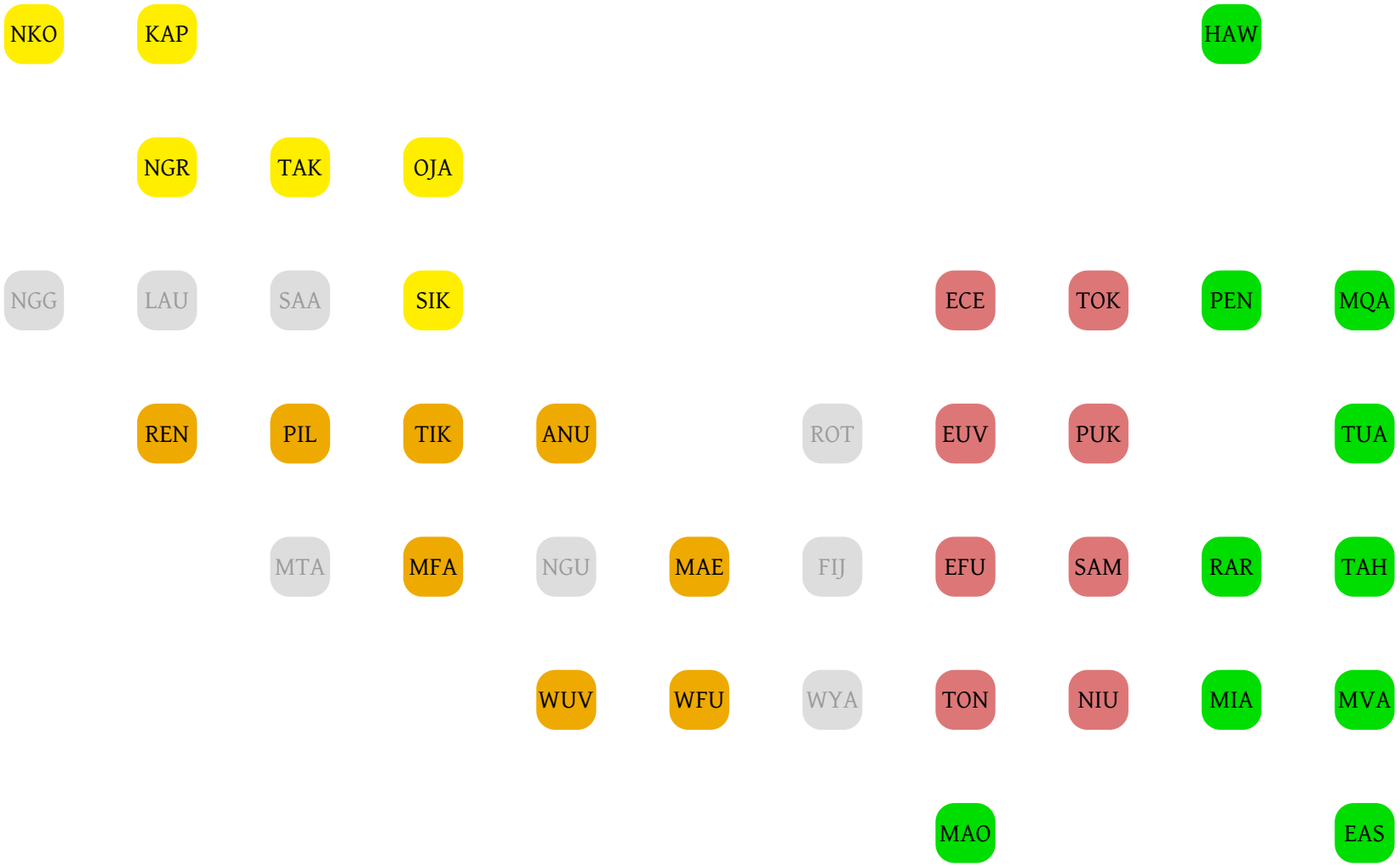
PPn form	gloss
tumutumu	rounded and blunt
patu	callus, lump, tumour
fiitaʔa	be tired, harassed
mala	disaster, misfortune
kita	1sg free form
kelemutu	earthworm, grub
usu	persistent pain
mafuli	upset, capsized
fakafetaʔi	to thank
taʔalo	beckon, signal with hand
ʔamanaki	hope, expect, prepare (for)
kauwaka	crew of a canoe
kie	kilt or skirt; mat worn as such
wali	to paint or smear on
haŋai	opposite, to be opposite
muri	young, immature
hali	to scrape clean, scoop out
poo	cover with hand, clap, slap, catch
tafaʔakilaŋi	horizon
usu	to set out in the morning

PPn form	gloss
afe	thousand
mama	ring for the finger
telefua	naked
teke	reject, refuse
fakaʔeteʔete	act with caution
fusi	tie together
feʔao	escort, protector, companion ...
kae	but
pone	surgeonfish (Acanthurus sp.)
lafi	keep close to, shelter, hide
-a	noun stativiser
maasoaʔa	Polynesian arrowroot (Tacca sp.)
poto	wise, clever
afuafu	drizzle, light rain
ʔinati	share, portion
suʔa	taste, flavor
kasoa	necklace
tuʔakoi	boundary, division
teŋa	seeds, muscles, testicles
kapu	spread over, surround, envelop

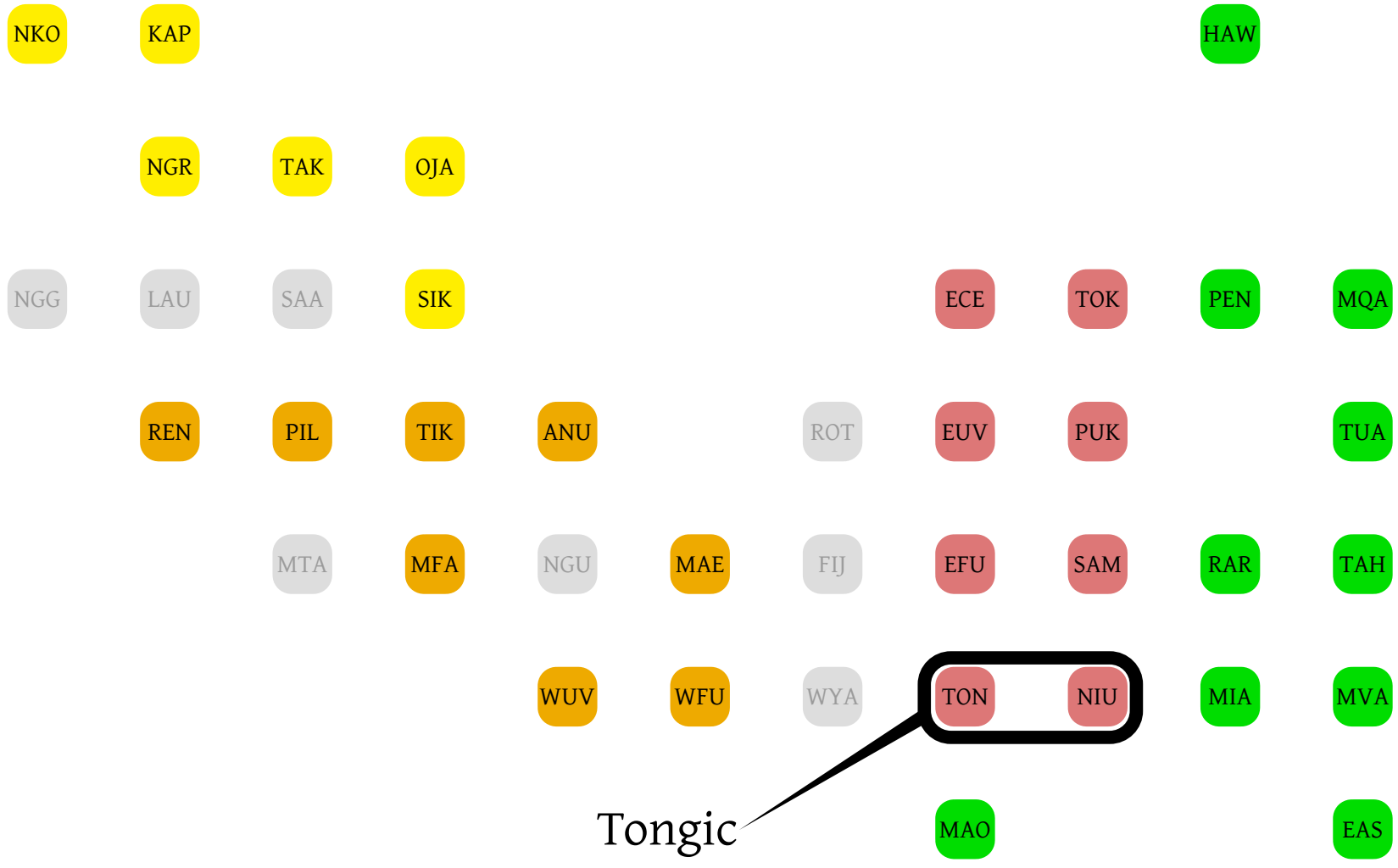
Geography of Polynesia



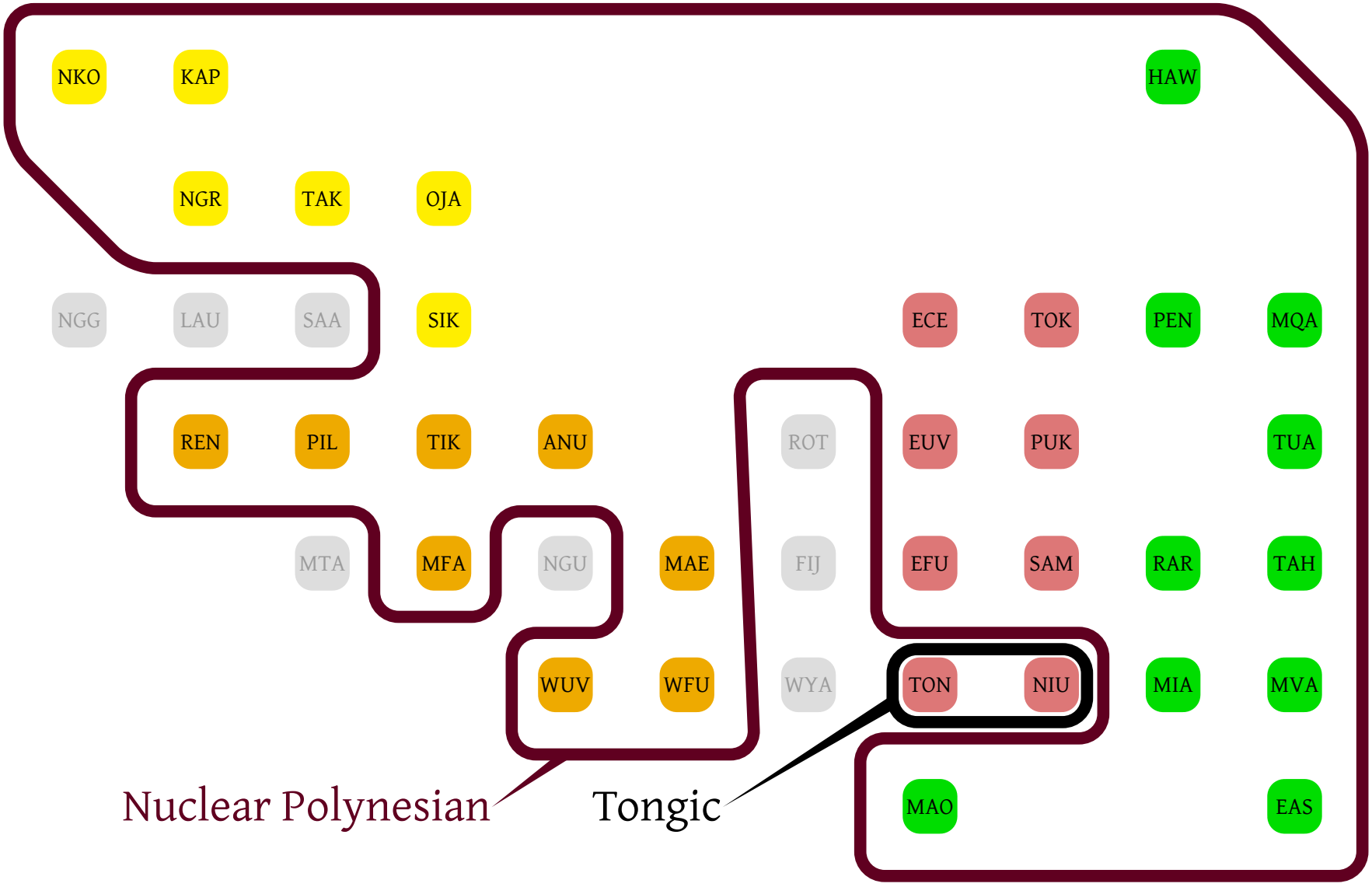
Polynesian subgrouping



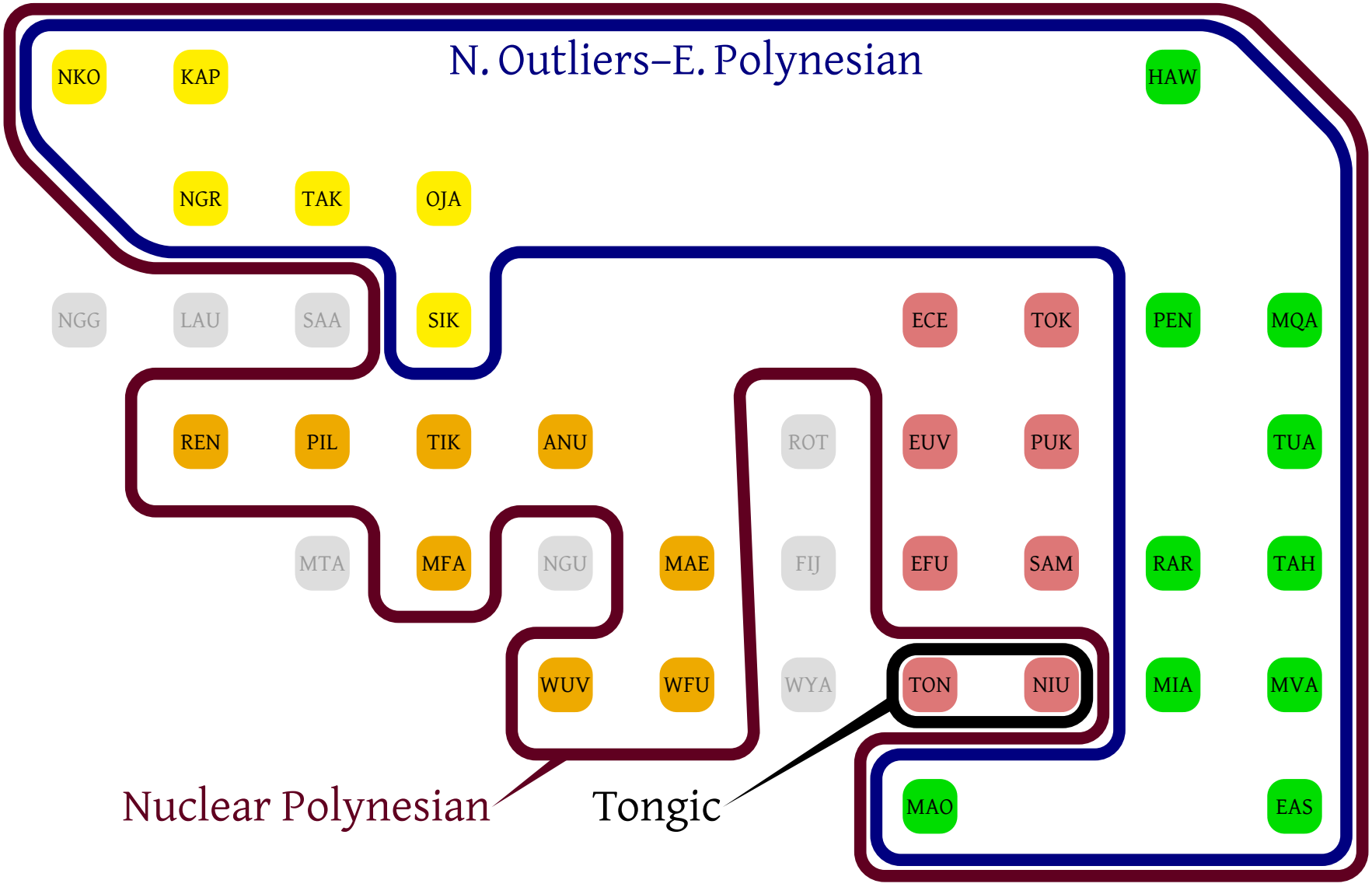
Polynesian subgrouping



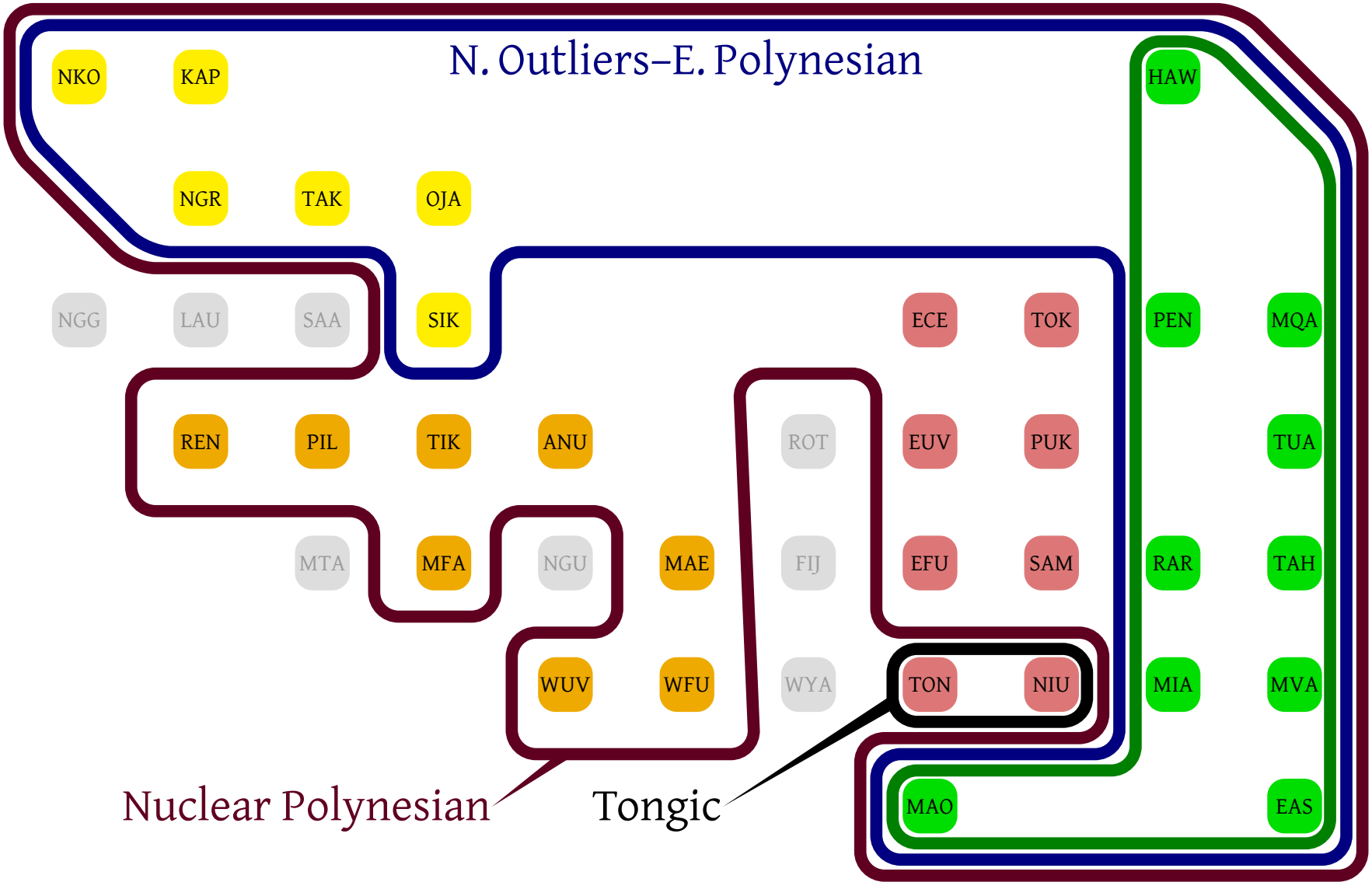
Polynesian subgrouping



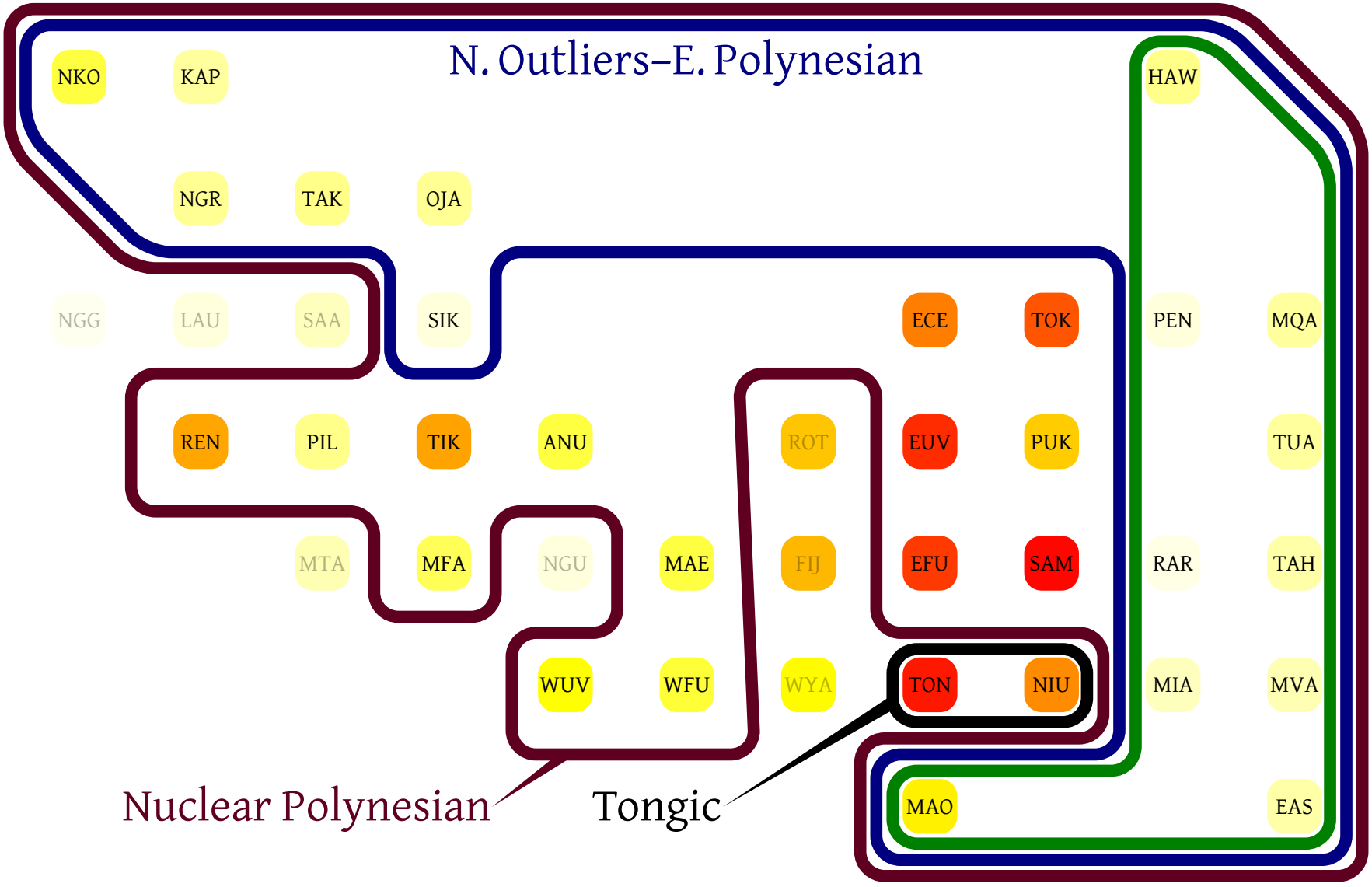
Polynesian subgrouping



Polynesian subgrouping



Polynesian subgrouping

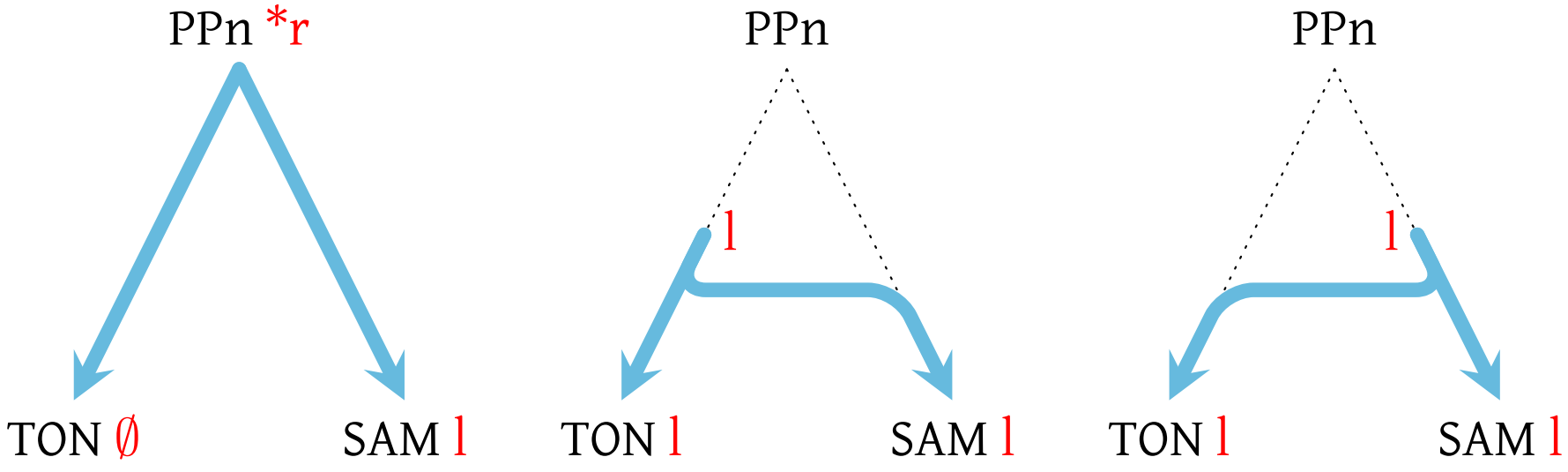


Frequency of reconstructed *r

For each cluster, compute:

$$\text{r-freq} = \frac{\text{\#etyma with TON ∅ corresponding to SAM l}}{\text{\#etyma attested in TON and SAM}}.$$

When do you get ∅:l correspondence?



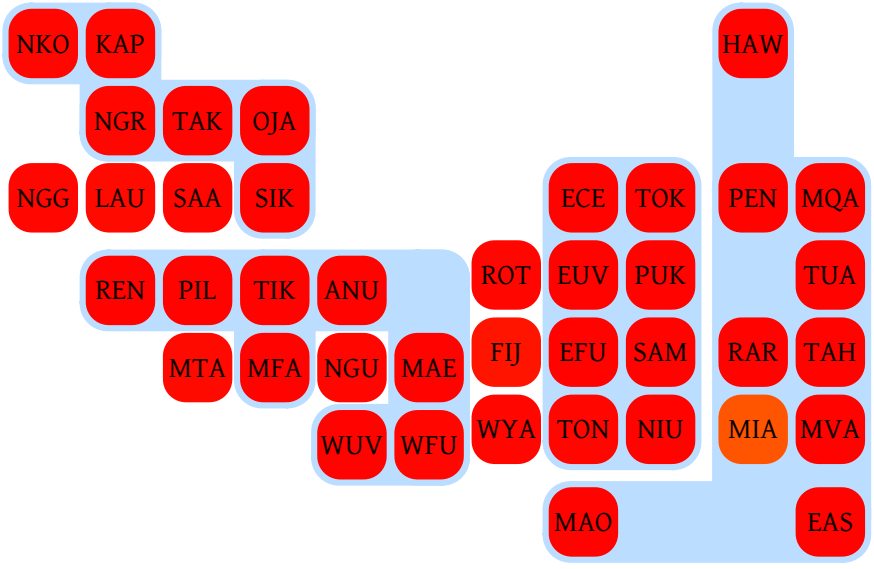
Only when an etymon has not been borrowed between TON and SAM.

Frequency of reconstructed *r

$$\text{r-freq} = \frac{\#\text{etyma with TON l corresponding to SAM } \emptyset}{\underbrace{\#\text{etyma attested in TON and SAM}}_{N}}.$$

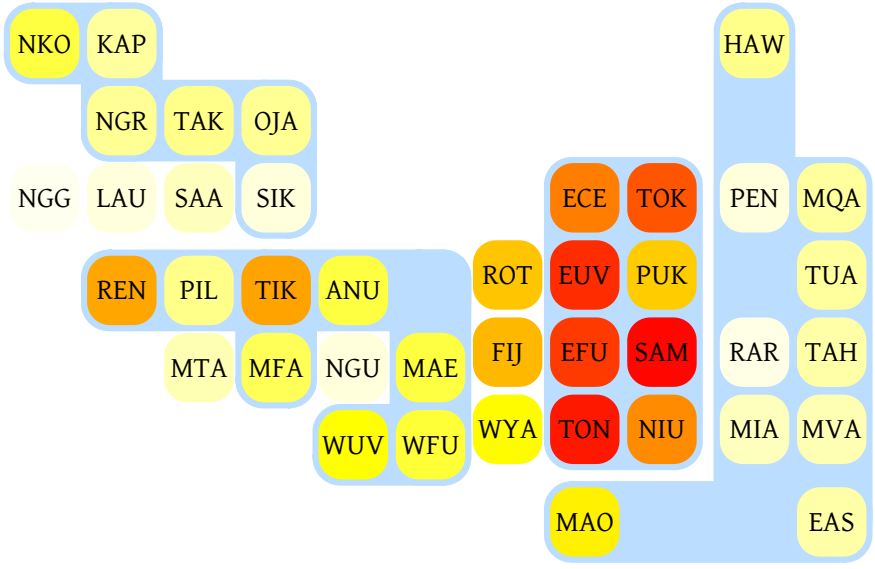
	N	r-freq		N	r-freq
A	1	—	M	31	0.063
B	324	0.070	N	92	0.048
C	143	0.023	O	82	0.021
D	87	0.043	P	61	0.053
E	1	—	Q	0	—
F	240	0.027	R	58	0.023
G	0	—	S	7	—
H	68	0.047	T	33	0.046
I	122	0.038	U	8	—
J	110	0.031	V	3	—
K	8	—	W	36	0.055
L	5	—	X	35	0.013

Frequency of reconstructed *r



Cluster B: 350 etyma

$$\text{r-freq} = 0.070$$



Cluster F: 279 etyma

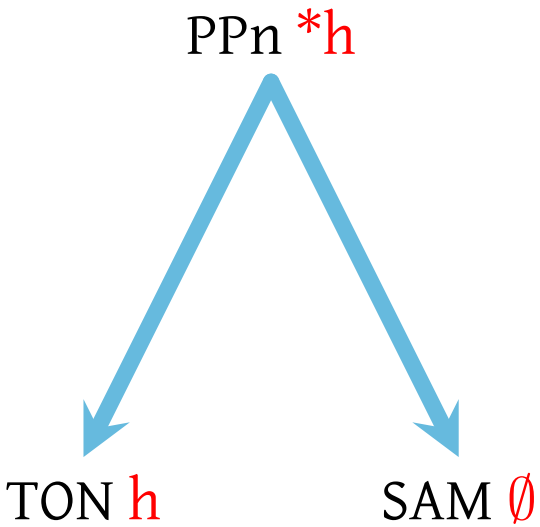
$$\text{r-freq} = 0.027$$

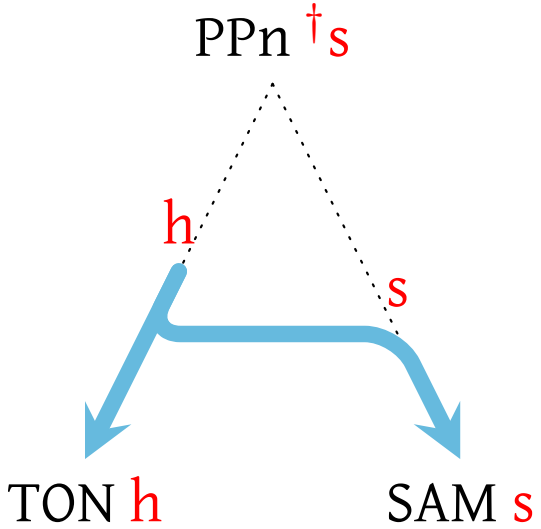
Frequency of reconstructed *h

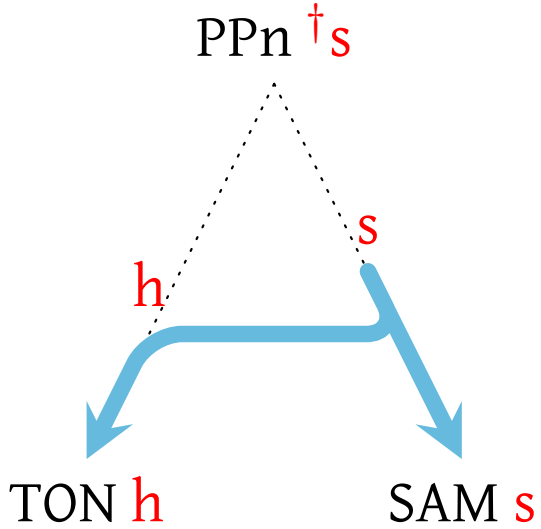
For each cluster, compute:

$$\text{h-freq} = \frac{\#\text{etyma with TON h corresponding to SAM } \emptyset}{\#\text{etyma attested in TON and SAM}}.$$

When do you get h:∅ correspondence?







Cf. TON or TAH hamala
'hammer' > SAM samala

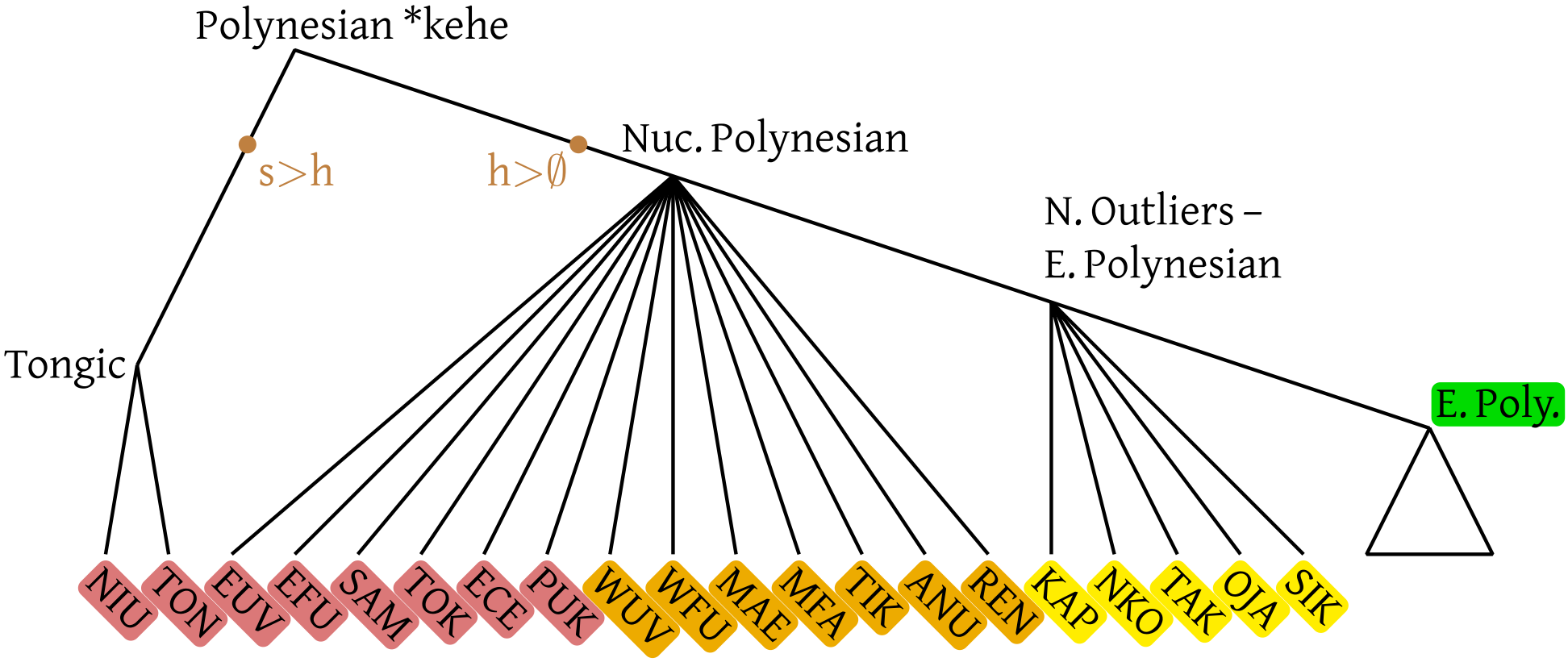
Again, only when an etymon has not been borrowed between TON and SAM.

Frequency of reconstructed *h

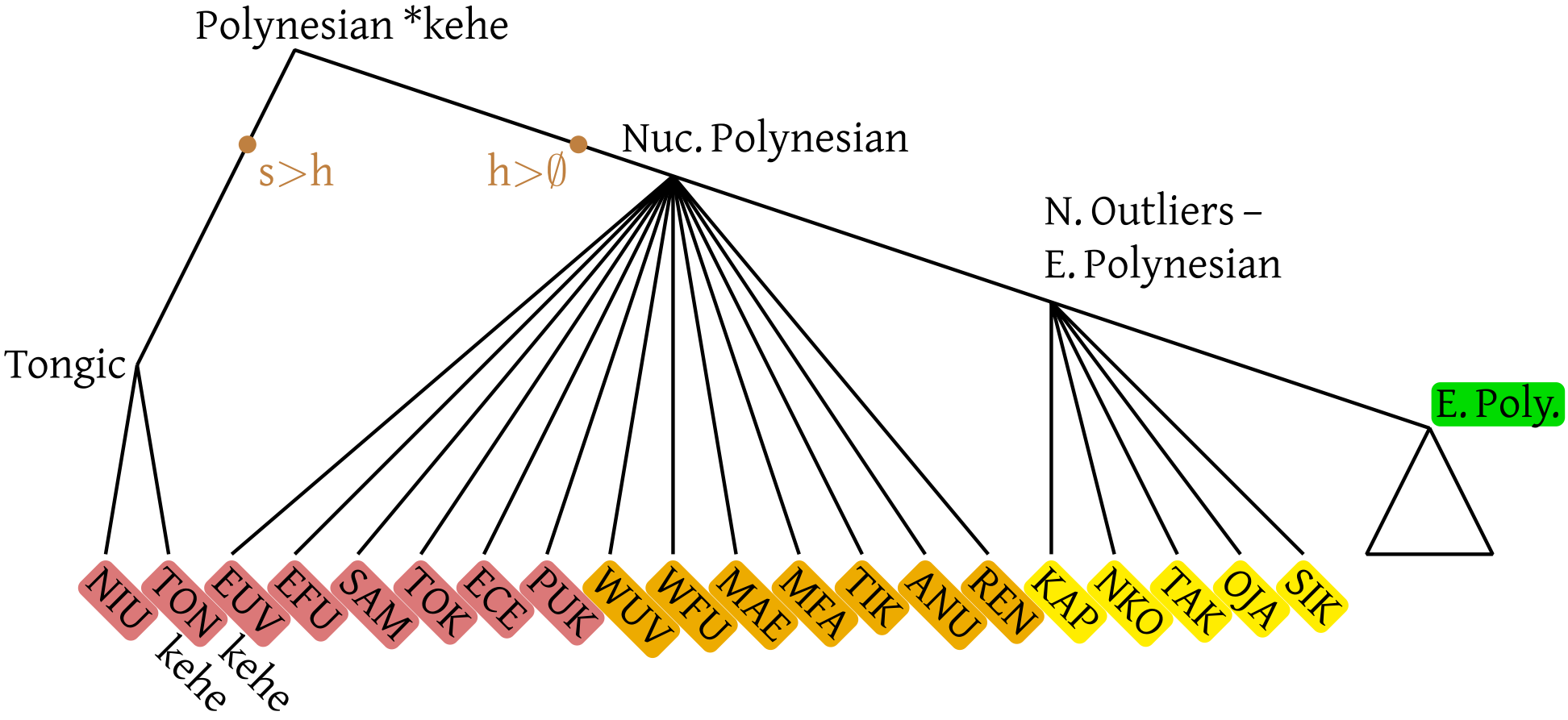
$$\text{h-freq} = \frac{\#\text{etyma with TON } \emptyset \text{ corresponding to SAM h}}{\underbrace{\#\text{etyma attested in TON and SAM}}_{N}}.$$

	N	h-freq		N	h-freq
A	1	—	M	31	0.038
B	324	0.098	N	92	0.048
C	143	0.016	O	82	0.024
D	87	0.031	P	61	0.035
E	1	—	Q	0	—
F	240	0.044	R	58	0.071
G	0	—	S	7	—
H	68	0.020	T	33	0.050
I	122	0.043	U	8	—
J	110	0.054	V	3	—
K	8	—	W	36	0.012
L	5	—	X	35	0.056

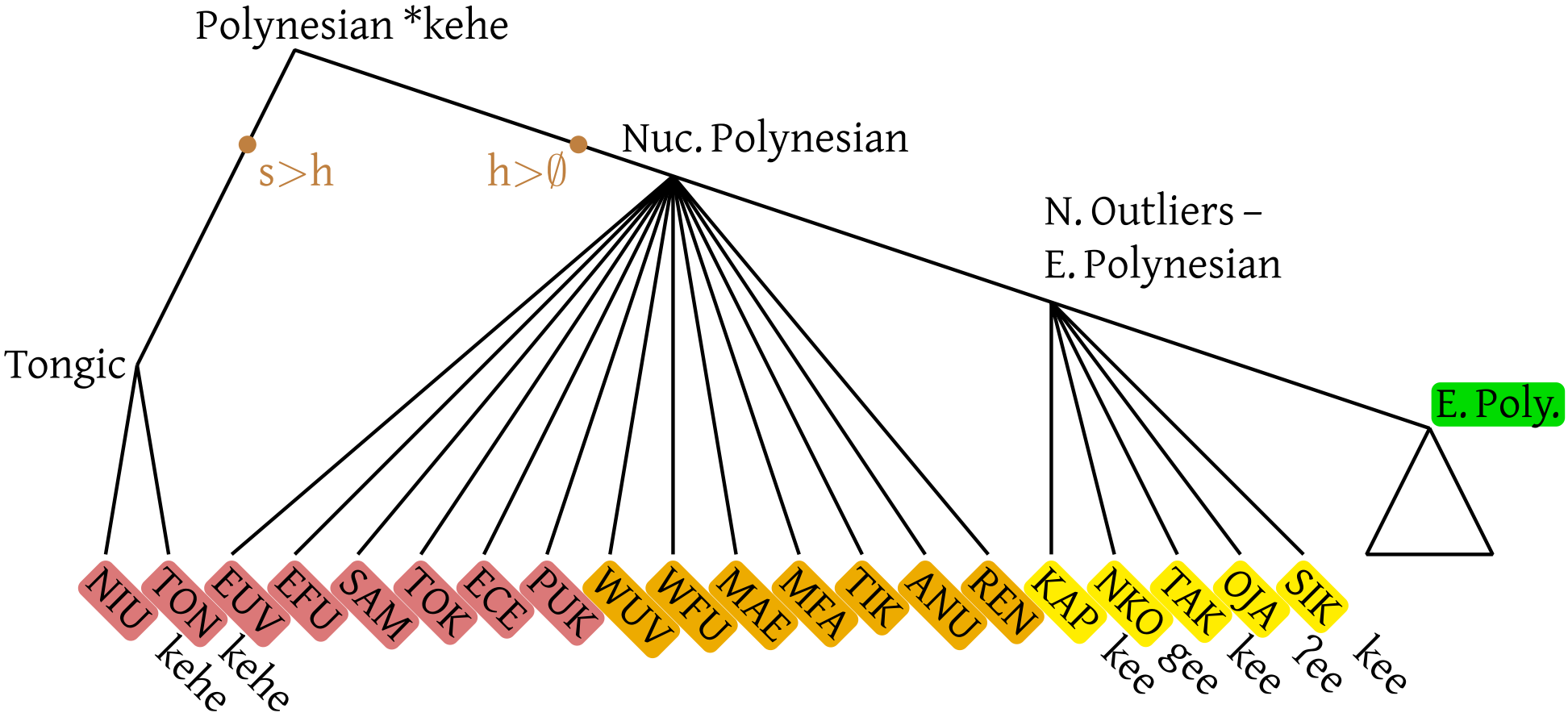
PPn *kehe ‘different’



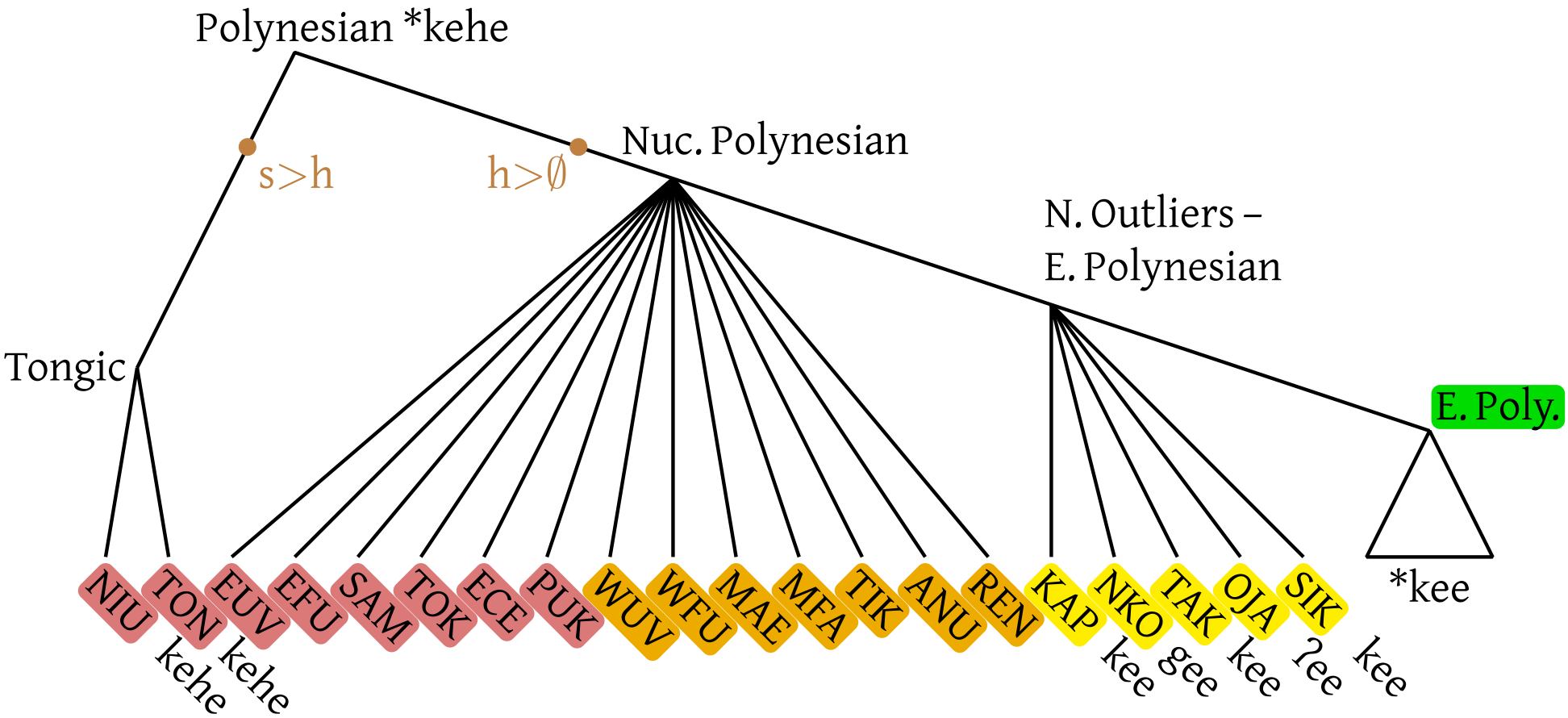
PPn *kehe ‘different’



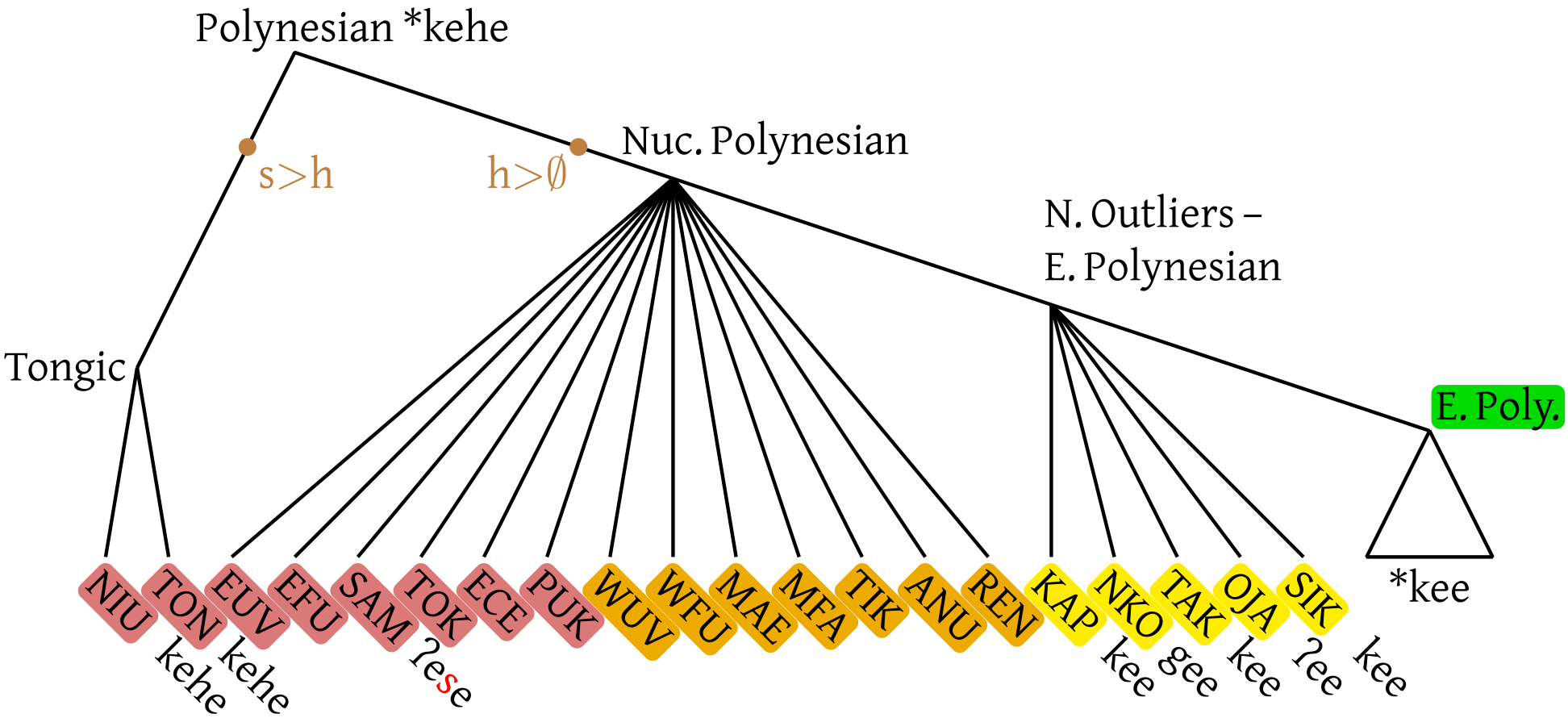
PPn *kehe ‘different’



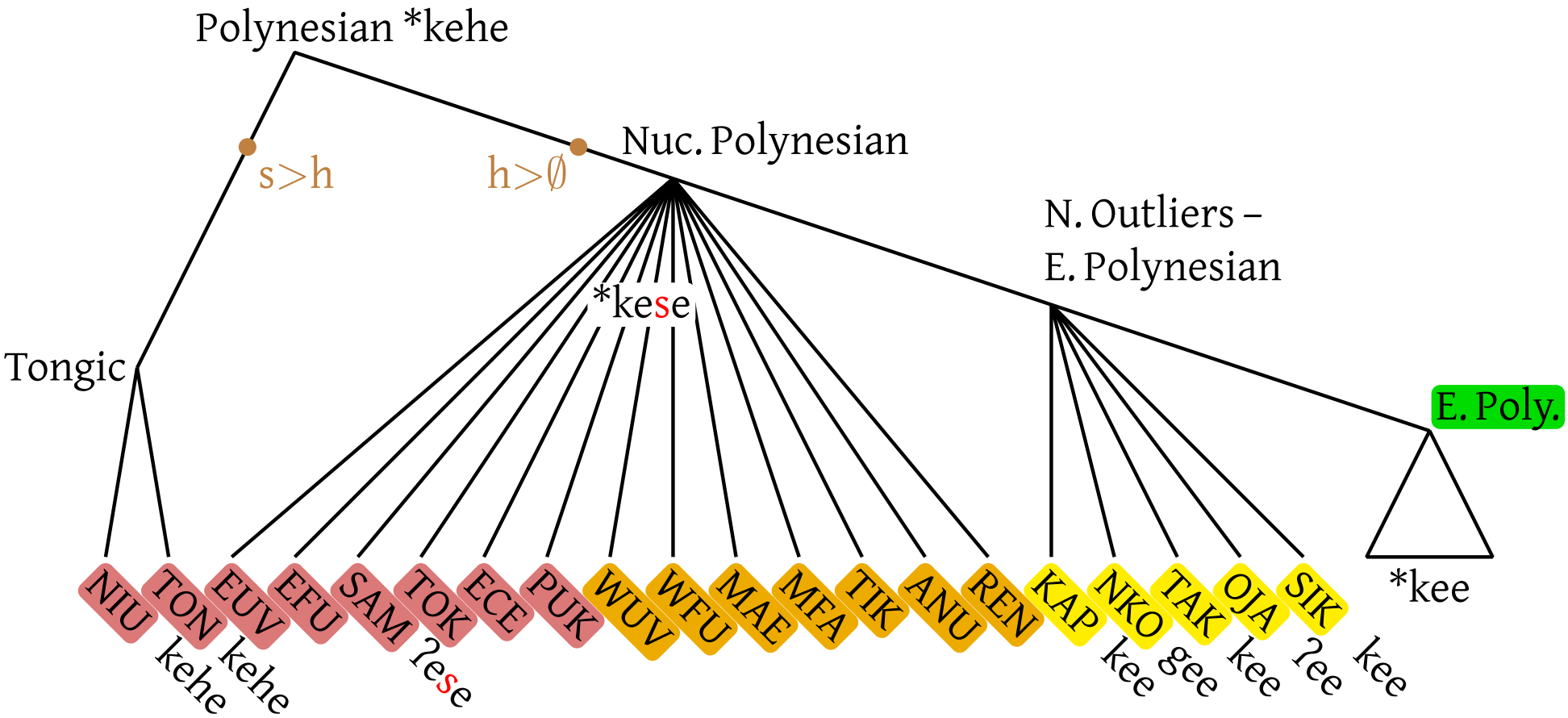
PPn *kehe ‘different’



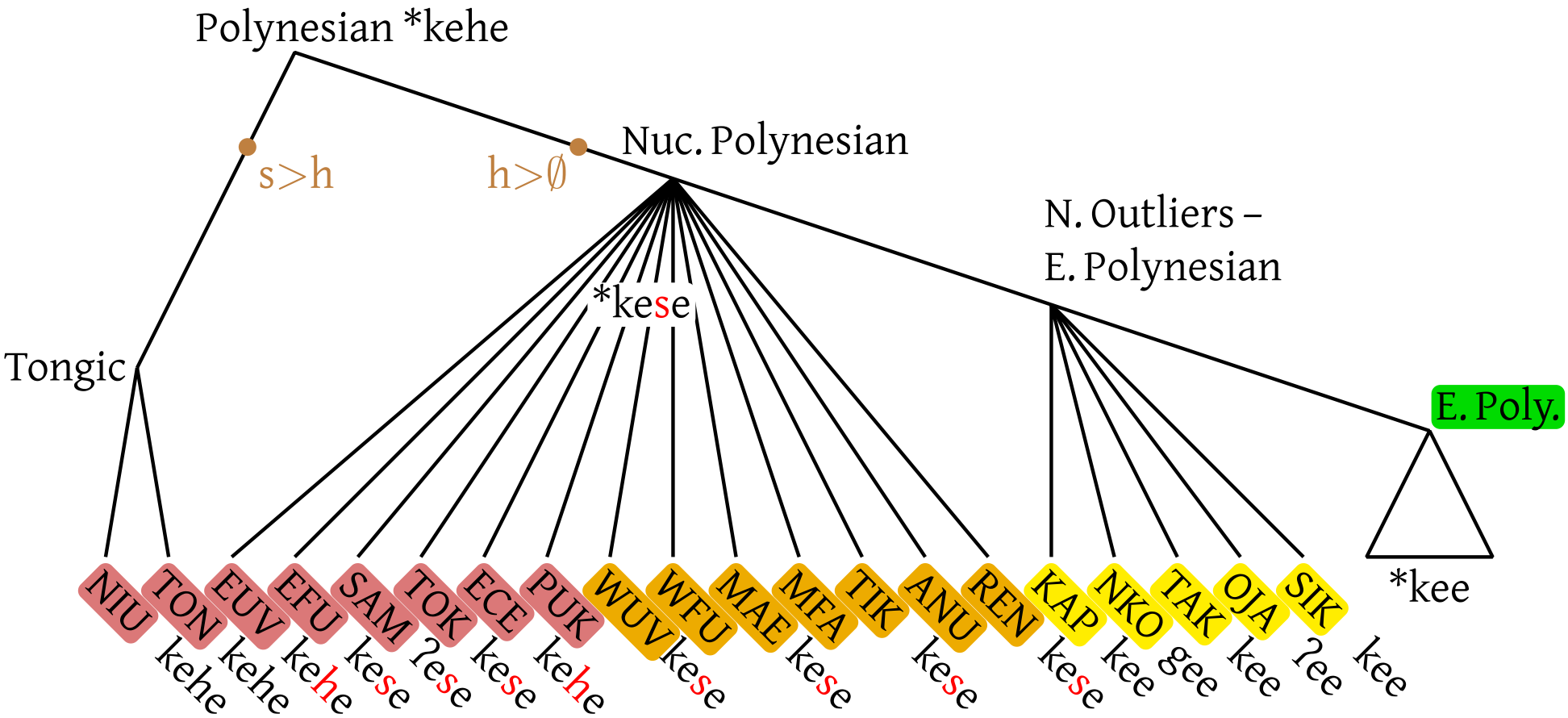
PPn *kehe ‘different’



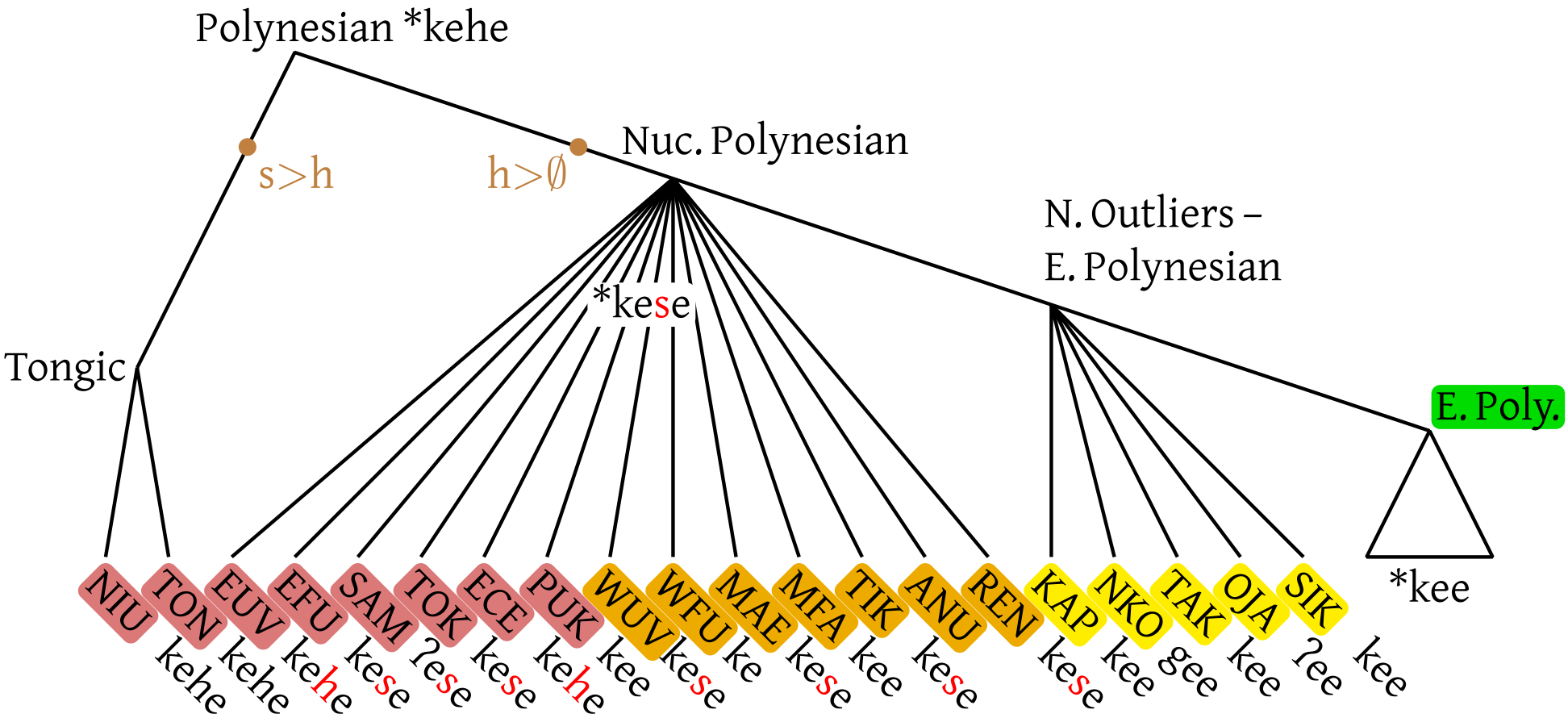
PPn *kehe ‘different’



PPn *kehe ‘different’

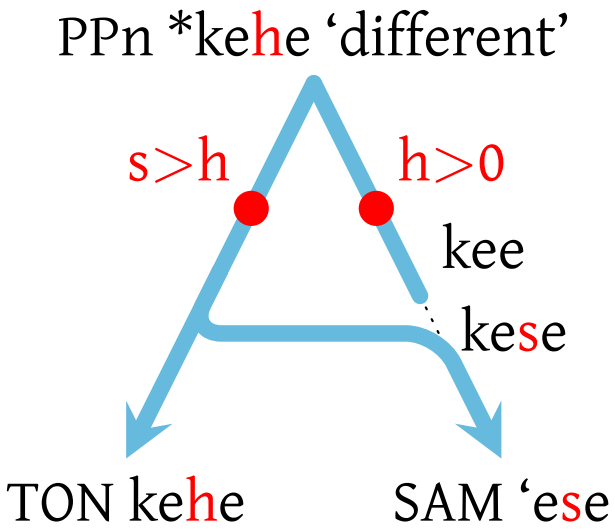


PPn *kehe ‘different’

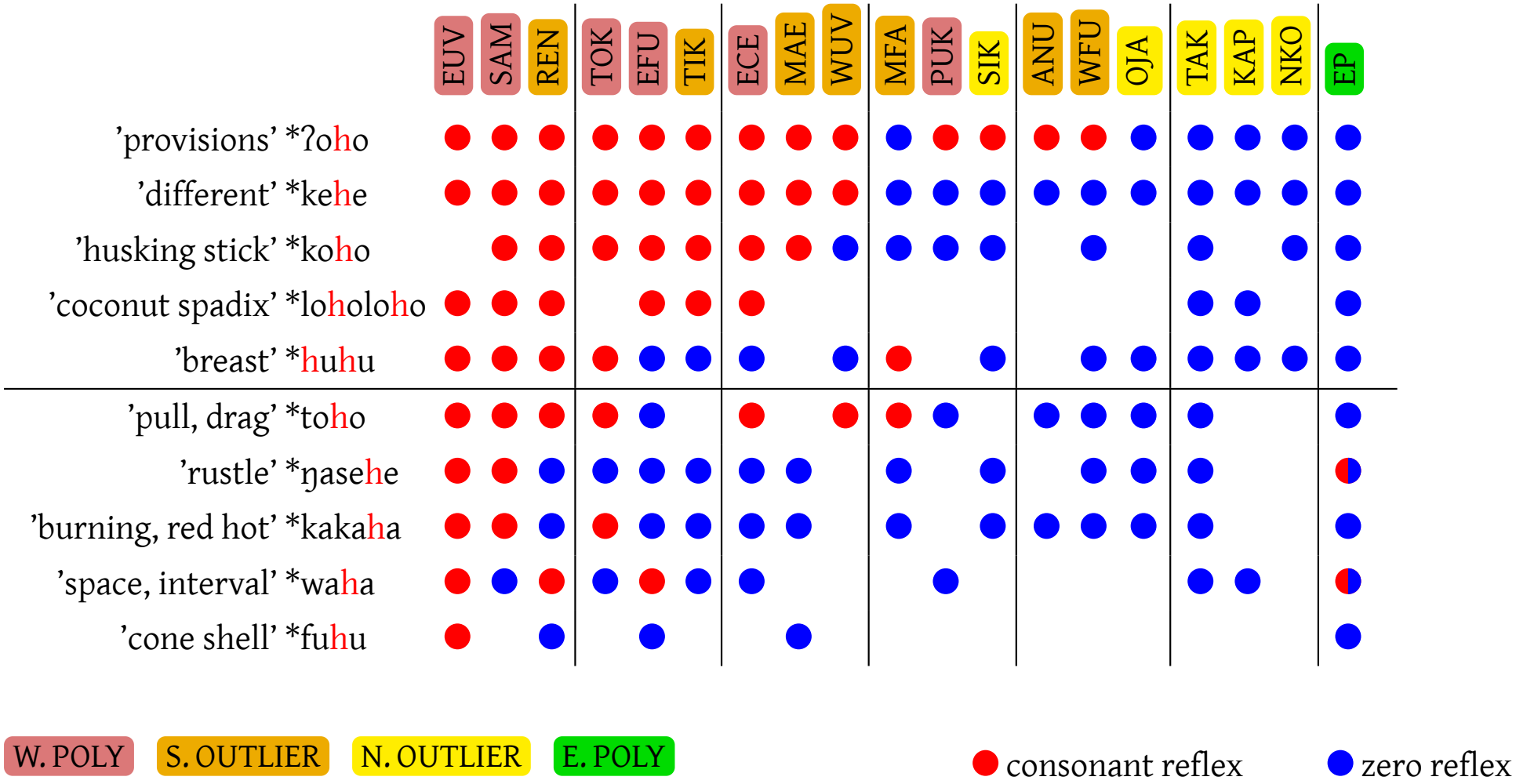


Explanations

- Doublets in Proto Polynesian *kehe, *kese.
- Sound change h>s between identical vowels.
- Dialect borrowing:

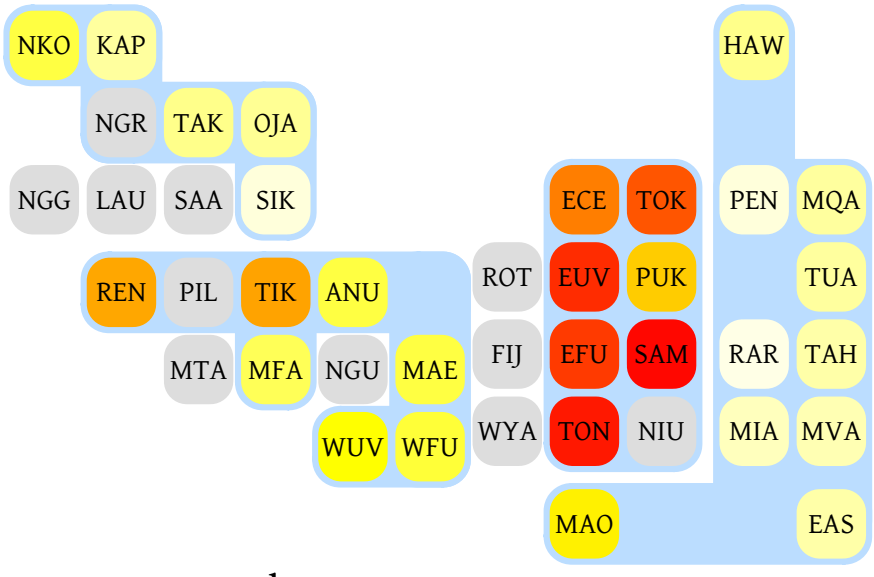


Variable reflexes of PPn *h in Nuclear Polynesian

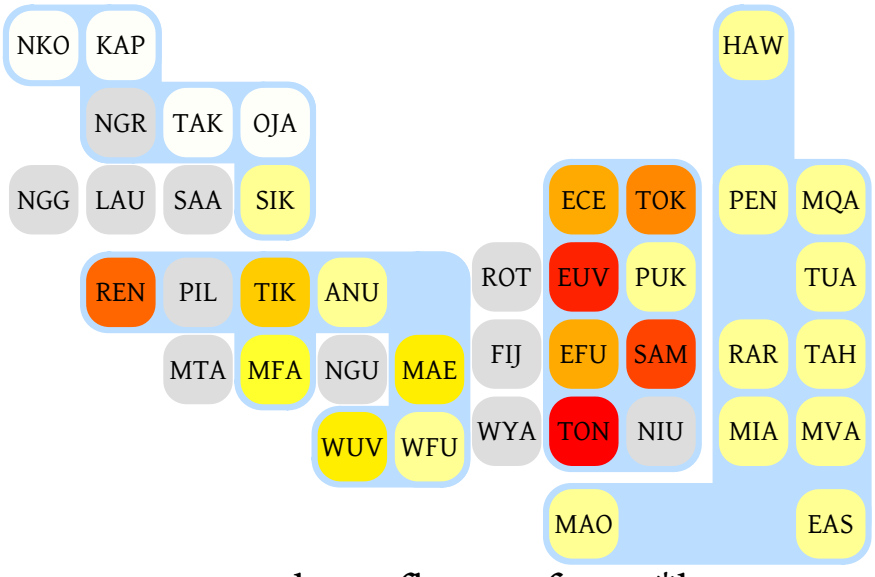


This table is adapted from: Pawley, Andrew. 2009. Polynesian paradoxes: Subgroups, wave models and the dialect geography of proto-Polynesian. Paper presented at 11th International Conference on Austronesian Linguistics, Aussois, France, June 2009.

Irregular reflexes of PPn *h spread with etyma in Cluster F

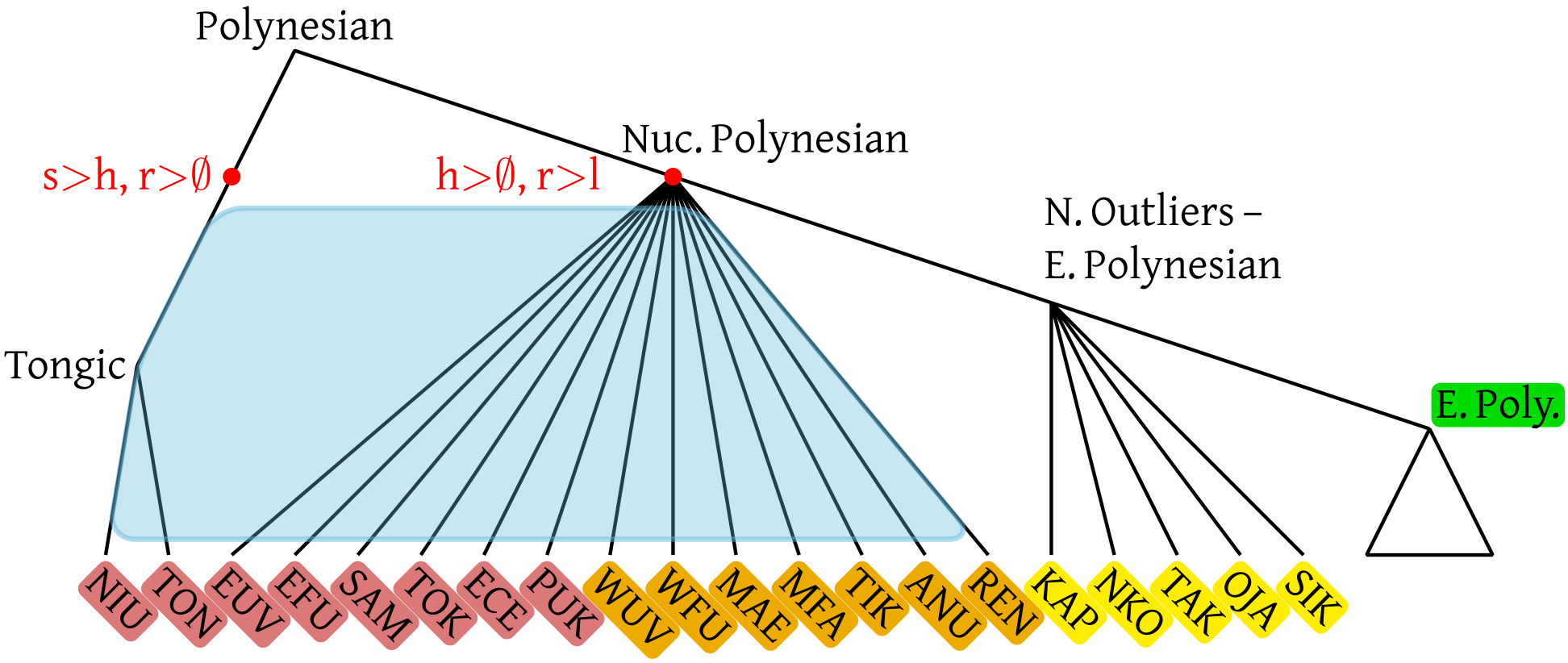


Cluster F: 279 etyma



Irregular reflexes of PPn *h

Interpretation of Cluster F



- Over half of the 279 etyma in Cluster F diffused between Tongic and Nuclear Polynesian *after* the regular sound changes shown above took place.
- Western Polynesia formed the core of this linguistic area. The Southern Outliers formed the periphery.