# 中央アラスカ・ユピック語の 曖昧文理解における 語順・格表示・一致の効果

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# 1. Central Alaskan Yup'ik

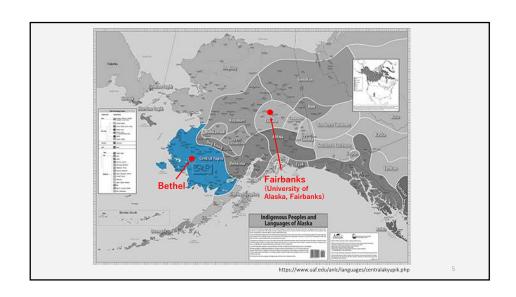
# Today's presentation

- 1. Central Alaskan Yup'ik
- 2. Word Order, Case Marking, and Agreement
- 3. Word Order Change?

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# Central Alaskan Yup'ik (Yup'ik)

- Eskimo-Aleut Language
- 10,000 Speakers (Lewis, Gary, and Charles, 2016)











2. Word Order, Case Marking, and Agreement

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# Word Order, Case Marking, and Agreement

### Properties of Yup'ik from the previous studies

- I. Free word order (Jacobson & Jacobson, 1995; Miyaoka, 2012)
- II. SOV dominance (Fortescue, 1998; Jacobson & Jacobson, 1995; Miyaoka, 2012)
- III. Rich case marking and agreement system

(Jacobson & Jacobson, 1995; Miyaoka, 2012)

# Word Order, Case Marking, and Agreement

- Object:
  - ➤ The word order cue is used to determine grammatical relations?
  - ➤If so, how is the word order cue related to the ambiguity of case marking and agreement?
- My study in 2020-2021
  - 1) Interview survey (N = 1)
  - 2) Acceptability rating (N = 24)

# Factors -Word Order-

Word Order: SOV/SVO/OSV/OVS

1. SO Order: SO/OS

2. Verb Position: Middle/Final

e.g. SVO  $\rightarrow$  SO Order: SO, Verb Position: Middle

# Factors –Case Marking and Agreement-

| Case   | Agreement | SUB-OBJ                               | Example stimuli (SOV)                                                                                                                                |
|--------|-----------|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unamb. | Unamb.    | 3SG-3DU, 3SG-3PL,<br>3DU-3SG, 3PL-3SG | Arna-m angute-t tangerr-ai. woman-ERG.SG man-ABS.PL see-IND.3SG/3PL "The woman is seeing the men."                                                   |
| Unamb. | Amb.      | 3SG-3SG                               | Arna-m angun-ø tangerr-aa.<br>woman-ERG,SG man-ABS,PL see-IND,3SG/3SG<br>"The woman is seeing the man."                                              |
| Amb.   | Unamb.    | 3DU-3PL, 3PL-DU                       | Arna-t angu-k tangerr-gket. woman-ERG or ABS.PL man-ERG or ABS.DU see-IND.3PL/3DU "The women are seeing the two men."                                |
| Amb.   | Amb.      | 3DU-3DU, 3PL-3PL                      | Arna-t angte-t tangerr-ait.  woman-ERG or ABS,PL man-ERG or ABS,PL see-IND.3PL/3PL "The women are seeing the men" or "The men are seeing the women." |

# Factors - Case Marking and Agreement-

| "The women are seeing the two men."  Arna-t angte-t tangerr-ait.  Woman-ERG or ABS.PL man-ERG or ABS.PL see-IND.3PL/3PL  "The women are seeing the men"                                                                                                                                                                                                                               | Case   | Agreement | SUB-OBJ          | Example stimuli (SOV)                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------|------------------|-------------------------------------------------------|
| Unamb. Amb. 3SG-3SG woman-ERG,SG man-ABS,PL see-IND,3SG/3SG "The woman is seeing the man."  Arna-t angu-k tangerr-gket.  Amb. Unamb. 3DU-3PL, 3PL-DU woman-ERG or ABS,PL man-ERG or ABS,DU see-IND,3PL/3DU "The women are seeing the two men."  Arna-t angte-t tangerr-ait.  Arna-t angte-t "The woman-ERG or ABS,PL man-ERG or ABS,PL see-IND,3PL/3PL "The women are seeing the men" | Unamb. | Unamb.    |                  | woman-ERG.SG man-ABS.PL see-IND.3SG/3PL               |
| Amb. Unamb. 3DU-3PL, 3PL-DU woman-ERG or ABS,PL man-ERG or ABS,DU see-IND.3PL/3DL "The women are seeing the two men."  Amb. Amb. 3DU-3DU, 3PL-3PL woman-ERG or ABS,PL man-ERG or ABS,PL see-IND.3PL/3PL "The women are seeing the men"                                                                                                                                                | Unamb. | Amb.      | 3SG-3SG          | woman-ERG.SG man-ABS.PL see-IND.3SG/3SG               |
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| or "The men are seeing the women."                                                                                                                                                                                                                                                                                                                                                    | Amb.   | Amb.      | 3DU-3DU, 3PL-3PL | woman-ERG or ABS_PL man-ERG or ABS_PL see-IND.3PL/3PL |

Factors - Case Marking and Agreement-

| Case   | Agreement | SUB-OBJ                               | Example stimuli (SOV)                                                                                                                                  |
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| Unamb. | Amb.      | 3SG-3SG                               | Arna-m angun-ø tangerr-aa.<br>woman-ERG.SG man-ABS.PL see-IND.3SG/3SG<br>"The woman is seeing the man."                                                |
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# Methods

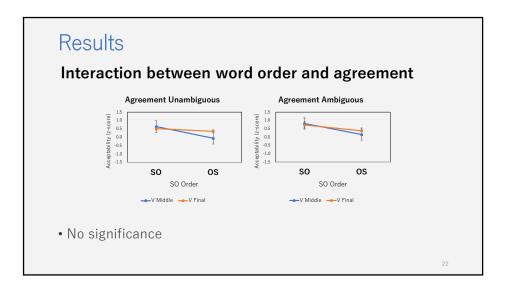
Factors

| 1 | SO order            | SO (SOV, SVO) /OS (OSV, OVS)        |
|---|---------------------|-------------------------------------|
| 2 | Verb Position       | Middle (SVO, OVS) /Final (SOV, OSV) |
| 3 | Case Ambiguity      | Unambiguous/Ambiguous               |
| 4 | Agreement Ambiguity | Unambiguous/Ambiguous               |

- 24 native Yup'ik speakers
- Acceptability rating task (1-8)



# Results Interaction between word order and case marking Case Unambiguous Case Ambiguous Case Ambiguous So Order Order V Middle V Final SO order × Verb Position × Case Ambiguity \*\* (t = 3.09, $\rho = 0.002$ )



### Discussion

### Judgement of grammatical relations in Yup'ik

- Yup'ik speakers depend on word order and case marking.
- They depend more on word order when the case marking cue is ambiguous.
- The agreement cue is not significantly used even when the case marking is ambiguous.

(Emura, in press)

3. Word Order Change?

### **Previous Studies**

### **SOV** dominance

- SOV is the most frequently used (Fortescue, 1983).
- ··· the basic SOV order is ··· (Mithun, 1999: 203)
- ··· the language does show a measurable preference for APS (or SOV) as the unmarked order. (Miyaoka, 2012: 181)

|                                              | (S)(O)V | (S)VO | (O)VS | osv | VX |
|----------------------------------------------|---------|-------|-------|-----|----|
| Alaskan Yup'ik texts                         |         |       |       |     |    |
| Tutgara'urluum<br>(Tennant &                 | 28      | 7     | 4     | 0   | 1  |
| Bitar, 1981:                                 |         |       |       |     |    |
| 2-3; ca. 1975<br>Ungungssilkuk<br>(Tennant & | 71      | 2     | 1     | 1   | 9  |
| Bitar, 1981:<br>48-53; ca. 1975)             |         |       |       |     |    |
| Qaillun piciqat<br>Yupiit<br>(Afcan, 1976)   | 24      | 17    | 5     | 1   | 5  |

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### 

• SOV = SVO (t = -1.60, p = 0.380)

→V Middle →V Final

• SOV < SVO  $^{\dagger}$  (t = -2.30, p = 0.096)

SOV dominance → SOV/SVO dominance

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# Word Order Change?

General word order change (Gell-Mann & Ruhlen, 2011)

SOV > SOV/SVO > SVO

Why SOV order shifts to SVO order?

Psychological factors:

- Noisy channel hypothesis (Gibson et al., 2013)
- Role-conflict hypothesis (Hall et al., 2013)

# Word Order Change?

### Noisy channel hypothesis

- Actor-Patient-Action (SOV) is ambiguous in a noisy communication situation.
- OSV should be avoided. OVS is OK.

### SOV Mary John kicks SVO Mary kicks John

### Role-conflict hypothesis

- Patient-Action (OV) is role-conflict in a reversible condition.
- OVS should be avoided. OSV is OK.

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# Word Order Change? Case Ambiguous Overall o.o o.o →V Middle →V Final →V Middle →V Final In Yup'ik, OVS was significantly less acceptable. → compatible with the role-conflict model → The motivation of word order shift is OV avoidance?

# Word Order Change?

### The effect of English

- One need only consider the influence English has exerted there in recent years… (Fortescue, 1993: 282)
- Almost all the Yup'ik speakers speak English, the rigid SVO language.
- The use of Yup'ik in the classroom was prohibited in 1880 1960 (Miyaoka, 1980).

# Summary

- · Judgment of grammatical relations in Yup'ik
  - The word order cue is used even in a free word order language.
  - The weight of the word order cue is affected by the ambiguity of the case marking cue.
- Word order change in Yup'ik
  - The acceptability data of Yup'ik shows a shift from SOV dominance to SOV/SVO dominance.
  - >The shift might be motivated by avoidance of OV order or contact with English.

### Quyana chakneq "Thank you so much"



Sunset From Bethel

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