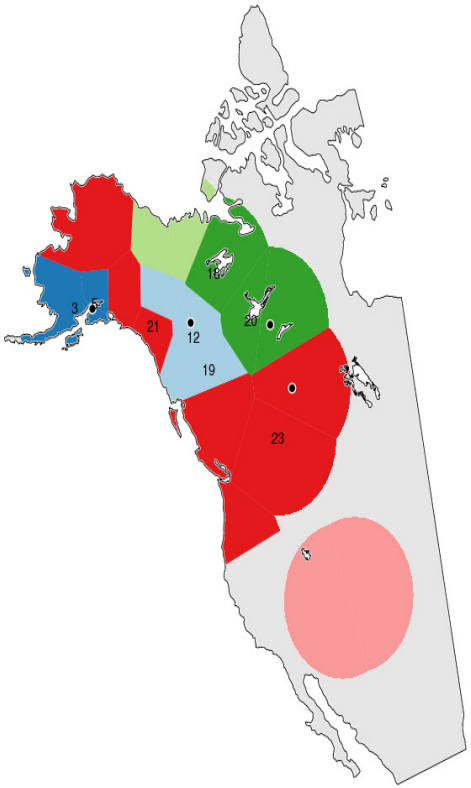
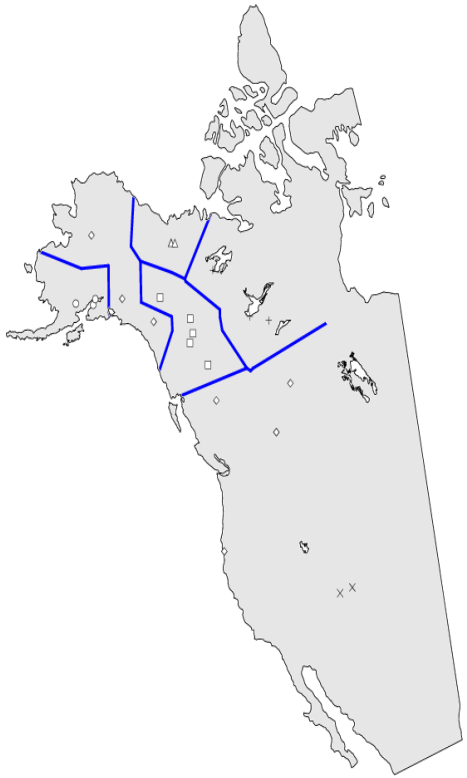
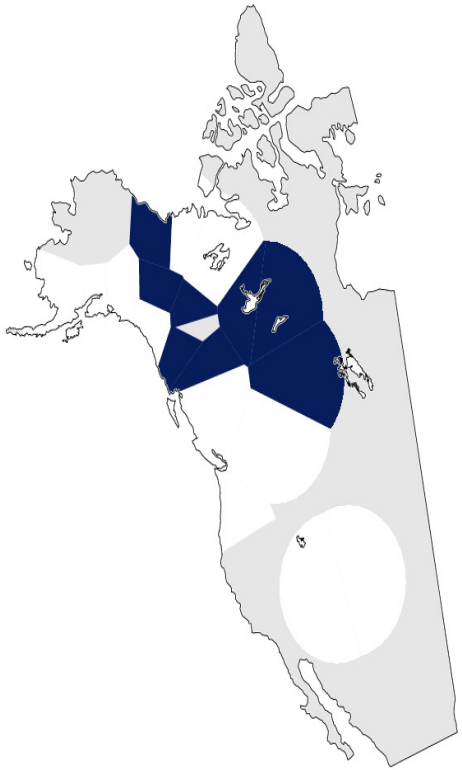
A cognitive linguistic approach to studying language relationships in Athapaskan



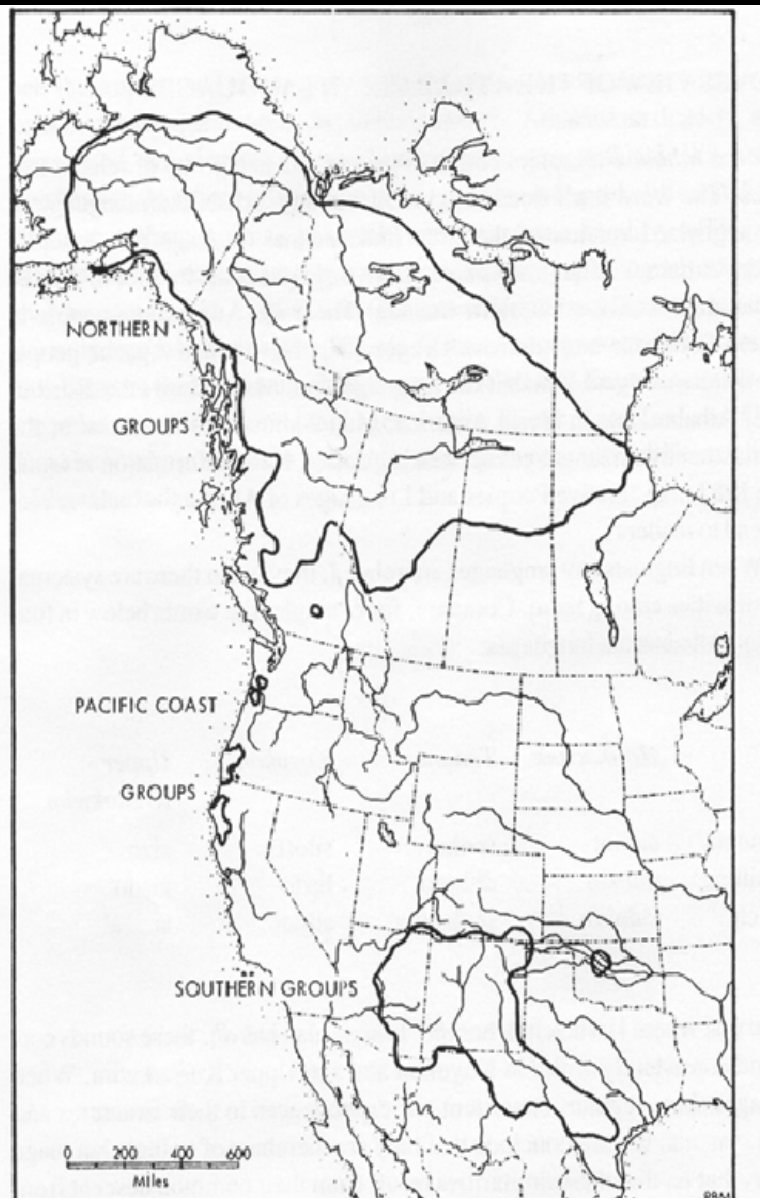




Conor Snoek

The Athapaskan Languages

- Spoken across the western half of North America
- Most languages endangered to varying degrees
- Large differences in the quality and extent of documentation
- No truly satisfactory classification



Problems in Sub-grouping

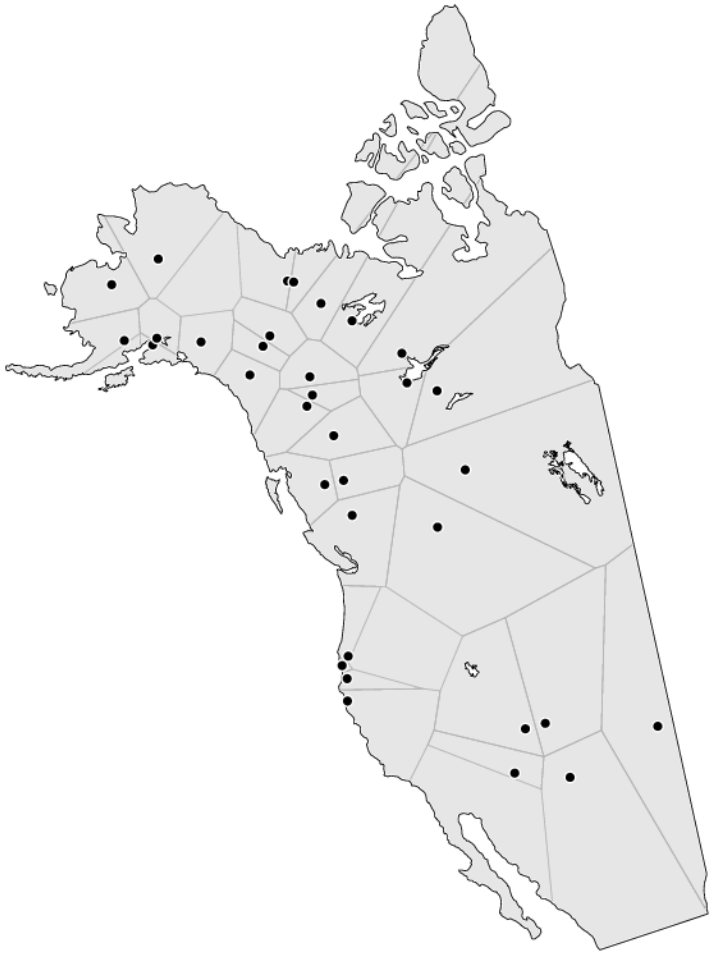
- “Athapaskan linguistic relations ... cannot be adequately described in terms of discrete family-tree branches.”
  (Krauss 1969)

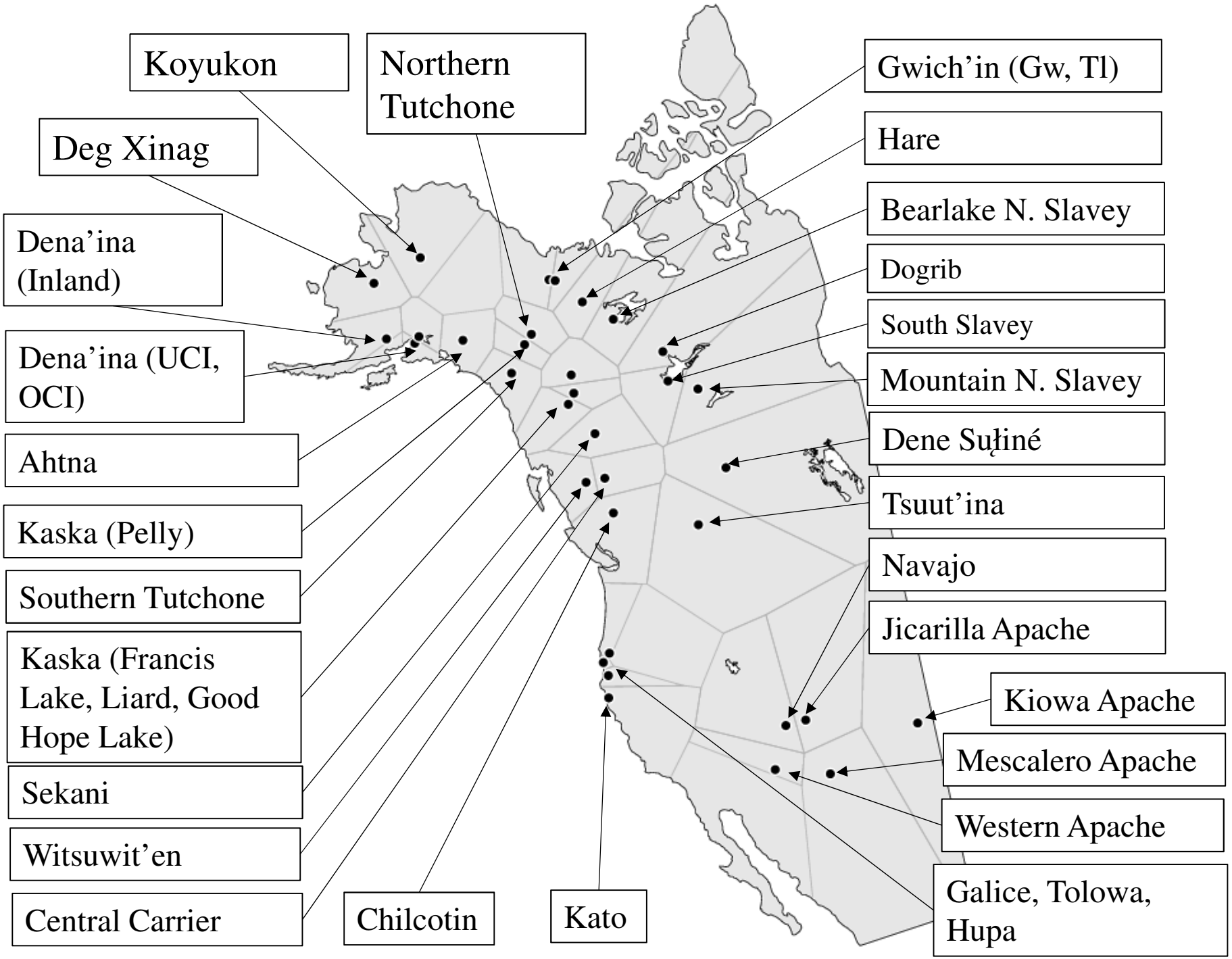
- ”...Athapaskan linguistic relationships, especially in the subarctic area, cannot be adequately described in terms of discrete family-tree branches.” (Krauss and Golla 1981)

- ”...intergroup communication has ordinarily been constant, and no northern Athapaskan language or dialect was ever completely isolated from the others for long”
  (Krauss and Golla 1981)

Sampling

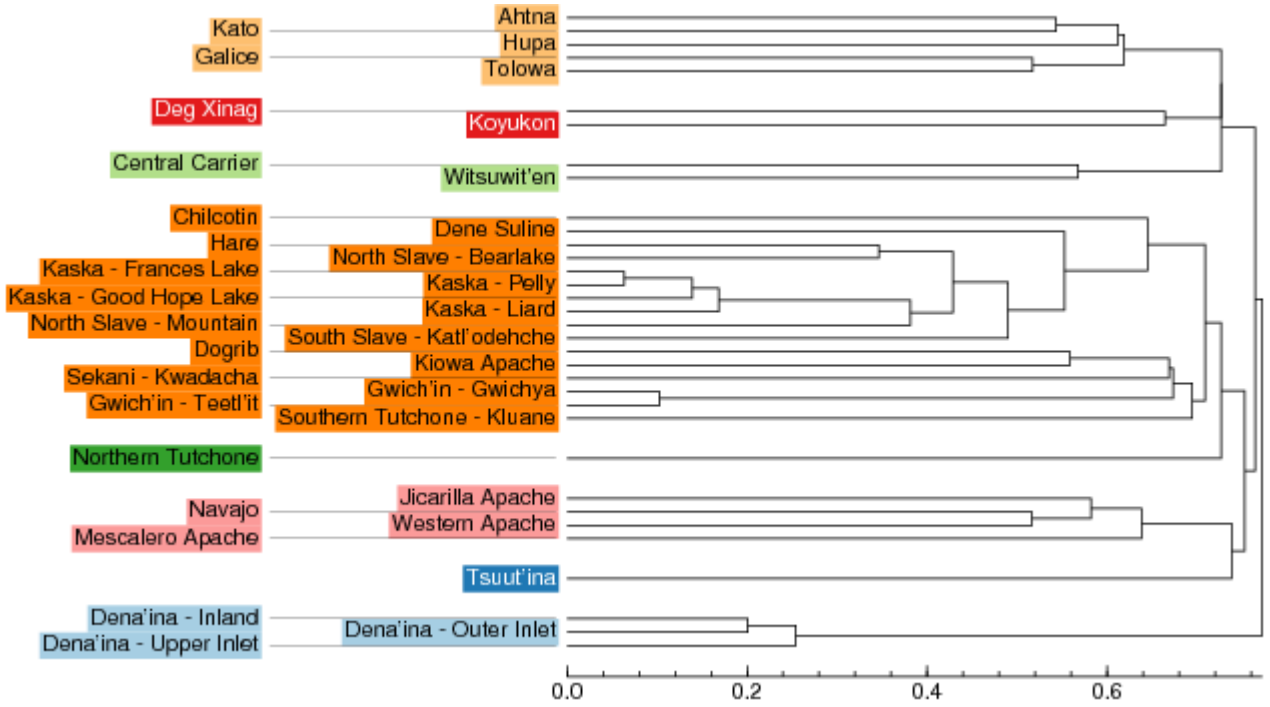
- The approach taken here is *onomasiological*: using a list of concepts to generate the data
- Semantic domain (BEETs):
  - Body parts: *leg*, *arm*, *stomach*
  - Ephemera: *hair*, *fingernails*
  - Effluvia: *blood*, *urine*
- 53 terms in total
- 34 languages and dialects
- 1479 terms under consideration




Koyukon
Northern Tutchone
Deg Xinag
Dena'ina (Inland)
Dena'ina (UCI, OCI)
Ahtna
Kaska (Pelly)
Southern Tutchone
Kaska (Francis Lake, Liard, Good Hope Lake)
Sekani
Witsuwit'en
Central Carrier
Chilcotin
Kato
Gwich'in (Gw, Tl)
Hare
Bearlake N. Slavey
Dogrib
South Slavey
Mountain N. Slavey
Dene Sųłiné
Tsuut'ina
Navajo
Jicarilla Apache
Kiowa Apache
Mescalero Apache
Western Apache
Galice, Tolowa, Hupa

Phonological similarity

- Languages can be compared and grouped according to the similarity of phonological strings representing BEETs
- This leads to aggregate similarity judgments between languages
- These judgments can be used to cluster languages

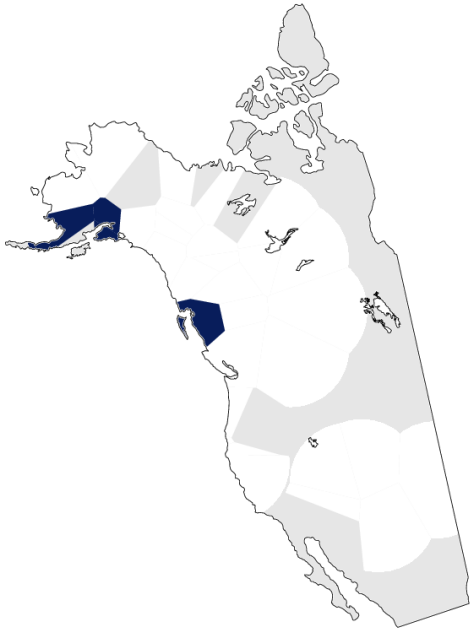


Semantic similarity

- Observing similarities in semantic structure:
  - Lexicalization patterns
  - Dena'ina (Inland): ‘leg’

    -qʰa-kʰəna

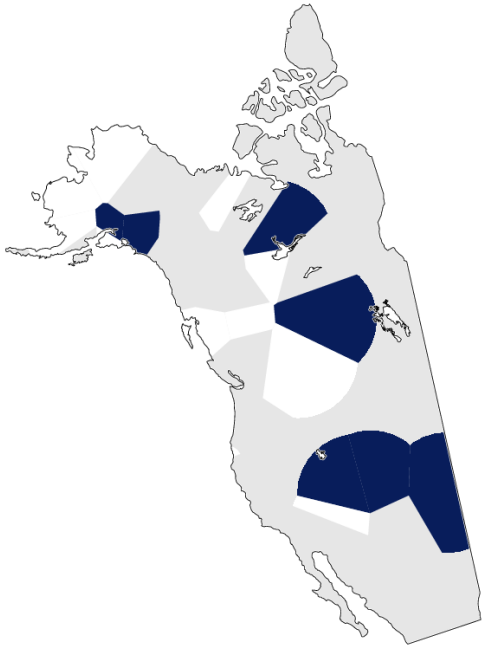
    ‘foot-base’



Dene Suɬiné: ‘eyelid’

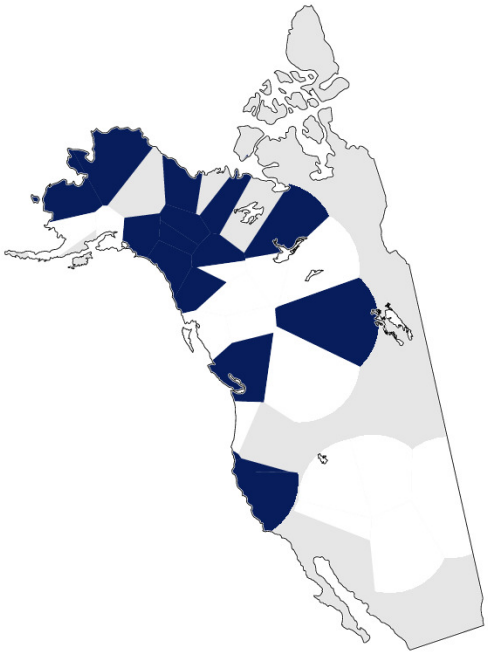
-na-ðéð

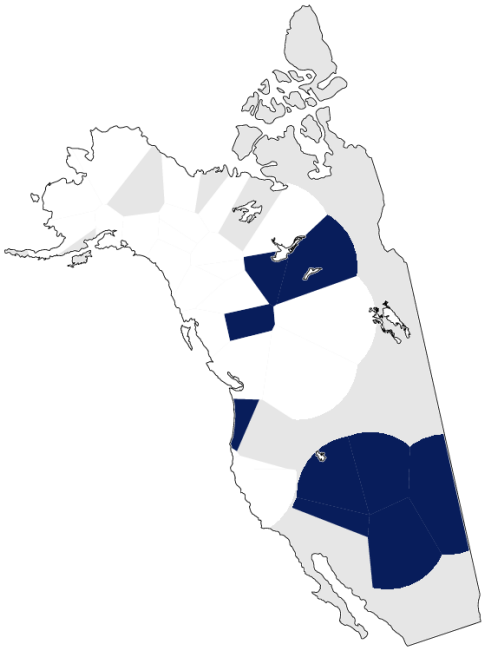
‘eye-skin’

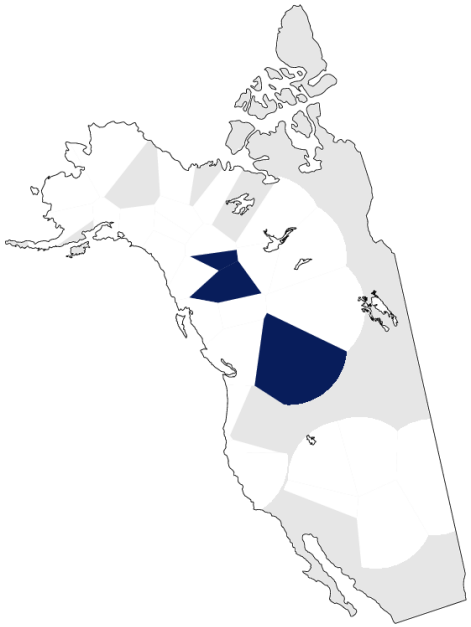


Semantic similarity

- Observing similarities in semantic structure:
  - Shared semantic shifts for target 'leg'
  - Chilcotin: *tθ'ɛ́n* ‘bone’
    Navajo *ɬʃáát* ‘lower leg, shin’
    Kaska (Liard): *ɣos* ‘thigh’





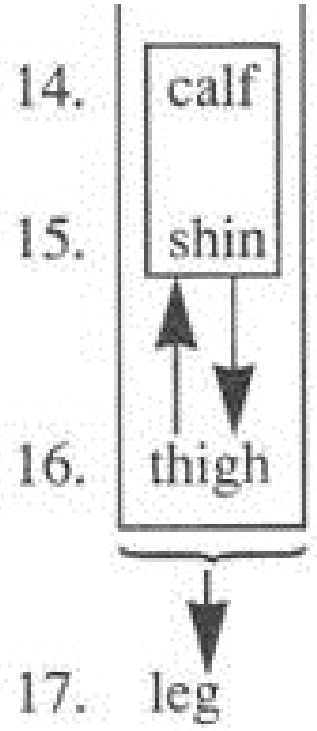


Semantic similarity

- Three changes:
  - ‘bone’ > ‘leg’
  - ‘thigh’ > ‘leg’
  - ‘lower, leg/shin’ > ‘leg’

- All three can be understood as metonymic changes between adjacent elements in the ICM of a human body

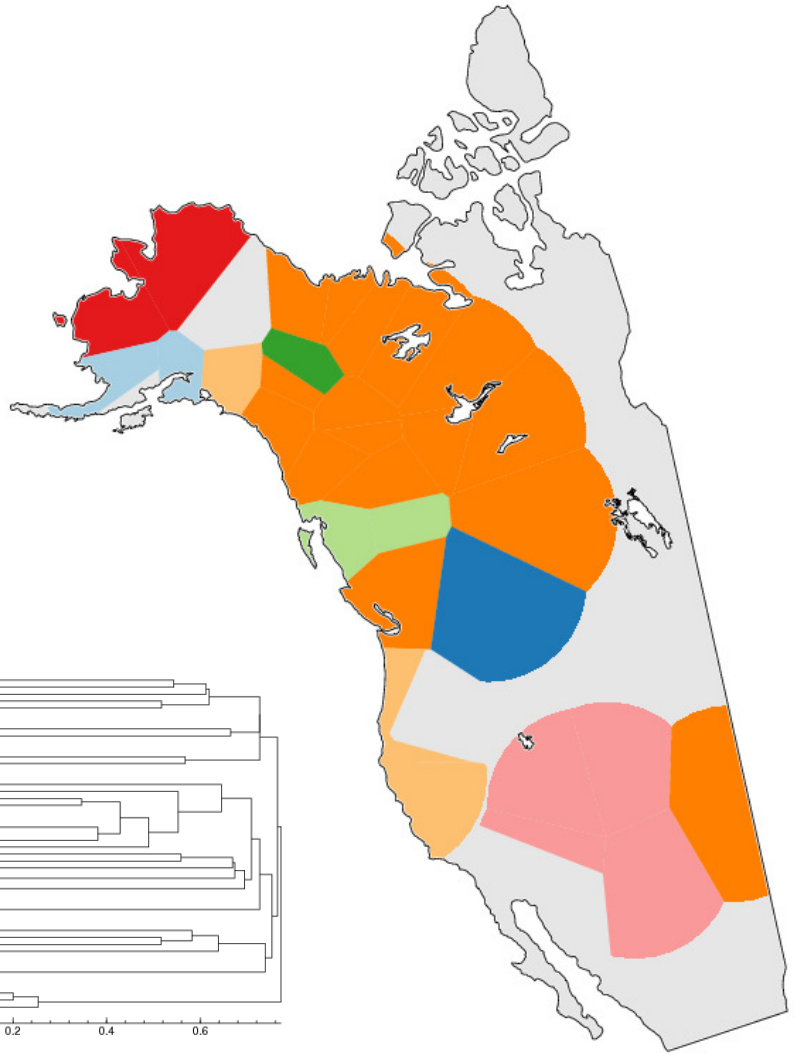
- Similar changes have also been observed in other language families (Wilkins 1996: 284)

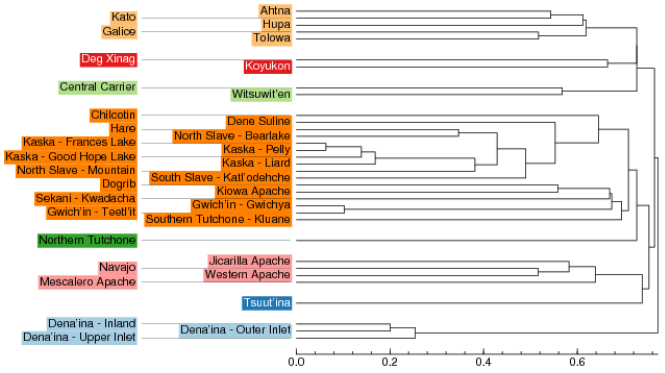


Semantic similarity

- This map is a geographic representation of the dendrogram showing phonological proximity

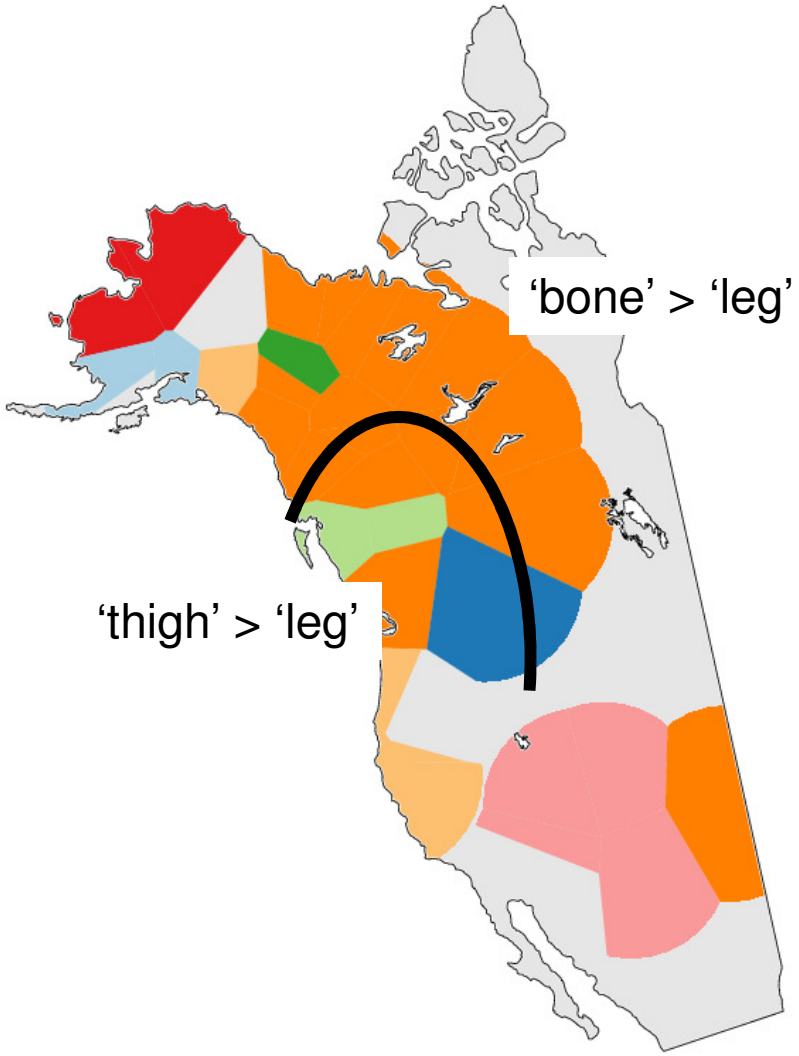
- The orange areas indicate a region of greater (aggregate) phonological similarity





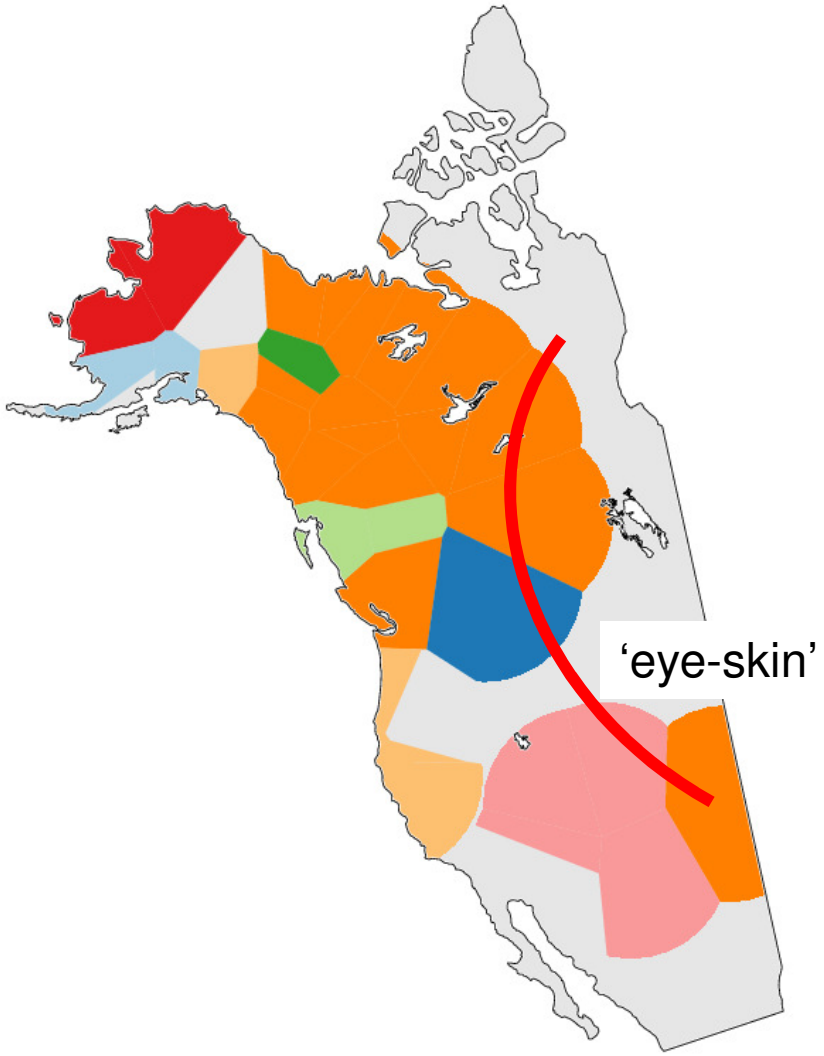
Semantic similarity

- This region is dissected by the semantic shifts (black line):
  - ‘bone’ > ‘leg’ to the east
  - ‘thigh’ > ‘leg’ to the west



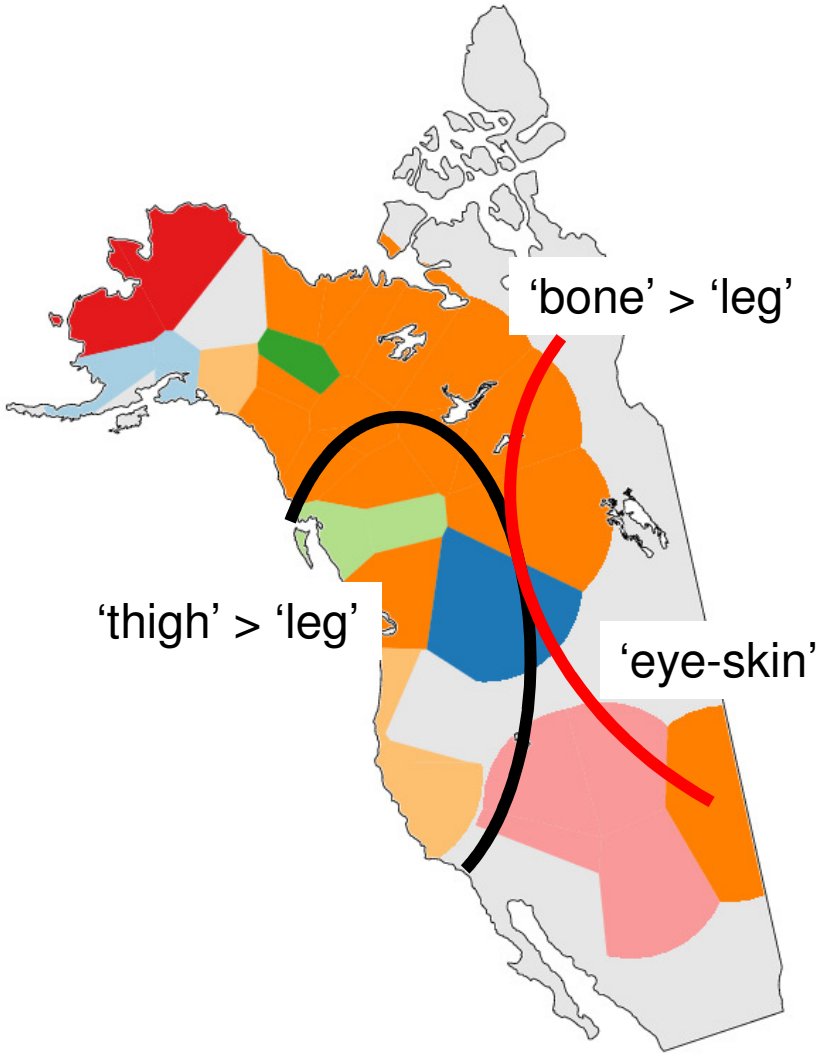
Semantic similarity

- A subgroup of the „orange“ languages also share the lexicalization pattern 'eye-skin' for 'eyelid' (red line)



Semantic similarity

- The orange areas indicate a region of greater (aggregate) phonological similarity
- This dissected by the semantic shifts (black line):
  - ‘bone’ > ‘leg’ to the east
  - ‘thigh’ > ‘leg’ to the west
- A subgroup of the ‚eastern‘ languages also share the lexicalization pattern 'eye-skin' for 'eyelid' (red line)



Language relationships in Athapaskan

- Language relationship and phylogentics in Athapaskan are 'a bit of a mess'
- BUT..it is a very interesting ~~mess~~ problem
- As scholars such as Krauss and Golla have pointed out the stability of Athapaskan lingusitic systems has been underminded by very fluid interactions and exchanges among Athapaskan languages speaking communities
- While Cognitive Linguistics provides us with excellent tools to carry out detailed semantic analyses: ICMs, metaphor, metonymy, etc.
- Solving this problem will require going beyond semantics and phonology and looking at it from the perspectives of different kinds of data (ethnohistorical, archaeological, etc.)

Outlook

- Furthermore...
- If we are to follow Dr. Bybee in considering languages as Complex Adapative Systems, perhaps we should also consider language families as Complex Adapative Systems

- I believe that taking this seriously requires looking beyond lingusitics to related fields, such as for example archaeology and anthropology

- LOOKING FORWARD: more inter-disciplinary interactions!

Masi chogh!

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