Apparent cross-clausal agreement with obliques in Kalaallisut is prolepsis*

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1 Introduction

- **Puzzle:** Agreement in Kalaallisut is typically controlled only by core arguments, (1) vs. (2), but cross-clausal agreement may seemingly be controlled by an embedded oblique argument in (3)[1]

(1) Naja-p **illit** eqqaa-**vaatit**.
Naja-ERG 2SG.ABS mention-3SG>2SG
'Naja mentioned you.'

(2) *__Ilin-nut__ allap-**pakkit**.
2SG-ALL write-1SG>2SG
Intended: 'I wrote to you.'

(3) Nalu-nngi-**lakkit** [$_{CP}$ **ilin-nut** allat-toq].
not.know-NEG-1SG>2SG.NEG 2sg-ALL write-3SG.PART
'I know that s/he wrote to you.'

- **Proposed solution:** Apparent long-distance agreement (LDA) with the oblique in (3) is actually **prolepsis**—that is, local agreement with a matrix *pro*, which is co-indexed with the embedded oblique

(4) [... *pro*$_i$ V-AGR [$_{CP}$ ... OBL$_i$ V]]
'_____'

- Evidence for this analysis comes from
  - The distribution of overt pronouns that are co-indexed with the oblique
  - A lack of island effects
  - A lack of locality effects with multiple embeddings
- We additionally highlight several similarities between proleptic objects and thematic objects in Kalaallisut
- In particular, proleptic and thematic objects are accessible to the same:
  - Positional alternations
  - Case alternations
  - Agreement alternations
  - Transitivity alternations

➤ These similarities suggest a structural parallel between proleptic objects and thematic objects

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[1]The following abbreviations are used in glossing: 1/2/3 = first/second/third person, ABS = absolutive, ALL = allative, APPL = applicative, CONT = contemporative, EMPH = emphatic, ERG = ergative, GEN = genitive, MOD = modalis, NEG = negative, PART = participial, PL = plural, PROS = prospective, SG = singular, X = someone.

Roadmap:
§2 Language background
§3 Apparent agreement with obliques
§4 Agreement is with a matrix non-oblique
§5 Evidence for prolepsis
§6 The status of the proleptic object

2 Language background

- Kalaallisut is a member of the Inuit-Yupik-Unangan language family and the official language of Greenland
- There are around 50,000 speakers in Greenland, and upward of 17,000 speakers living in Denmark

➤ The uncited data in this presentation are provided by the fourth author, Ellen Thrane

- The language is polysynthetic with noun incorporation and exclusively suffixing; *pro* drop of arguments is common

(5) Naja nutaa-mik sikkile-qar-poq.
Naja.ABS new-MOD bicycle-have-3SG
'Naja has a new bicycle.'

(6) misigi-nngi-ssa-nngua-qi-nir-aa!
sense-NEG-PROS-little-EMPH-x.wonder-3SG>3SG
'He must've had not the least inkling of it!'
Qillarsuakkunik oqalualaaq (Qillarsuaq's Saga, via Bittner 2007)

- Case alignment is ergative-absolutive, and agreement can only target ERG and ABS arguments

(7) Naja-p Juuna ikior-paa.
Naja-ERG Juuna.ABS help-3SG>3SG
'Naja helped Juuna.'

(8) Juuna angerla-jaar-poq.
Juuna.ABS leave-early-3SG
'Juuna left early.'

- Subject and object agreement forms are portmanteaux, (7)
- The unmarked word order is SOV, (7), though other orders are possible
- Complement clauses may precede, (9), or follow, (10), the matrix verb

(9) [$_{CP}$ Naja angerla-jaar-toq] eqqaama-vara.
Naja.ABS leave-early-3SG.PART remember-1SG>3SG
'I remember that Naja left early.'

(10) Eqqaama-vara [$_{CP}$ Naja angerla-jaar-toq].
remember-1SG>3SG Naja.ABS leave-early-3SG.PART
'I remember that Naja left early.'

- Complement clauses occur in one of four dependent moods and we focus on the so-called 'participial' mood here

- In addition to ergative and absolutive core arguments, there are six oblique cases: ALLATIVE, ABLATIVE, MODALIS, LOCATIVE, PROLATIVE, EQUATIVE
- Our focus in on the allative, which has a dative-like distribution

3 Apparent agreement with obliques

- The matrix verb can seemingly (optionally) agree with an oblique inside a complement clause

(11) Naja-p nalu-nngi-**laatit** [$_{CP}$ atuakka-kka **ilin-nut**
Naja-ERG not.know-NEG-3SG>2SG.NEG book-1SG>3PL.ABS 2SG-ALL
tunni-uk-kikka].
give-APPL-1SG>3PL.PART
'Naja knows that I gave my books to you.'

(12) Eqqaama-**vassi** [$_{CP}$ poortukka-t **ilin-nut** **Naja-mul-lu** nassiul-lugit].
remember-1SG>2PL package-PL.ABS 2SG-ALL Naja-ALL-and send-3PL.CONT
'I remember that I sent the packages to you and Naja.'

(13) Ippassaq Juuna-p eqqaa-**vaatit** [$_{CP}$ siorna tamatigut **ilin-nut** allat-tunga].
yesterday Juuna-ERG mention-3SG>2SG last.year always 2SG-ALL write-1SG.PART
'Yesterday Juuna mentioned that I always wrote to you last year.'

- This pattern of apparent cross-clausal agreement is possible with core arguments as well (Fortescue 1984:38, Sadock 2003:32)[2]

(14) *Agreement controller = embedded transitive subject*
Eqqaama-**vakkit** [$_{CP}$ kikkut **illit** ikior-itit].
remember-1SG>2SG who.PL 2SG.ERG help-2SG>3PL.PART
'I remember who you helped.'

(15) *Agreement controller = embedded intransitive subject*
Juuna-p eqqaa-**vaatit** [$_{CP}$ ippassaq **illit** angerla-jaar-tutit].
Juuna-ERG mention-3SG>2SG yesterday 2SG.ABS leave-early-2SG.PART
'Juuna mentioned that you left early yesterday.'

(16) *Agreement controller = embedded object*
Eqqaama-**vakka** [$_{CP}$ Naja-p illi-lu **meeqqa-t** ikior-isi].
remember-1SG>3PL Naja-ERG 2SG.ERG-and child-PL.ABS help-2PL>3PL
'I remember that you and Naja helped the children.'

- **Question:** How does the matrix verb come to expone object agreement for the ϕ-features of the embedded oblique in (11)-(13), given that:
  1. Object agreement is typically with a structurally local object
  2. Agreement is generally restricted to absolutive and ergative DPs (case discrimination)

[2]We will set aside whether the same analysis is appropriate for core arguments, though see Mikkelsen and Thrane (to appear) for arguments that apparent LDA with embedded core arguments involves covert hyperraising and not prolepsis.

4 Agreement is with a matrix non-oblique

- When an embedded core argument controls matrix agreement, the agreement controller can appear in the matrix clause

(17) *Agreement controller = embedded transitive subject*

Illit eqqaama-**vakkit** [$_{CP}$ ikior-itit].
2SG.ABS remember-1SG>2SG help-2SG>3PL.PART
'I remember that you helped them.'

(18) *Agreement controller = embedded intransitive subject*

Juuna-p **illit** eqqaa-**vaatit** [$_{CP}$ angerla-jaar-tutit].
Juuna-ERG 2SG.ABS mention-3SG>2SG leave-early-2SG.PART
'Juuna mentioned that you left early.'

(19) *Agreement controller = embedded object*

Meeqqa-t eqqaama-**vakka** [$_{CP}$ illit ikior-itit].
child-PL.ABS remember-1SG>3PL 2SG.ERG help-2SG>3PL.PART
'I remember that you helped the children.'

- When an embedded oblique controls matrix agreement, the agreement controller cannot appear in the matrix clause

(20) * Naja-p **ilin-nut** nalu-nngi-**laatit** [$_{CP}$ atuakka-kka
Naja-ERG 2SG-ALL not.know-NEG-3SG>2SG.NEG book-1SG>3PL.ABS
tunni-uk-kikka].
give-APPL-1SG>3PL.PART
Intended: 'Naja knows that I gave my books to you.'

(21) * **Ilin-nut Naja-mul-lu** eqqaama-**vassi** [$_{CP}$ poortukka-t nassiul-lugit].
2SG-ALL Naja-ALL-and remember-1SG>2PL package-PL.ABS send-3PL.CONT
Intended: 'I remember that I sent the packages to you and Naja.'

(22) * Ippassaq Juuna-p **ilin-nut** eqqaa-**vaatit** [$_{CP}$ siorna tamatigut allat-tunga].
yesterday Juuna-ERG 2SG-ALL mention-3SG>2SG last.year always write-1SG.PART
Intended: 'Yesterday Juuna mentioned that I always wrote to you last year.'

- An absolutive pronoun that is coreferent with the embedded oblique can appear in the matrix clause

(23) Naja-p **illit** nalu-nngi-laatit [$_{CP}$ **ilin-nut** atuakka-kka
Naja-ERG 2SG.ABS not.know-NEG-3SG>2SG.NEG 2SG-ALL book-1SG>3PL.ABS
tunni-uk-kikka].
give-APPL-1SG>3PL.PART
'Naja knows that I gave my books to you.'

(24) **Ilissi** eqqaama-vassi [$_{CP}$ **ilin-nut Naja-mul-lu** poortukka-t nassiu-llugit].
2PL.ABS remember-1SG>2PL 2SG-ALL Naja-ALL-and package-PL.ABS send-3PL.CONT
'I remember that I sent the packages to you and Naja.'

(25) Ippassaq Juuna-p **illit** eqqaa-vaatit [$_{CP}$ siorna tamatigut **ilin-nut**
yesterday Juuna-ERG 2SG.ABS mention-3SG>2SG last.year always 2SG-ALL
allat-tunga].
write-1SG.PART
'Yesterday Juuna mentioned that I always wrote to you last year.'

- The availability of an absolutive pronoun in the matrix clause that doubles the oblique raises the possibility that this absolutive pronoun is the true agreement controller
  - The absolutive agreement controller can be overt (doubling structure)
  - The absolutive agreement controller can be *pro*-dropped ("LDA"-like structure)
- If an absolutive element in the matrix clause is the agreement controller, then this pattern does not actually involve LDA with an embedded oblique
- There are two clear possibilities for analyzing the absolutive element in the matrix clause
  - The absolutive agreement controller moves from the embedded clause into the matrix clause (i.e. hyperraising-to-object)
  - The absolutive agreement controller originates in the matrix clause (i.e. prolepsis)

➤ We argue that a prolepsis account of this construction is better supported by the Kalaallisut data

5 Evidence for prolepsis

- One type of doubling structure involves a pronoun in the matrix clause with an R-expression in the embedded clause
- A more traditional prolepsis configuration with the R-expression in the matrix clause is also possible

(26) **Ivalu illil-lu** nalunngi-lassi [$_{CP}$ Juuna-p poortukka-t **ilissi-nnut**
Ivalu.ABS 2SG.ABS-and know-1SG>2PL.NEG Juuna-ERG package-PL.ABS 2PL-ALL
nassi-uk-kai].
send-APPL-3SG>3PL.PART
'I know that Juuna sent the packages to Ivalu and you.'

(27) **Illit Naja-lu** eqqaama-vassi [$_{CP}$ Juuna **ilissin-nut** allat-toq].
2SG.ABS Naja.ABS-and remember-1SG>2PL Juuna.ABS 2PL-ALL write-3SG.PART
'I remember that Juuna wrote to you and Naja.'

(28) **Ivalu uanga-lu** Juuna-p eqqaa-vaatigut [$_{CP}$ aningaasa-t **uagutsin-nut**
Ivalu.ABS 1SG.ABS-and Juuna-ERG mention-3SG>1PL money-PL.ABS 1PL-ALL
tunni-uk-kitit].
give-APPL-2SG>3PL
'Juuna mentioned that you gave the money to Ivalu and me.'

➤ In this section we present three pieces of evidence in support of a prolepsis analysis of this construction

① The absolutive element that doubles the oblique cannot appear anywhere in the embedded clause

(29) * Naja-p eqqaama-vaatit [$_{CP}$ Juuna **illit** tamatigut **ilin-nut**
Naja-ERG remember-3SG>2SG Juuna.ABS 2SG.ABS always 2SG-ALL
soqutiginnit-toq].
interested.in-3SG.PART
Intended: 'Naja remembers that Juuna was always interested in you.'

(30) * Ippassaq Juuna-p eqqaa-vaatit [$_{CP}$ siorna {**illit**} tamatigut {**illit**} **ilin-nut**
yesterday Juuna-ERG mention-3SG>2SG last.year 2SG.ABS always 2SG.ABS 2SG-ALL
allat-tunga].
write-1SG.PART
Intended: 'Yesterday Juuna mentioned that I always wrote to you last year.'

- The unavailability of a doubling pronoun in the same clause as the oblique suggests that the absolutive pronoun may not be generated in the same clause as the oblique
  - Under a hyperraising account, hyperraising of the absolutive would have to be obligatory
  - A prolepsis analysis predicts that the proleptic object should not be able to appear in the embedded clause

② The embedded oblique can appear inside an island (e.g. coordinate structure; Ross 1967) either with or without an overt absolutive double in the matrix clause

(31) Juuna-p nalunngi-**laanga** [$_{CP}$ Naja-p aningaasa-t [**uan-nut Hansi-mul-lu**]
Junna-ERG know-3SG>1SG.NEG Naja-ERG money-PL.ABS 1SG-ALL Hansi-ALL-and
tunni-uk-kai].
give-APPL-3SG>3PL.PART
'Juuna knows that Naja gave the money to me and Hansi.'

(32) **Illit** eqqaama-vakkit [$_{CP}$ Juuna [***pro*** **Naja-mul-lu**] allat-toq].
2SG.ABS remember-1SG>2SG Juuna.ABS 2SG.ALL Naja-ALL-and write.to-3SG.PART
'I remember that Juuna wrote to you and Naja.'

(33) **Illit** eqqaa-vakkit [$_{CP}$ Juuna [**ilin-nut Naja-mul-lu**] allat-toq].
2SG mention-1SG>2SG Juuna.ABS 2SG-ALL Naja-ALL-and write-3SG.PART
'I mentioned that Juuna wrote to you and Naja.'

- The island facts support a prolepsis account over an account that would involve movement between the embedded position of the oblique and the matrix clause

③ Three-level embedding does not show locality effects in agreement

- When the oblique is in the lowest clause, the highest clause can exhibit agreement with the oblique
- A clause that does not exhibit agreement with the oblique can intervene between the oblique and the clause containing agreement

(34) **Illit** taku-**akkit** [$_{CP}$ Juuna-p malugi-gaa [$_{CP}$ Naja-p iipilit
2SG.ABS see-1SG>2SG Juuna-ERG notice-3SG>3SG.PART Naja-ERG apple.ABS.PL
ilin-nut tunni-uk-kai]].
2SG-ALL give-APPL-3SG>3PL.PART
'I saw that Juuna noticed that Naja gave apples to you.'

(35) Taku-**akka** [$_{CP}$ malugi-git [$_{CP}$ Juuna-p kaagi **meeqqa-nut**
see-1SG>3PL notice-2SG>3SG.PART Juuna-ERG cake.ABS.SG child-ALL.PL
tunni-uk-kaa]].
give-APPL-3SG>3SG.PART
'I saw that you noticed that Juuna gave cake to the children.'

- The fact that agreement can "skip over" a clause is unexpected if the derivation of agreement involves movement, which should be successive-cyclic
- Prolepsis is not subject to the same type of locality constraints as movement

Overall, the three types of evidence presented here support a prolepsis account:

- Impossibility of absolutive double within the same clause as the oblique
- Insensitivity to islands
- Lack of locality effects in three-level embedding

6 The status of the proleptic object

- Our analysis raises several questions about the status of the proleptic object:
  - Where is it generated within the matrix clause?
  - Is it an argument of the matrix verb?
  - How does it relate syntactically and semantically to the embedded CP?
- Prior work on prolepsis has offered a variety of answers to these questions (e.g. Davies, 2005; Salzmann, 2017; Lohninger et al., 2022)
  - Kalaallisut may be especially informative in teasing apart typological and analytical options
  - Morphologically rich case and agreement systems, which interact with argument and clause structure (e.g. Bittner and Hale, 1996)

➤ With an eye towards resolving these questions in future work, we note multiple parallels between proleptic objects and thematic objects

  - These parallels suggest that proleptic and thematic objects are both accessible to the same syntactic dependencies

① Proleptic objects can participate in the same word order alternations as thematic objects

- Kalaallisut displays base (neutral) SOV word order, but SVO is also possible
  - OV order is available for both thematic and proleptic objects

(36) Juuna-p **uanga** nassuiar-paanga [$_{CP}$ Naja angerla-jaar-toq].
Juuna-ERG 1SG.ABS explain-3SG>1SG Naja.ABS leave-early-3SG.PART
'Juuna explained to me that Naja left early.'

(37) Ippassaq Juuna-p **illit** eqqaa-vaatit [$_{CP}$ siorna tamatigut **ilin-nut**
yesterday Juuna-ERG 2SG.ABS mention-3SG>2SG last.year always 2SG-ALL
allat-tunga].
write-1SG.PART
'Yesterday Juuna mentioned that I always wrote to you last year.'

  - VO order is also available for both thematic and proleptic objects

(38) Juuna-p nassuiar-paanga **uanga** [$_{CP}$ Naja angerla-jaar-toq].
Juuna-ERG explain-3SG>1SG 1SG.ABS Naja.ABS leave-early-3SG.PART
'Juuna explained to me that Naja left early.'

(39) Ippassaq Juuna-p eqqaa-vaatit **illit** [$_{CP}$ siorna tamatigut **ilin-nut**
yesterday Juuna-ERG mention-3SG>2SG 2SG.ABS last.year always 2SG-ALL
allat-tunga].
write-1SG.PART
'Yesterday Juuna mentioned that I always wrote to you last year.'

- The syntactic mechanism responsible for postposing the thematic object is also able to postpose a proleptic one

② Prolepsis is still possible when the matrix verb is antipassivized

- In Kalaallisut antipassives, the subject is absolutive and the object appears with modalis case

(40) **Anguti-mik utoqqa-mik** eqqaama-vunga.
man-MOD old-MOD remember-1SG
'I remember an old man.'

(41) **Meeqqa-nik** eqqaama-vunga [$_{CP}$ Juuna **taakku-nunnga** allat-toq].
child-MOD.PL remember-1SG Juuna.ABS 3PL-ALL.PL write-3SG.PART
'I remember that Juuna wrote to (the) children.'

- We leave open whether antipassives reflect an alternative object licensing strategy (as proposed for related language Inuktitut by Spreng (2006) and Yuan (2018)) or involve a change in argument structure
  - Regardless, that proleptic objects are accessible to this operation shows another structural parallel with thematic objects

③ With ditransitive matrix verbs (still embedding a CP), proleptic objects may occur in the same case frames available for thematic direct objects of monoclausal ditransitives

- There are two case frames for ditransitive constructions in Kalaallisut
  - Both thematic and proleptic objects may surface as absolutive in what we take to be a prepositional dative construction (allative IO; absolutive DO)

(42) Naja-p uanga qimmi-nnut **saanikoq** tunni-up-paa.
Naja-ERG 1SG.GEN dog-1SG>3SG.ALL bone.ABS give-APPL-3SG>3SG
'Naja gave a bone to my dog.'

(43) Naja-mut **Juuna** nassuiar-para [$_{CP}$ illit poortukka-t **taassu-munnga**
Naja-ALL Juuna.ABS explain-1SG>3SG 2SG.ERG package-PL.ABS 3SG-ALL
nassiuk-kitit].
send-2SG>3PL.PART
'I explained to Naja that you sent the packages to Juuna.'

- Both thematic and proleptic objects may surface as modalis in what we take to be a double object construction (absolutive IO; modalis DO)

(44) Uanga **atuakka-mik** tuni-vaannga.
1SG.ABS book-MOD give-3PL>1SG
'They gave me a book.'

(45) Naja **Juuna-mik** nassuiar-para [$_{CP}$ illit poortukka-t **taassu-munnga** nassiuk-kitit].
Naja.ABS Juuna-MOD explain-1SG>3SG 2SG.ABS package-PL.ABS 3SG-ALL send-2SG>3PL.PART
'I explained to Naja that you sent the packages to Juuna.'

- Proleptic and thematic objects are accessible to the same **positional, case, agreement, and transitivity alternations** in Kalaallisut
- This set of generalizations narrows the hypothesis space for subsequent work on prolepsis in the language

7 Conclusion

- We have argued that a pattern of apparent cross-clausal agreement in Kalaallisut is in fact local agreement with a proleptic object in the matrix clause
  - This allows us to maintain the otherwise strong generalization that only ergative and absolutive arguments may control agreement
- We have additionally highlighted some key structural properties of prolepsis in Kalaallisut
  - This contributes the first description, to our knowledge, of prolepsis in Inuit

References

Bittner, Maria. 2007. Qillarsuakkunik oqalualaaq (Qillarsuaq's Saga). In unpublished collection of Kalaallisut texts.

Bittner, Maria, and Ken Hale. 1996. The structural determination of case and agreement. *Linguistic Inquiry* 27:1–68.

Davies, William D. 2005. Madurese prolepsis and its implications for a typology of raising. *Language* 81:645–665.

Fortescue, Michael. 1984. *West Greenlandic*. London: Croom Helm.

Lohninger, Magdalena, Iva Kovac, and Susanne Wurmbrand. 2022. From prolepsis to hyperraising. *Philosophies* 7.

Mikkelsen, Line, and Ellen Thrane. to appear. Hyperraising in Kalaallisut. In *Proceedings of CLS 59*, ed. Akshay Aitha, Kutay Serova, and Madeline Snigaroff. Chicago, IL: Chicago Linguistics Society.

Ross, Haj. 1967. Constraints on variables in syntax. Doctoral Dissertation, Massachusetts Institute of Technology, Cambridge, MA.

Sadock, Jerrold M. 2003. *A grammar of Kalaallisut (West Greenlandic Inuttut)*. Munich: Lincom Europa.

Salzmann, Martin. 2017. Prolepsis. In *The Wiley-Blackwell companion to syntax, 2nd edition*, ed. Martin Everaert and Henk van Riemsdijk, 3203–3245. New York: Wiley-Blackwell.

Spreng, Bettina. 2006. Antipassive morphology and case assignment in Inuktitut. In *Ergativity: Emerging issues*, ed. Alana Johns, Diane Massam, and Juvenal Ndayiragije, 247–270. Dordrecht: Springer.

Yuan, Michelle. 2018. Dimensions of ergativity in Inuit: Theory and microvariation. Doctoral Dissertation, Massachusetts Institute of Technology, Cambridge, MA.