

Geographic distribution of Finnish vs. Anglicized pronunciations of ‘sauna’ in Michigan’s Upper Peninsula

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(Slides available at www.gvsu.edu/csd/)

January 7th, 2018

Road map of the presentation:

1. Introduction
2. Background
3. Dataset A
4. Dataset B
5. Dataset C
6. Discussion and Conclusions

Pronunciations of the English word ‘sauna’

How do you pronounce the word “sauna”?



Vowel type	IPA	Association
Monophthong	[sɑ.nə], [sɔ.nə]	Anglicized
Diphthong	[saʊ.nə], [sɒ.ʊ.nə]	Finnish

Sociolinguistically salient feature

- For many areas with high proportions of Finnish ancestry, particularly in Michigan's Upper Peninsula (UP):
 - This question evokes a strong reaction and stirs debate
 - Should one use an Anglicized or a Finnish pronunciation?
- Has even been used in advertisements:

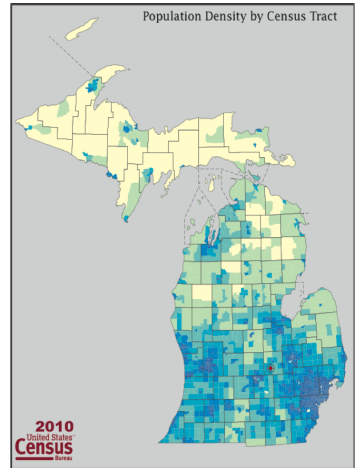


Folk Spelling	IPA	Association
saw-na	[sɑ.nə], etc.	Anglicized
sow-na	[saʊ.nə], etc.	Finnish

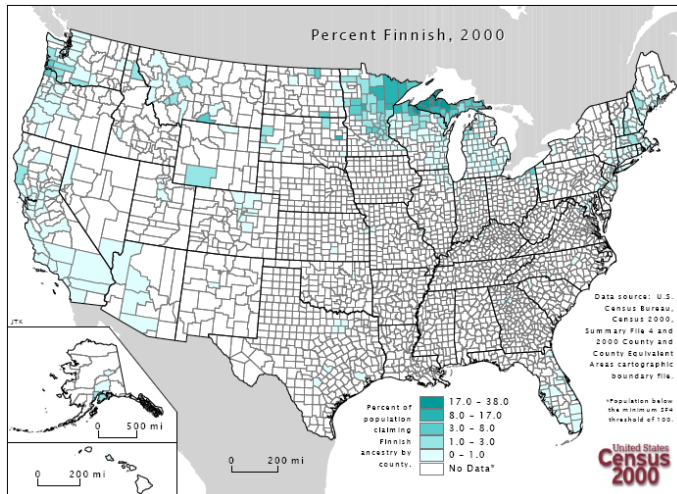
- This study seeks to reveal:
 - how the variant pronunciations are geographically distributed
 - what kinds of social identity and attitudes they index

Population statistics

- Population of Upper Peninsula
 - $\approx 300,000$ (US Census 2010)
 - Largest city (Marquette) has a population of only $\approx 26,000$
- The Upper Peninsula accounts for:
 - 29% Michigan's land area, yet
 - only 3% of Michigan's population
- Largely rural communities

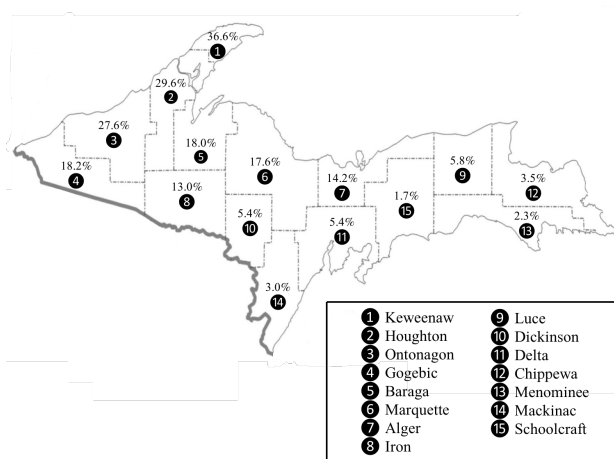


Americans reporting Finnish ancestry: USA



- Mostly in Upper Midwest (Michigan, Wisconsin, and Minnesota)

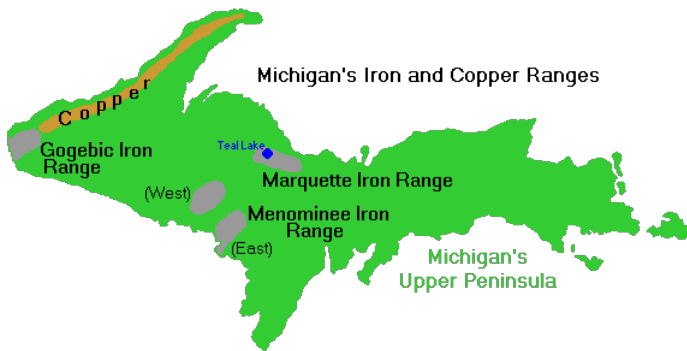
Americans reporting Finnish ancestry: UP



Based on 2011-2015 US Census data (B04006)

Immigration history

- Mining industry took off in 1880s-1910s
- Finns arrived in large numbers in two main waves of immigration
- Maintained language/cultural practices longer than other groups



Remlinger (2017)

- Three main claims about Finnish variant [saʊ.nə] (p.47-48, p.107):
 - ① May be extending beyond “Finnish” local identity to index a broader regional UP identity (“Yooper”)
 - ② Due to strong attitudes that it indexes Finnish-ness, used as a shibboleth to mark ‘insider’/‘outsider’ distinctions
 - ③ Primarily restricted to western areas of the UP

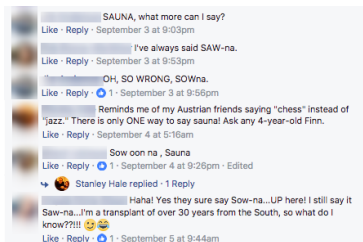
Remlinger, K. A. (2017). *Yooper Talk: Dialect as Identity in Michigan's Upper Peninsula*. Languages and Folklore of Upper Midwest. Madison, WI: University of Wisconsin Press.

Present study

- Claims by Remlinger (2017) still have yet to be systematically confirmed in an empirical study
- Research questions: Is the Finnish variant...
 - ❶ ...associated with Finnish identity, UP local identity, or both?
 - ❷ ...reinforced by especially strong attitudes?
 - ❸ ...indeed restricted to western areas of Michigan's UP?
- Present study triangulates data from three datasets:
 - (A) online survey data of attitudes and self-reported pronunciation,
 - (B) metalinguistic commentary on Facebook discussion group
 - (C) reading passage task data from participants across the UP

Facebook discussions: Method

- Searched for discussion groups on www.facebook.com related to:
 - Classified ads (e.g., “Marquette County Stuff For Sale”)
 - Specific target areas (e.g., “You know you’re from Copper Country when. . .”)
- Sent out requests to join groups.
- If/when accepted, submitted one post to encourage participation in online survey
- Postings elicited commentary and heated debates about the correct pronunciation for this word



(Sample of a series of responses to a Facebook posting)

Facebook discussions: Results

Example quotes (edited to enhance clarity):

- Purism ('origin argument')
 - (a) *It is the only Finnish word that has made it into the English vocabulary, and it should be pronounced correctly.*
 - (b) *There is only one way. The wrong way is an Americanized butchering of a Finnish word.*
- (Reverse) assimilating
 - (c) *When I first ever saw the word I pronounced it [sq.nə]. Since then I make it a point to call it [sau.nə] because a number of Finnish people have corrected me so many times.*
 - (d) *I picked up pronouncing it [sau.nə] from living in the UP and hearing the Finnleo Sauna commercials on TV.*
- Finnish identity vs. UP identity
 - (e) *My kids when they hear it pronounce [sq.nə] can't take it. They always correct it. I don't really care myself. It just means they aren't from the U.P. and are Yooper proud like us Finns.*
 - (f) *I have a UP accent, not Finnish, lol.*

Facebook discussions: Conclusions

Conclusions from qualitative analysis:

- Choice of variant depends on:
 - one's geographic location and
 - whether the [saʊ.nə] variant has 'social capital' within that community
- In areas with the highest concentration of Finns, the use of the Finnish variant indexes one's "Finnish-ness"
- However, individuals with non-Finnish ancestry may also use the Finnish variant (e.g., due to peer pressure)
- Becoming associated with a broader UP regional identity

Online survey: Procedure/Participants

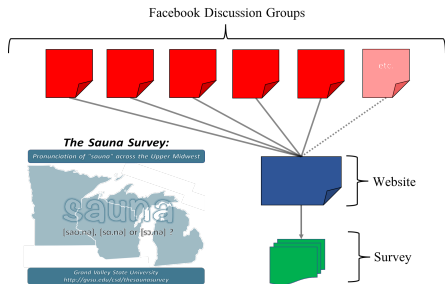
- In Facebook postings, linked to the survey's portal website:
www.gvsu.edu/csd/thesaunasurvey

- Survey run using Qualtrics

- Participation requirements:
 - Minimum age: 18
 - Native speaker of English
 - Raised and/or lived at least half of life in Michigan, Minnesota, or Wisconsin

- Thus, overall flow:

- Post → Website → Survey



- 1,622 usable responses over a three week period

Online survey: Materials

- 15 questions in total
 - Median time: 4.2 minutes
- Three most important components for this talk:
 - (1) Self-reported pronunciation
 - (2) Rate attitudes on 7-point Likert scale
 - (3) Zip code of hometown
(Specify the state and zip-code of your location of hometown, i.e., where you were primarily raised from birth to 18 years of age)

Which way are you more likely to pronounce the "au" in the FIRST syllable of the word "sauna"?

Similar to the vowel in "mouse"

Similar to the vowel in "moss"

Similar to the vowel in "mass"

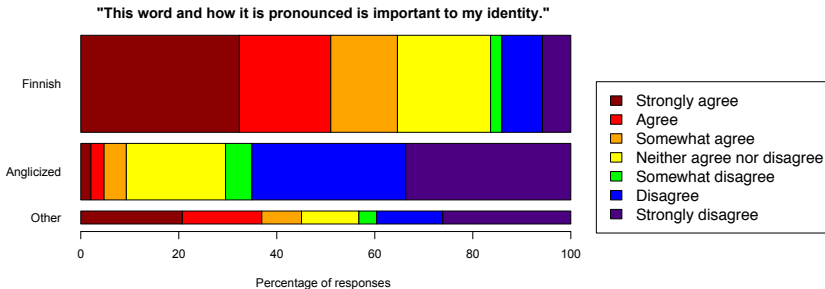
Other (i.e., similar to which 'other' vowel?):

Please identify on the scale to which degree you agree or disagree with each statement.

	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
I feel strongly about how this word should be pronounced.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If this word is pronounced different from how I would say it by someone else, I feel justified in correcting that person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If this word is pronounced different from how I would say it by a group of individuals, I feel justified in correcting them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This word and how it is pronounced is important to my identity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This word, but not how it is pronounced, is important to my identity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Online survey: Results (Attitudes)

- Grouping participants according to their self-reported pronunciations and calculate distribution of attitude strength.
- Example:



Online survey: Results (Attitudes)

Summary of results from analysis of attitudes

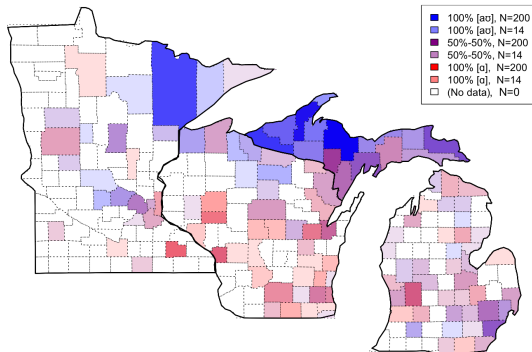
Question	Finnish [aʊ]	Anglicized [ɑ]
I feel strongly about how this word should be pronounced.	strong feelings	largely indifferent
If this word is pronounced differently from how I would say it by someone else, I feel justified in correcting that person.	strongly willing to correct	not willing to correct
If this word is pronounced differently from how I would say it by a group of individuals, I feel justified in correcting them.	strongly willing to correct	not willing to correct
This word and how it is pronounced is important to my identity.	important to identity	unimportant to identity
This word, but not how it is pronounced, is important to my identity.	less important to identity	unimportant to identity

Observations:

- Users of the Finnish variant have strong attitudes toward its use, whereas the users of the Anglicized variant do not

Online survey: Results (Upper Midwest)

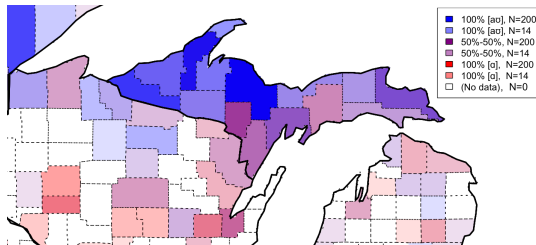
- First, map zip codes onto counties
- Tally self-reported pronunciations according to county
- Hue (red vs. blue)
 - Preference for the [ɑ] vs. [aʊ] variant
- Depth (light vs. dark)
 - N responses (logarithmic scale)



Observation:

- Finnish variant preferred in areas with historical Finnish immigration

Online survey: Results (UP specifically)



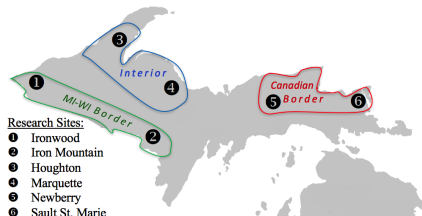
Observations:

- Northwest and north-central areas of UP use Finnish [au] variant
- Variation in south-central and eastern areas of UP
- Strong preference for Anglicized [a] variant only in a few counties
- Primary division is diagonal (northwest vs. southeast)

Reading passage task: Participants

Participation criteria:

- **Location:** From one of the six towns under investigation
- **Residency:** Must have spent 80% or more of their life in the same town
- **Education:** Must have earned high school diploma, but no graduate school
- **Disorders:** No hearing problems or speech disorder



- Recruited participants via judgement sampling
- 98 participants total:

1 N=6 4 N=22

2 N=12 5 N=21

3 N=10 6 N=27

Reading passage task: Procedure

- All experiment sessions took place during summer 2017
- Collected additional demographic information via paper questionnaire and sociolinguistic interview:
 - (1) Age group:
 - Y = Young (18.0 - 38.9)
 - M = Middle (39.0 - 59.9)
 - O = Old (60.0 and up)
 - (2) Finnish-heritage:
 - Based on self-report
 - (3) Location:
 - The place where the participant spent over 80% of their life

Reading passage task: Materials

- 4 tokens of word 'sauna' embedded in reading passage:

...

They also plan to have a sauna.

...

Todd knows that he should burn some of those newspapers from the living room and put some dry wood in the sauna, if the plan is still to have a sauna this afternoon.

...

He thought about this as he plowed and forgot all about the sauna and the cleaning being done inside.

...

- Thus, across all 98 participants, $4 \times 98 = 392$ total tokens

Reading passage task: Analysis

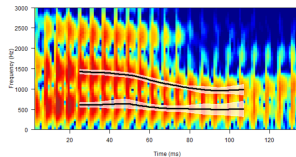
- Took several acoustic measures (Not discussed in this talk)
- Extracted target vowel from all tokens into separate soundfiles
- First author holistically coded as monophthong vs. diphthong
- Coded each token 3 times, using different cues each time:

(1) Listening to audio only

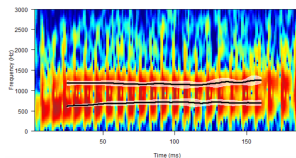
(2) Visual information only

- Frequency and bandwidth of F1 and F2
- Superimposed on color spectrogram

(3) Using audio and visual info



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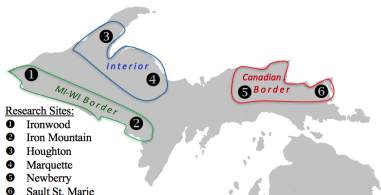
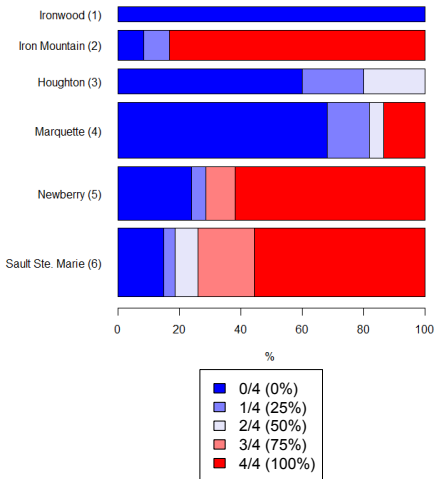


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- Different pseudorandomization for each pass through dataset
- All cases of disagreement were revisited to reach final decision

Reading passage task: Results (Town)

Percent of participants in each town
with each monophthongization rate
(blue=0%, red=100% monophthong)

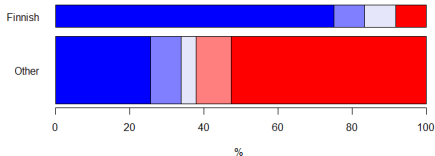


Observations (By town)

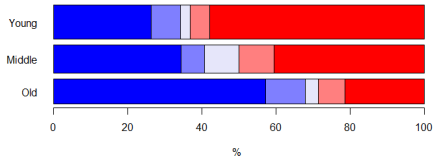
- Towns on the WI-MI border (Ironwood and Iron Mountain) show substantial variation
- UP Interior towns (Houghton & Marquette) use Finnish [aʊ]
- Towns on the Canadian border (Newberry and Sault Ste. Marie) use Anglicized [ɑ]

Reading passage task: Results (Heritage/Age)

Percent of participants by heritage
with each monophthongization rate
(blue=0%, red=100% monophthong)



Percent of participants by age group
with each monophthongization rate
(blue=0%, red=100% monophthong)



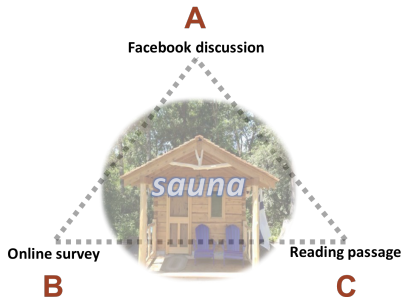
Observation (by heritage)

- Individuals with Finnish heritage use Finnish variant more

Observation (by age group)

- Older individuals use the Finnish variant more

Triangulating the three datasets



Summary of main findings

(A) Facebook discussion:

- Use of the Finnish variant indexes one's "Finnish-ness"
- Yet also associated with a broader UP regional identity

(B) Online survey:

- Strong attitudes only for the Finnish variant
- Primary geographical division: Northwest vs. southeast

(C) Reading passage:

- Finnish variant used more in northwest towns and by older, Finnish-heritage speakers

Limitations and future directions

- Limitations:

- (1) Online survey and reading passage data do not sample the entire Upper Midwest (or even the entire UP)
- (2) Since judgment sampling was used, the resulting samples may not be representative.

- Future directions:

- (1) Use acoustic measurements from reading passage data to reinforce holistic labels and account for subtle inter- and intra-speaker variation
- (2) Conduct focused longitudinal studies on the transitional areas
- (3) More carefully examine age effects in the online survey data

Concluding remarks

- Future of this linguistic variable
 - The Finnish variant is deeply rooted and currently the dominant pronunciation in most areas of the UP
 - Yet, apparent-time evidence suggests a change-in-progress toward the Anglicized variant among the younger generation
 - Accelerated by decline in number of people claiming Finnish ancestry?
- To sum up, the Anglicized and Finnish variants of 'sauna' are both found in Michigan's Upper Peninsula (along NW-SE division)
 - At present, considerable variation along the Canadian-Michigan and Wisconsin-Michigan borders

Questions and Answers

(Slides available at www.gvsu.edu/csd/)



Acknowledgements:

This talk would not be possible without the support of communities throughout the Upper Midwest and participants in Michigan's Upper Peninsula who participated in The Sauna Survey and The UP Talk study. This research was financially supported by Grand Valley State University and the Finlandia Foundational National.