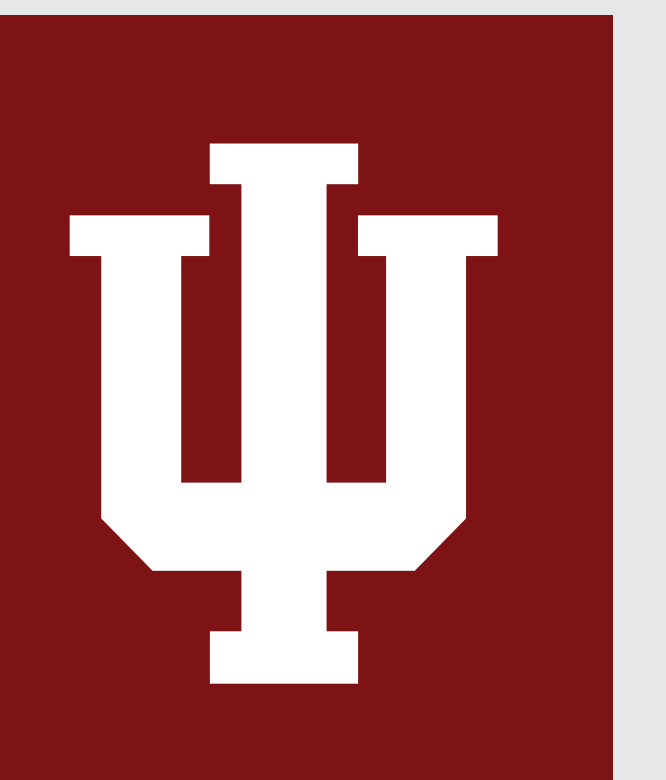


4pSCb14: A vowel space comparison of Tlawngrang Zophei and Lawngtlang Zophei

Samson Lotven and Kelly Berkson, Indiana University slotven@indiana.edu

176th Annual Acoustical Society of America Meeting
November 5-9, 2018



Zophei

Tibeto-Burman Language Spoken in Myanmar:
Kuki-Chin >> Maraic >> Zophei (or Zyphe, ISO 639-3 ZYP) >> Lower Zophei >> Tlawngrang/Lawngtlang

Undescribed: 3 major dialect groups

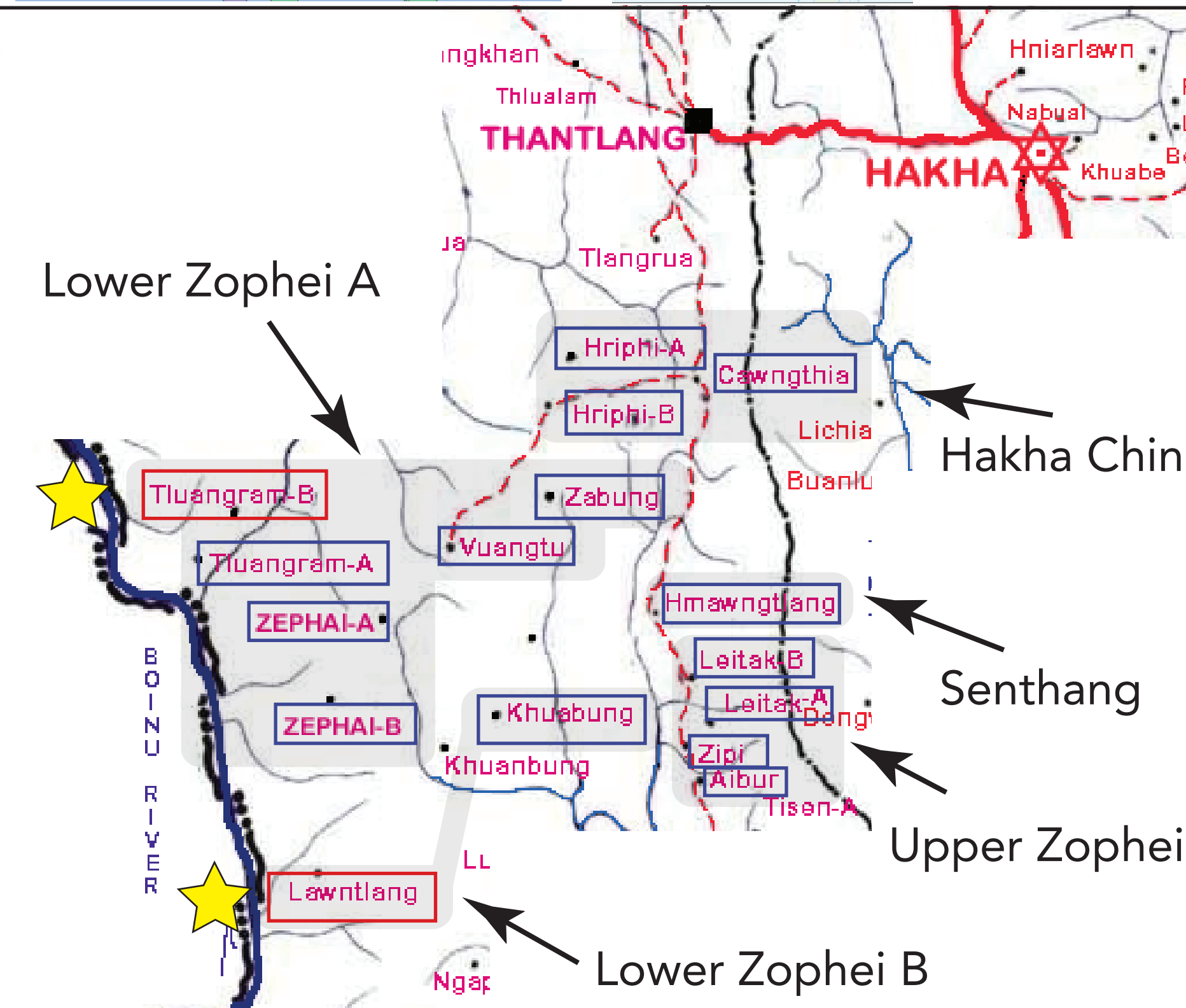
Speakers: 20,000 Worldwide & 17,000 in Chin State (1994) [1], 4,000 in Indiana (est. 2018)

This study: Describe vowel systems of a speaker from Tlawngrang (TZ) and one from Lawngtlang (LZ)

Goal: Hypothesize diachronic relationship

Methods: 1 token/vowel, 4 reps., 20% & 80% measurements, Praat [2], SemiAutoFormantExtractor [3], R [4], phonR [5]

Ethnic Zophei Villages (Community Perception of Dialect)



Observations

Tlawngrang	Lawngtlang
<ul style="list-style-type: none"> • 6 Long monophthongs /aa, ii, uu, ee, oo, øø/ • 5 Length contrasts /aa, a, ii, i, uu, u, ee, e, oo, o/ • 7 Diphthongs /ai, au, ei, ia, ua, ue, ui/ • Likely more conservative 	<ul style="list-style-type: none"> • 8 Long monophthongs /aa, ii, uu, ee, øø, ii, yy, uu/ • 4 Length contrasts /aa, a, ii, i, uu, u, ee, e/ • 4 Diphthongs /au, ie, yo, ui/ • Likely more innovative

Tlawngrang Vowel Space

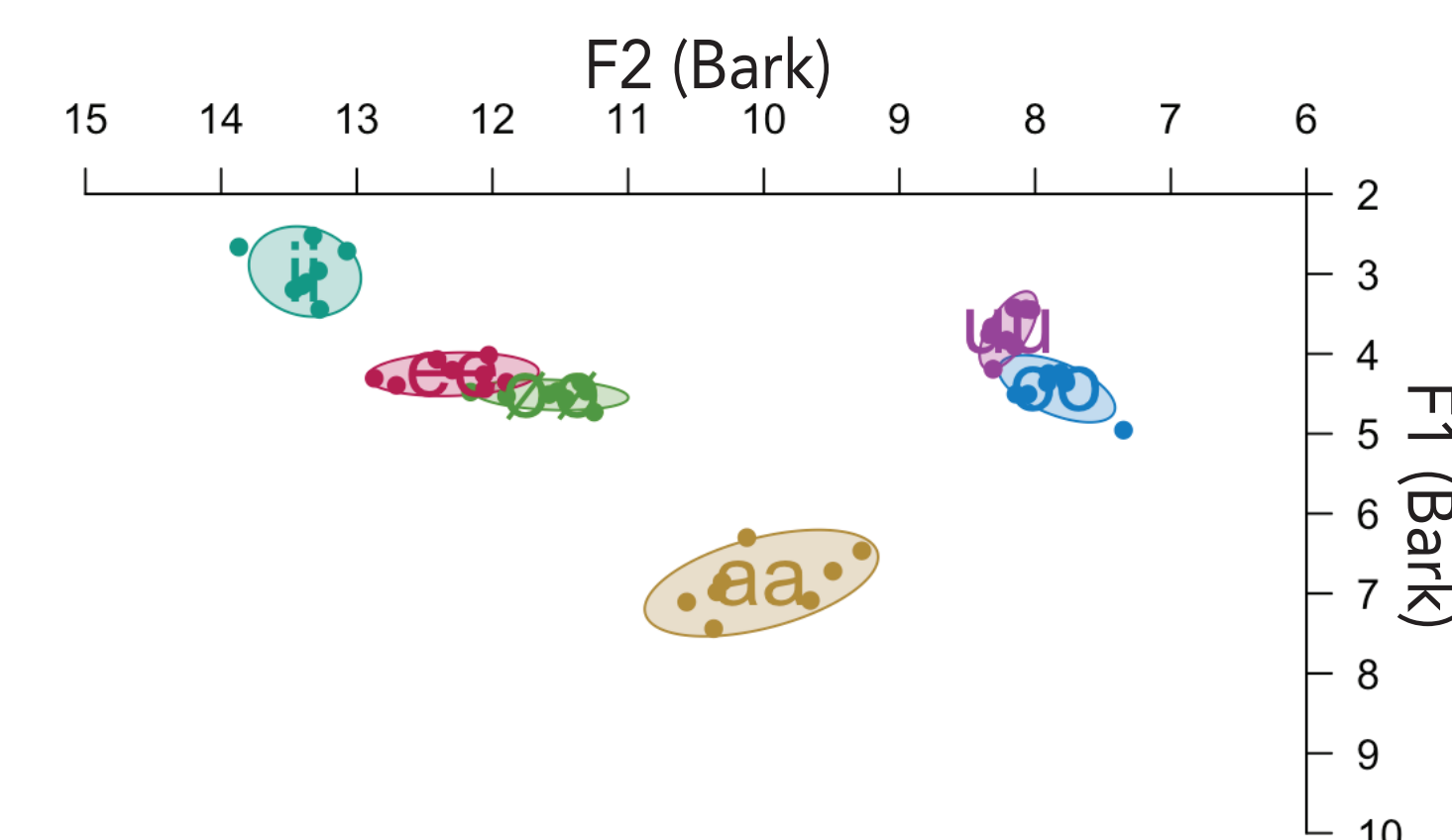


Figure 1. TZ Long Monophthongs

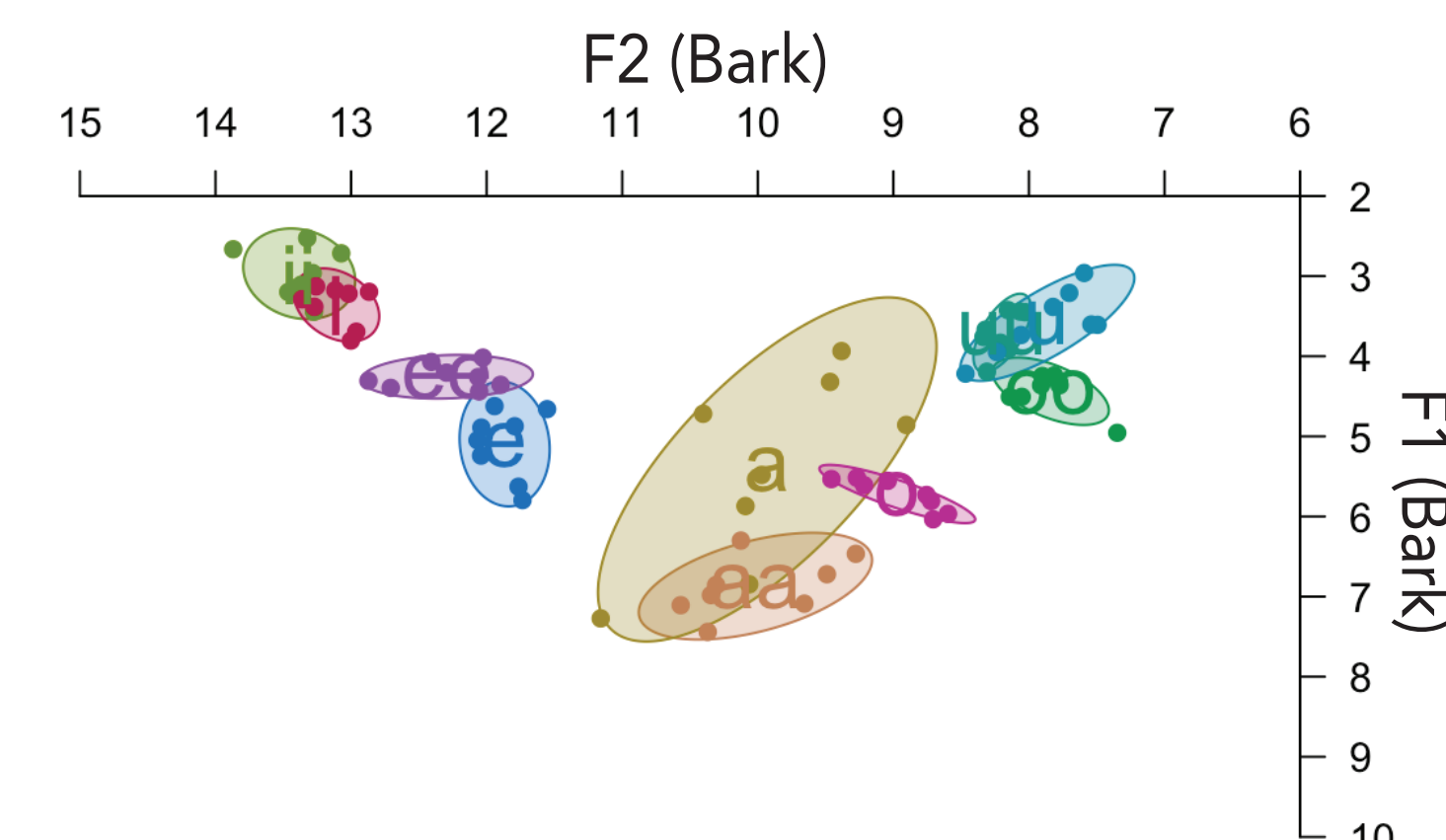


Figure 2. TZ Length Contrasts

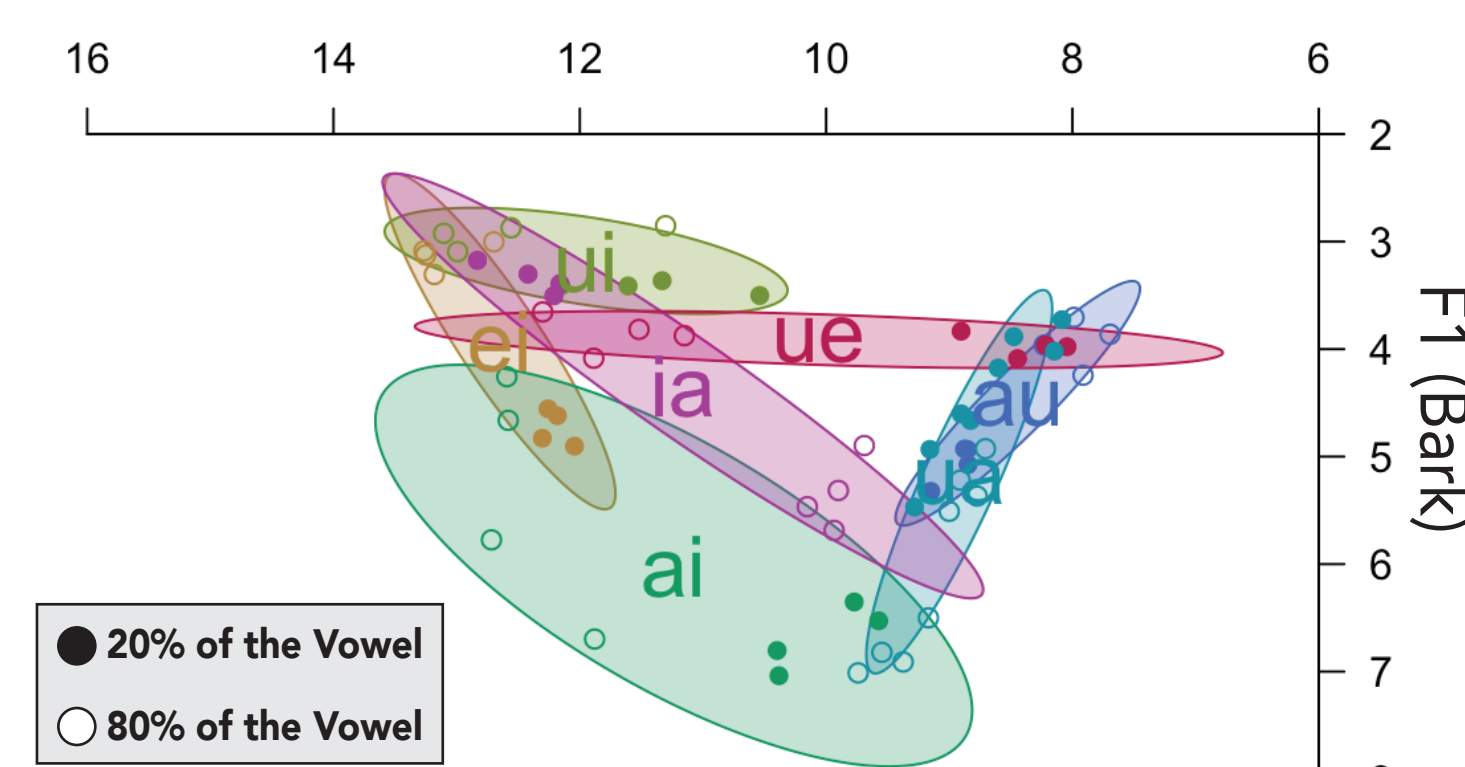


Figure 3. TZ Diphthongs

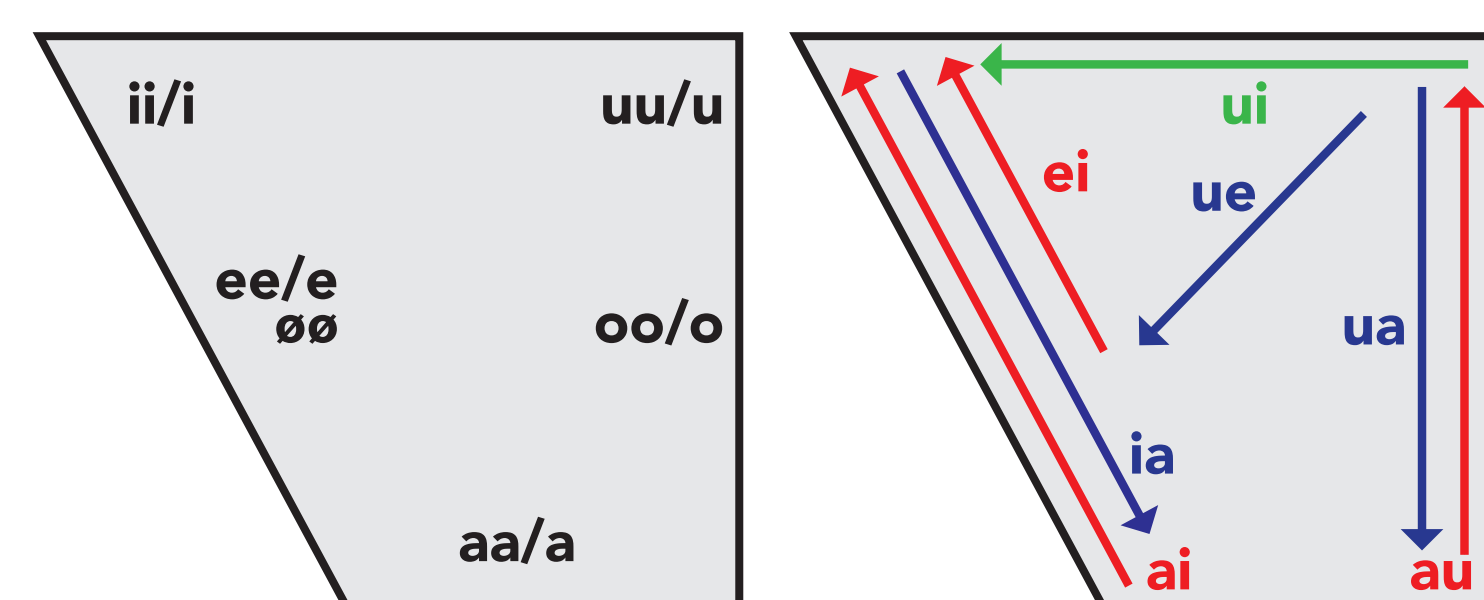


Figure 4. Schematized TZ Vowel Space

Lawngtlang Vowel Space

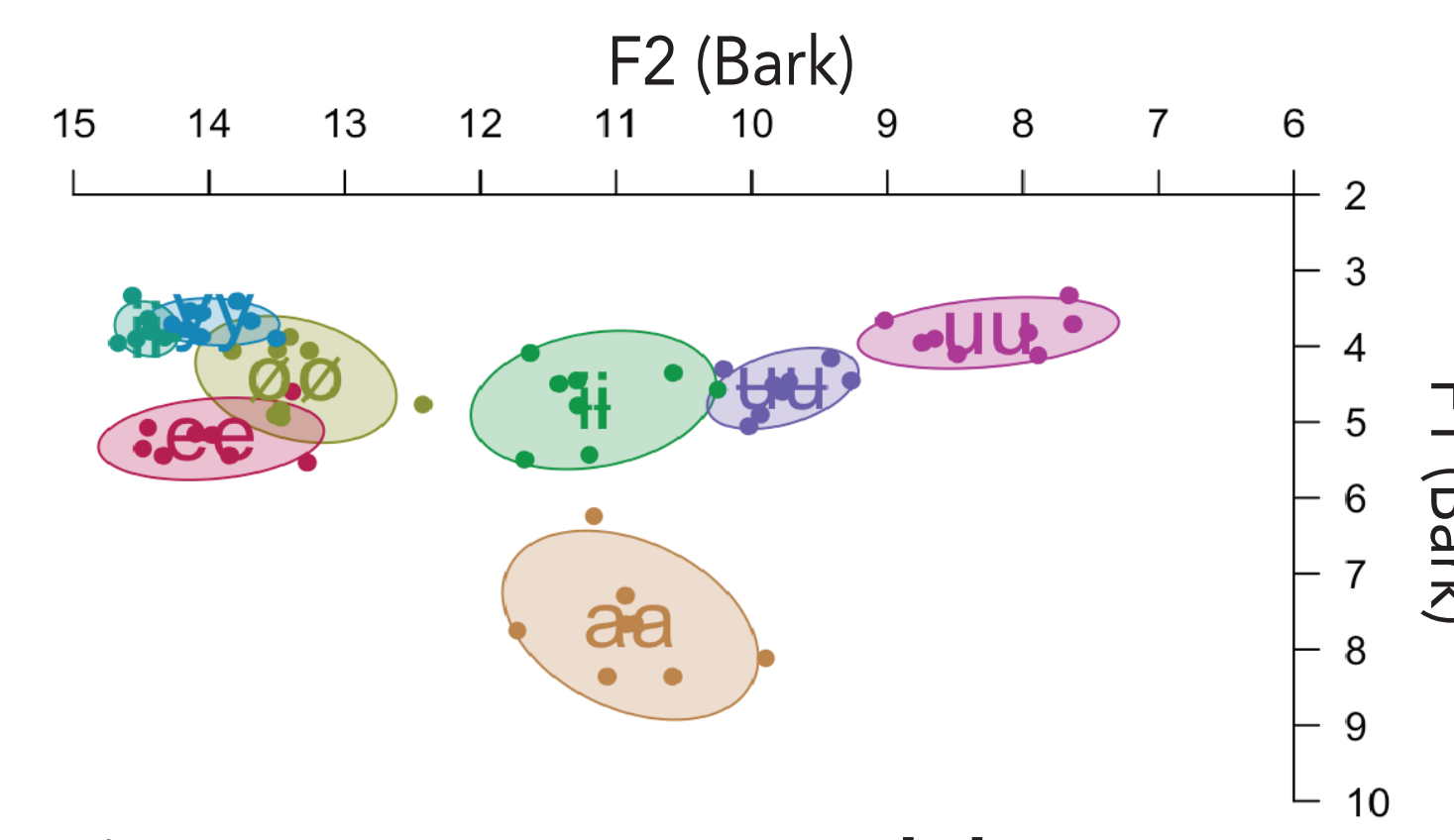


Figure 5. LZ Long Monophthongs

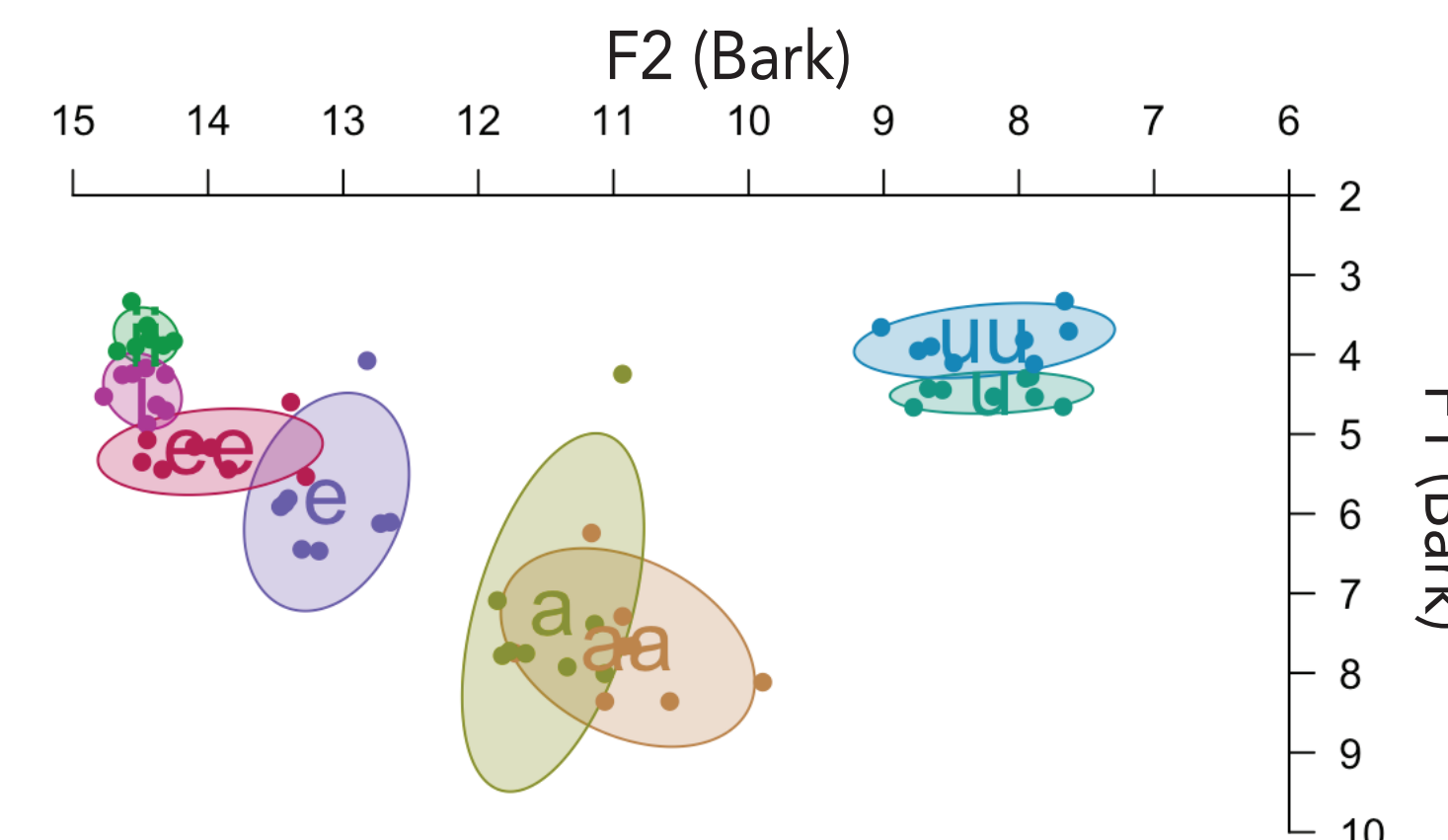


Figure 6. LZ Length Contrasts

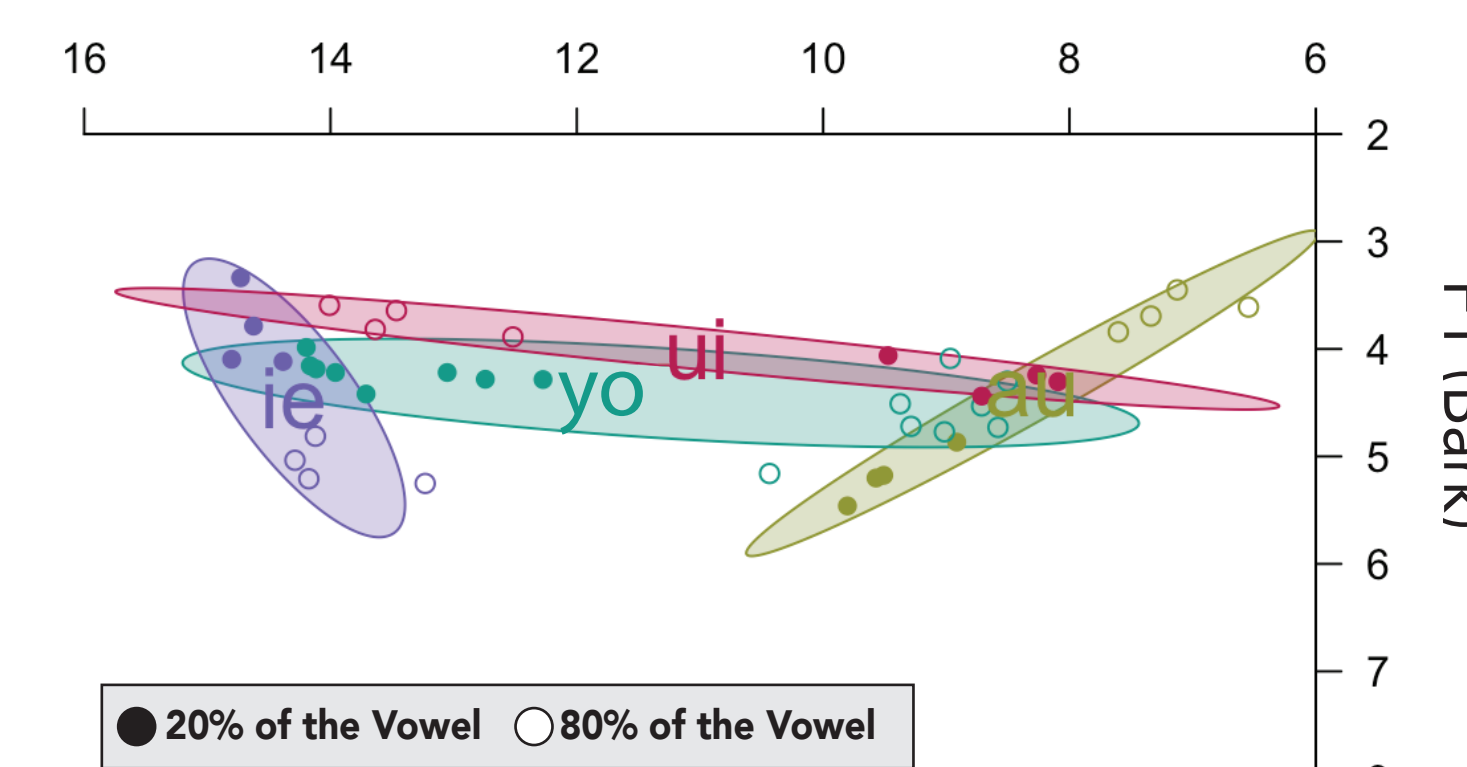


Figure 7. LZ Diphthongs

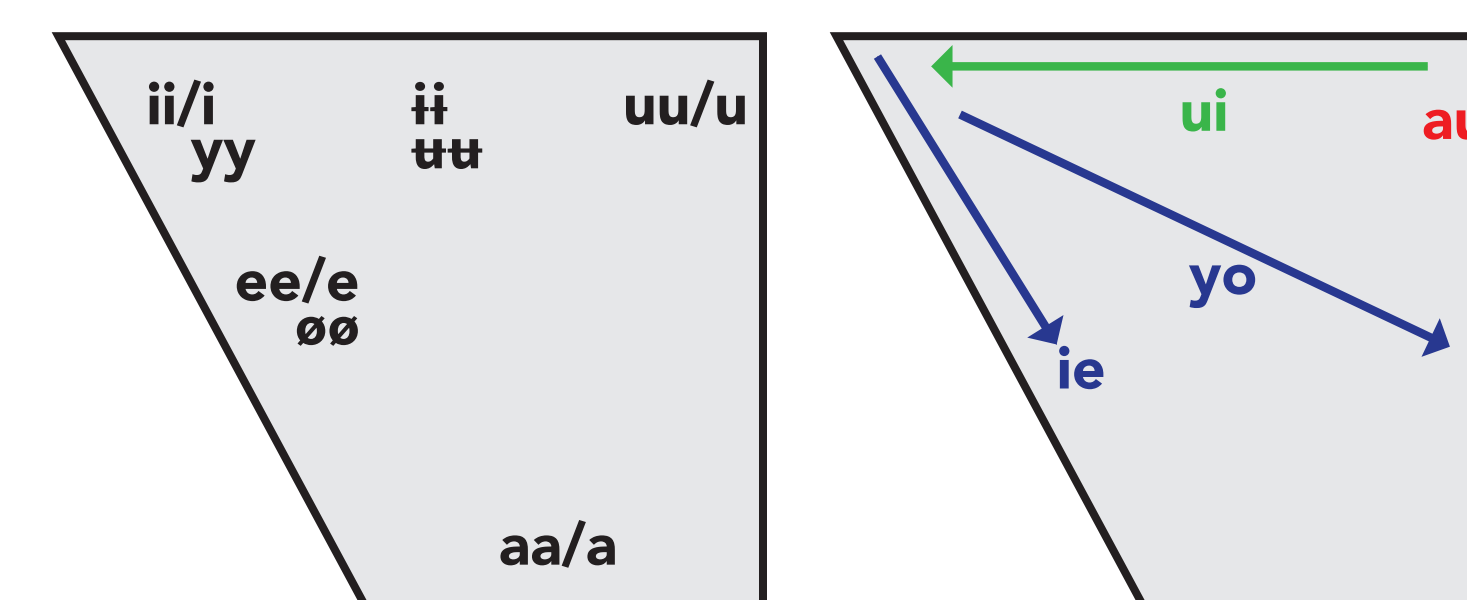


Figure 8. Schematized LZ Vowel Space

Hypothesis: Lawngtlang is likely the more innovative dialect

- /ii/ → /i:/ occurred in Senthang, but not in other Maraic Languages [9]
- /uu/ is not reported for any Maraic language (perhaps in undescribed Lautu [lutu]) [9]
- Complexities:**
 - /eŋ/ → /ai/ is more likely than /ai/ → /eŋ/, /eŋ/ in other Kuki-Chin languages, /ai/ in Mara (see Stimulus m) [9]
 - Community says Zophei people migrated westward, so possible both came from Upper Zophei
 - Borrowings or Phonological Context not accounted for, as in TZ /au/ vs. LZ /uu, e/ (see Stimuli n-o)

[1] Simons, Gary F. and Charles D. Fenig (eds.). 2018. Ethnologue: Languages of the World, Twenty-first edition. Dallas, Texas: SIL International. Online version: <http://www.ethnologue.com>.
 [2] Boersma, Paul & Weenik, David (2018). Praat: doing phonetics by computer (Computer program). Version 6.0.42, retrieved 8 September 2018 from <http://www.praat.org/>
 [3] McCloy, D. (2012). SemiAutoFormantExtractor [Praat Script]. Version 0.3, retrieved 8 September 2018 from <https://github.com/drammock/praat-semiauto/blob/master/SemiAutoFormantExtractor.praat>
 [4] R Core Team (2014). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. Retrieved 8 September 2018 from <http://www.R-project.org/>.
 [5] McCloy, D. R. (2016). phonR: tools for phoneticians and phonologists. R package version 1.0.7.
 [6] World Map: <https://wallcover.com/asia.html>
 [7] Burma Map: <http://asia.jagat.com/asia/india/india.html>
 [8] Chin State Map, Chin Baptist Mission Youth Fellowship, Pu Siang KungWal
 [9] VanBik, K. (2009). Proto-Kuki-Chin: A Reconstructed Ancestor of the Kuki-Chin Languages. STEDT Monograph Series, Vol. 8. University of California, Berkeley.

References

The Great Zophei Vowel Shift

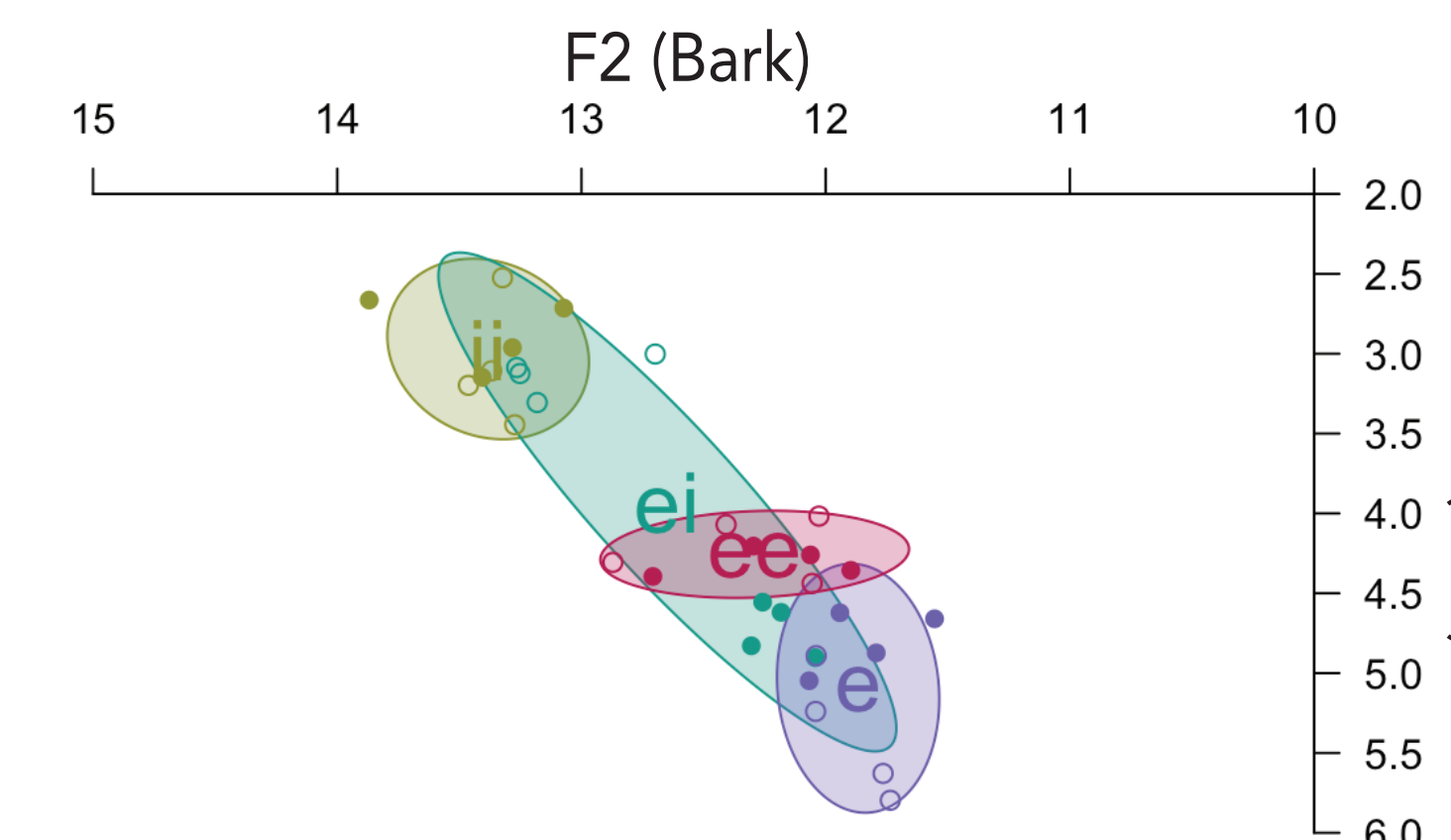


Figure 9. TZ High Front Vowels

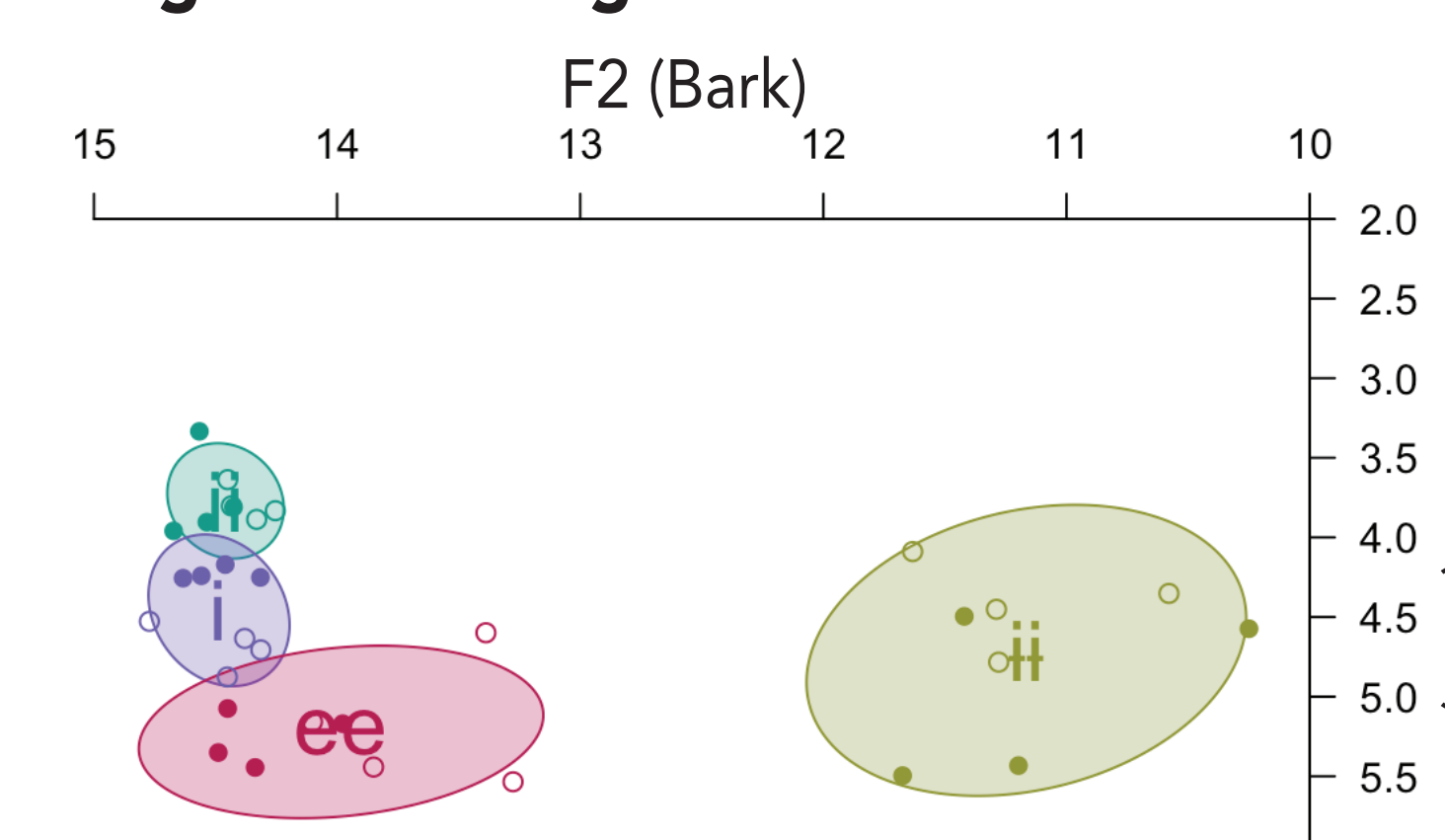


Figure 10. LZ High Front Vowels

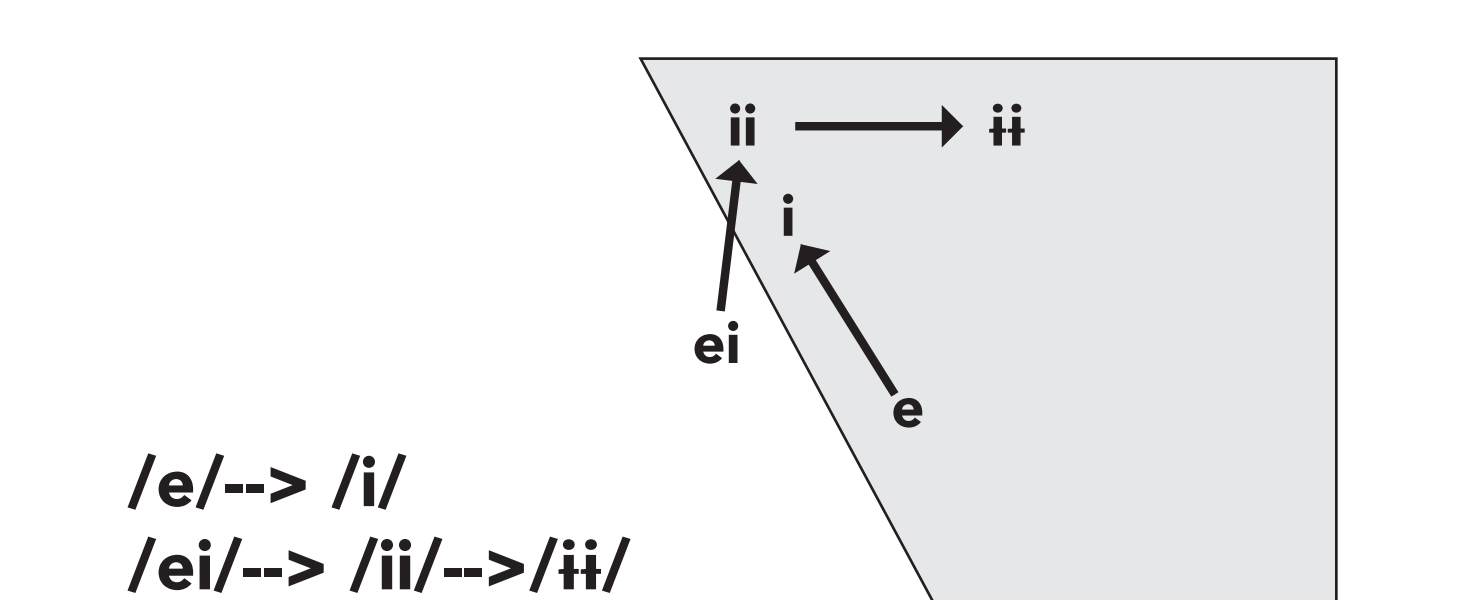


Figure 11. Schematized High Front Shift

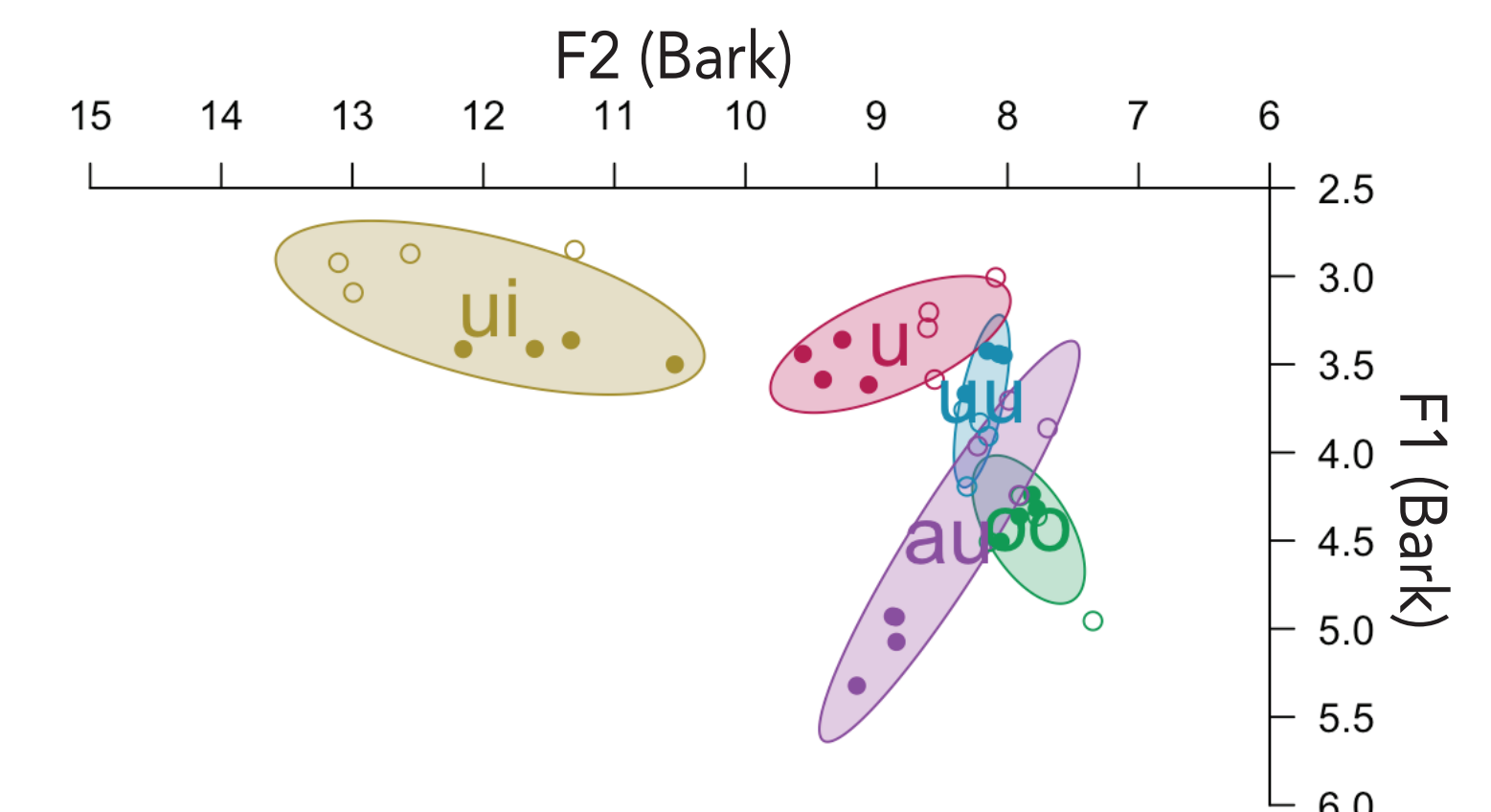


Figure 12. TZ High Back Vowels

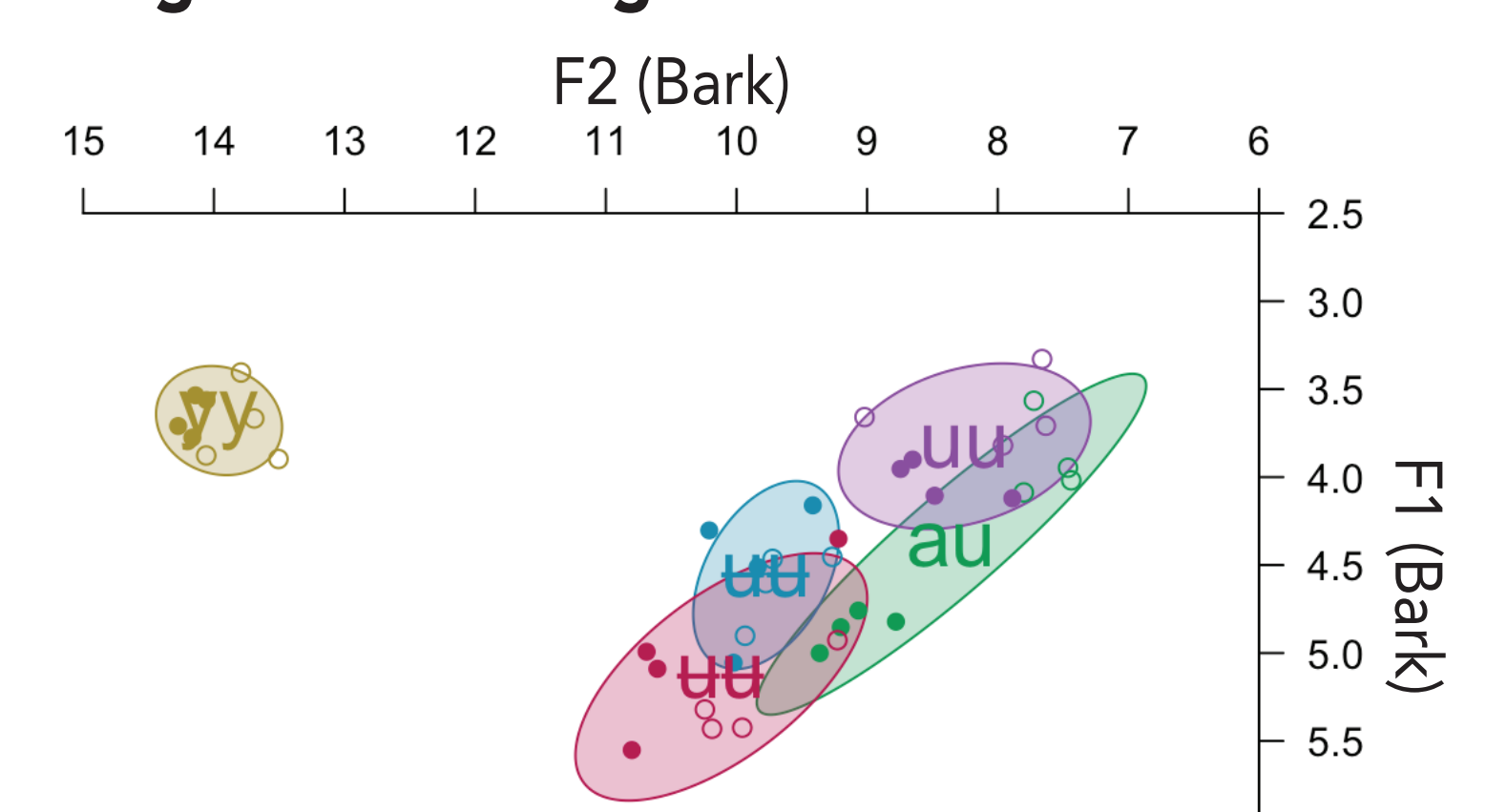


Figure 13. LZ High Back Vowels

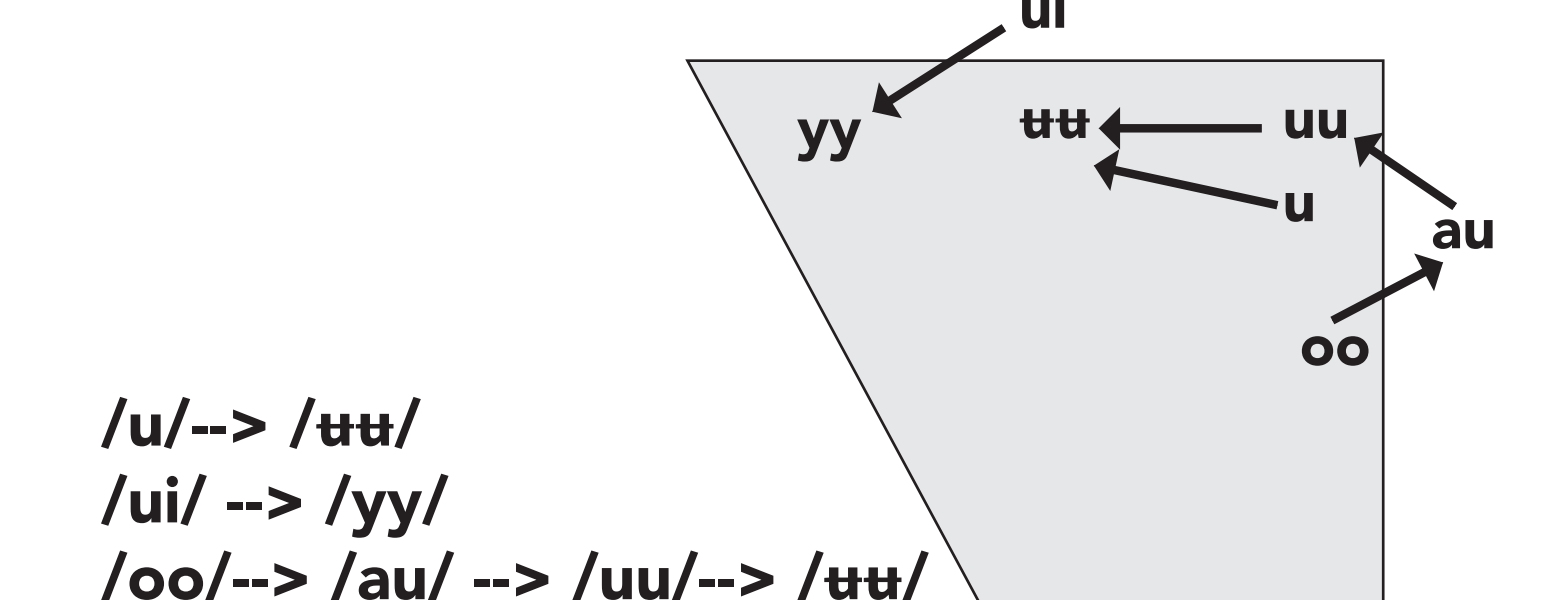


Figure 14. Schematized High Back Shift

Stimuli List

	Phoneme	Tlawngrang	Phoneme	Lawngtlang	Gloss
a.	/aa/	ʔáálùù	/aa/	ʔààlùù	potato
b.	/ii/	tʰii	/i:/	tʰi:	air
c.	/uu/	pʰúú	/uu/	pʰú:	group
d.	/ee/	pʰéé	/ee/	pʰé:	leg
e.	/oo/	póó	/au/	páú	father
f.	/øø/	lóó	/øø/	lóó	farm
g.	/a/	tʰáŋtsʰà	/a/	tʰáŋtsʰà	worship
h.	/i/	dì	/i/	dì	correct, return
i.	/u/	tsáʔú	/u/	tsááʔú	book
j.	/u/	tù	/uu/	tù:	hoe
k.	/e/	pè	/i/	pì	give
l.	/o/	pahlo	/a/	pàhlà	to mix
m.	/ai/	bài	/eŋ/	bèŋ	cheek
n.	/au/	páú	/uu/	púú	belly
o.	/au/	tʰúŋkʰàù	/e/	tsʰúŋkʰé	relative
p.	/ei/	léi	/ii/	líi	bottom
q.	/ia/	tʰáipá	/ie/	tʰéŋpié	wall
r.	/ua/	túá	/yo/	týó	do
s.	/ue/	bùébáá	/ui/	bùibáá	disordered
t.	/ui/	lúipàà	/yy/	lýypà	debt
u.	/aŋ/	jàŋ	/aŋ/	jàŋ	root/base
v.	/iŋ/	tʰiŋ	/iŋ/	tʰiŋ	wood
w.	/uŋ/	túnŋ	/uŋ/	túnŋ	play (instrument)
x.	/oŋ/	kónŋ	/oŋ/	kónŋ	bald

Special thanks to Thomas Thawngza and Zai Sung for their help with this project