Syntactic ergativity without inversion in Kalaallisut

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1   Introduction

- An important manifestation of syntactic ergativity cross-linguistically is the impossibility of extracting a transitive subject (Ergative Extraction Constraint, henceforth EEC; Aissen 2017)

- The EEC famously holds in participial relative clauses in Kalaallisut (Inuit, Greenland; a.k.a. 'West Greenlandic'), as noted by Bittner and Hale (1996a,b)

  (1)   a.   Meeqqa-p akornuser-paanga.
             child-ERG disturb-3SG>1SG.IND
             The child disturbed me.

        b.   *Meeraq [___$_{erg}$ akornuser-aanga]   sinip-poq.
             child.ABS   disturb-3SG>1SG.PART sleep-3SG.IND
             Intended: 'The child that disturbed me is sleeping.'

- The standard analysis of the EEC involves syntactic inversion of the absolutive object over the ergative subject

  > The absolutive object A-moves above the ergative subject
  > Object movement over the subject blocks A' movement by the subject

  (2)   Yuan (2022: 511): inversion in Inuit
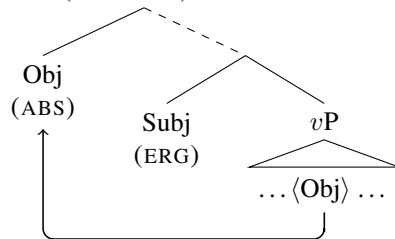
For Inuit: Bittner 1994, Bittner and Hale 1996a,b, Yuan 2018, 2022, a.o.

More broadly: Aldridge 2004 *et seq*, Coon et al. 2014, 2021, Assmann et al. 2015, Clemens and Tollan 2021, Royer 2022, Brodkin and Royer To appear, a.o.

- In this talk, we re-evaluate the case for inversion as an explanation for the EEC in Kalaallisut, providing evidence against inversion from:

  §2   Hyperraising of ergatives
  §3   Condition C
  §4   Word order
  §5   Morphological case patterns (evidence against case-motivated inversion, i.e. against ABS = NOM, in Legate's (2008) terms)

§6   Arguments for inversion in the previous literature are inconclusive

§7   Case-discrimination in A' probing offers a way forward, capturing the full range of syntactic, semantic, and morphological Kalaallisut data

- Unless otherwise cited, all data in this talk represents judgments of Ellen Thrane, elicited by Line Mikkelsen

2   Against inversion: hyperraising

- Mikkelsen and Thrane (To appear) show that Kalaallisut structures like (3) involve hyperraising to object: *illit* 'you' originates in the lower clause and A-moves into the matrix, where it agrees like an object of the matrix verb

  (3)   **Illit**   eqqaama-**vakkit**   [$_{CP}$ ___$_{abs}$ angerla-jaar-tutit].
        2SG.ABS remember-1SG> 2SG .IND [leave-early-2SG.PART]
        I remember that you left early.

- Notably, hyperraising can apply to ergatives (just as it can to intransitive subjects and transitive objects):

  (4)   **Meeqqa-t** eqqaama-vakka   [$_{CP}$ ___$_{erg}$ illit
        child-PL   remember-1SG> 3PL.IND [2SG.ABS
        ikior-aatsit   ]
        help-3PL>2SG.PART]
        'I remember that **the children** helped you.' (Mikkelsen & Thrane 2023)

  > On grounds of minimality, the possibility of A-movement of the ergative shows that the object does not always occupy the highest A-position

1

- Evidence for movement (rather than prolepsis)[1]

  A. Island sensitivity (e.g. CSC, left-branch island)

  (5)　* **Uanga** Naja-p　Hansi-l-lu　malugi-vaannga　$[_{CP}$
  　　　1SG　Naja-ERG Hansi-ERG-and notice-3PL>1SG.IND [
  　　　tamatigut [t Juuna-l-lu　] qimmi-t　nerukkar-ivut　　].
  　　　always　[t Juuna-ERG-and] dog-PL.ABS feed-1PL>3PL.PART].

  　　　Int: Naja and Hansi noticed that **me** and Juuna always feed the dogs.

  (6)　* **Illit** eqqaama-vakkit　　$[_{CP}$ ippassaq $[_{DP}$ t
  　　　2SG remember-1SG>2SG.IND [　yesterday　t
  　　　erner-pit　] meeqqa-t　ikior-ai　　].
  　　　son-2SG>3SG.ERG　child-PL.ABS help-3SG>3PL.PART]

  　　　I remember that **your son** helped the children yesterday.

  B. Locality/cyclicity: hyperraising may not skip a finite clause

  (7)　Agreement in every clause along the way: ✓
  　　　a.　✓ Naja you saw [they t noticed [t helped children]]

  　　　b.　Naja-p　taku-vaatit　　illit　　[*pro* t
  　　　　　Naja-ERG see-3SG> 2SG .IND 2SG.ABS [3PL t
  　　　　　malugi-gaatsit　　　[t meeqqa-t　ikior-itit　　　　]]
  　　　　　notice-3PL> 2SG .PART [t child-PL.ABS help- 2SG >3PL.PART]]

  　　　　　Naja saw that they noticed that you helped the children.

  (8)　Skipping middle clause: ✗
  　　　a.　✗ Naja you saw [they noticed [t helped children]]

  　　　b.　* Naja-p　*pro* taku-vaatit　　[*pro* malugi-gaat
  　　　　　Naja-ERG 2SG see-3SG> 2SG .IND [3PL notice-3PL>3SG.PART
  　　　　　[t meeqqa-t　ikior-itit.　　　　]]
  　　　　　[t child-PL.ABS help- 2SG >3PL.PART]]

  　　　　　Intended: Naja saw that they noticed that you helped the children.

C. Requirement of a gap, rather than an overt pronoun, in the lower clause

  (9)　**Illit**　eqqaama-vakkit　[* **illit**　/ ✓ $_{\_erg}$
  　　　2SG.ABS remember-1SG>2SG [2SG(ERG) /
  　　　ikior-itit　　　　].
  　　　help-2SG>3PL.PRT]

  　　　Intended: I remember that you helped them.

- Evidence that this is A-movement in particular:

  – It feeds case and agreement:
  　* The hyperraised nominal controls object agreement on the matrix verb
  　* Whatever its case downstairs, the hyperraised nominal shows absolutive in the upstairs clause (like other objects)

 – It applies only to DPs – e.g. adverbs cannot be hyperraised

  (10)　**Qangali**　nassuiar-sinnaa-vara　　　Naja　angerla-toq.
  　　　long-since explain-be.able-1SG>3SG.IND Naja.ABS leave-3SG.PART
  　　　Unavailable: I explained that Naja had long since left.

  – A' features don't matter – topics, foci, wh's can all be hyperraised (see Mikkelsen and Thrane To appear)

- Returning now to inversion: if the object must occupy an A-position higher than the subject in the Kalaallisut clause, hyperraising of an ergative is a minimality violation – a closer DP is ignored in favor of a more distant one

  (11)　**Meeqqa-t**　eqqaama-vakka　　$[_{CP}$ $\_\_{erg}$ illit
  　　　child-PL.ABS remember-1SG>3PL.IND [　　　2SG.ABS
  　　　ikior-aatsit　　　]
  　　　help-3PL>2SG.PART]

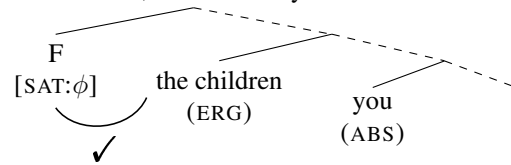 　　　'I remember that **the children** helped you.' (Mikkelsen & Thrane 2023)

  (12)　Minimality violation on the inversion theory
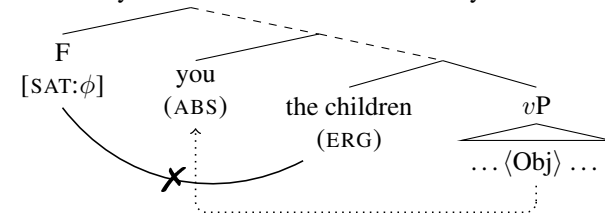
- By contrast, *without* inversion, it is structurally unsurprising that hyperraising can apply to ergatives:

  (13) No inversion, no minimality violation

  F
  [SAT:ϕ] the children
  (ERG)   you
           (ABS)
  ✔

- Hyperraising data suggest that Kalaallisut has *optional* A-scrambling of objects:

  – If no A-scrambling happens, the ergative is highest, and hyperraises, (11).

  – If object A-scrambling happens, the object is highest, and hyperraises:

  (14) [Juuna   Kaali-lu]   eqqaama-vakka   [__$_{abs}$ Naja-p
        [Juuna.ABS Kaali.ABS-and] remember-1SG>3SG.IND [Naja-ERG
        ikior-ai   ].
        help-HELP-3SG>3PL.PART]
        I remember that Naja helped Juuna and Kaali.

  (15)

  F
  [SAT:ϕ] you
           (ABS)
  ✔
           the children vP
           (ERG)
                    ...⟨Obj⟩...
   optional A-scrambling
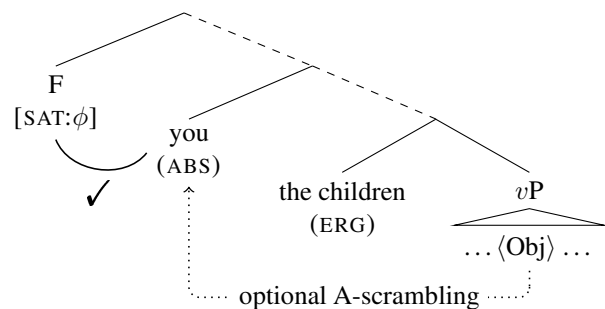
- Even granting that Kalaallisut does allow objects to A-scramble over subjects *sometimes*, the fact that Kalaallisut allows ergatives to *ever* occupy the highest A-position in the clause poses challenges for inversion as an account of the EEC.

  – The EEC is seen in Kalaallisut in participial relative clauses

  – It would be mysterious if inversion were obligatory in participial relative clauses, given that it is not obligatory as a general fact about Kalaallisut clause structure.
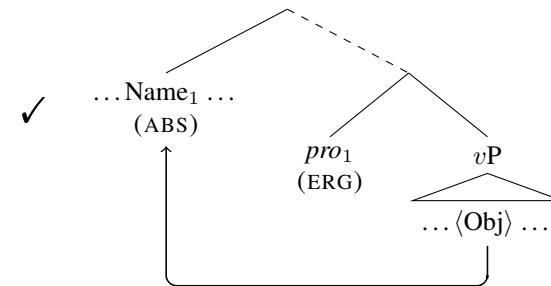
3 Against inversion: condition C

- Recent work by Royer (2022), Brodkin and Royer (To appear) has provided Condition C evidence in support of inversion in the syntactically ergative languages Chuj [Mayan] and Mandar [Austronesian]

  (16) Inversion feeds Condition C violations in the subject: the subject *cannot* contain an R-expression coreferential with object *pro*

  ✗ pro_1
        (ABS)
                ...Name$_1$... vP
                (ERG)
                             ...⟨Obj⟩...
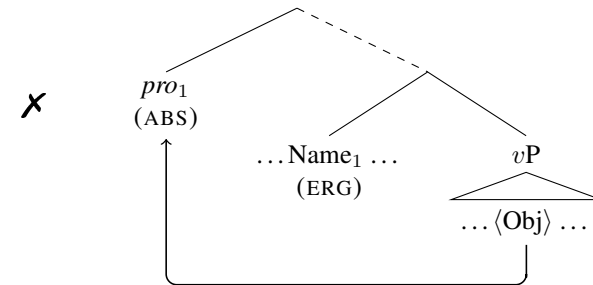
  (17) Inversion bleeds Condition C violations in the object: the object *can* contain an R-expression coreferential with subject *pro*

  ✔   ...Name$_1$...
        (ABS)
                pro_1 vP
                (ERG)
                      ...⟨Obj⟩...

- These patterns cannot be reproduced for Kalaallisut. Condition C behaves as in languages *without* inversion.

  – No pattern of inversion feeding a Condition C violation in the subject, contra (16) – evidence that inversion is not obligatory:

  (18) [Meeqqa-t Naja-mik   qani-si-sut   ] ikior-paat.
        [child-PL   Naja-INST take.home-AP-3PL.PART] help-3PL>3SG
        The children that took Naja$_i$ home helped her$_i$.

– No pattern of inversion bleeding a Condition C violation in the object, contra (17) – evidence that an inversion parse is not freely available (perhaps without visible OSV order):

(19) * Aqagu   [atuagaq   ippassaq Naja-p   pisiari-gaa   ]
        tomorrow [book.ABS yesterday Naja-ERG buy-3SG>3SG.PART]
        atua-ssu-vaa.
        read-FUT-3SG>3SG

        Intended: Tomorrow she$_i$ will read [the book Naja$_i$ bought yesterday].

- We take the contrast in Condition C data between our Kalaallisut data and the Chuj and Mandar data in Royer (2022), Brodkin and Royer (To appear) to show that not all languages with the EEC are alike in having inversion.

> Inversion is not the cause of the EEC in Kalaallisut.

4 Against inversion: word order

- The pragmatically unmarked word order of Kalaallisut is SOV (Fortescue 1984)

(20) Piniartu-p puisi   pisar-aa
        hunter-ERG seal.ABS catch-IND-3SG>3SG
        The hunter caught the seal. (Fortescue 1984: 181)

   – Kalaallisut does allow word order variation, including SVO and OVS versions of (20), given the right information structure.

- Word order has been taken as an argument against inversion in Inuit in some previous literature (Bok-Bennema 1991, Wharram 1996, Compton 2018)

- Standard syntactic assumptions suggest that an SOV language does not have inversion:

   – Word order variation reflects syntactic movement or prosodic reordering triggered by particular features (often information structural ones)

   – In the absence of such features, arguments are linearized according to their highest positions in the basic clause structure

   – LCA (Kayne 1994): If A linearly precedes B, A c-commands B

– Therefore, given that subjects precede objects in the unmarked word order, subjects c-command objects in the basic clause structure.

- By contrast, on an inversion view, the object is higher than the subject in the basic clause structure.

   – Proponents of an inversion view have appealed to PF processes (Bittner 1994: 3) or other factors (Yuan 2022: 517) to explain word order

   – Assuming inversion, special processes (PF or otherwise) are needed to derive *unmarked* word order (SOV), whereas *marked* word order (OSV) results if no special processes apply

- It is certainly not the case that syntax is irrelevant to word order in Kalaallisut (see e.g. Sadock 2003: 32)

- We conclude that basic word order patterns support the view that basic Kalaallisut clause structure lacks inversion.

5 Against case-motivated inversion: instances of tripartite case

- Inversion-based views of the EEC often connect to the idea that the object receives Case high, e.g. from T/Infl, in syntactically ergative languages (Bittner and Hale 1996a,b, Assmann et al. 2015, Coon et al. 2014, Clemens and Tollan 2021, i.a.)

   – ABS = NOM (Legate 2008b): intransitive subjects and transitive objects are both assigned nominative by T

   – It is in virtue of its need to receive Case from T that the object has to A-move past the subject

- Legate (2012) argues, based on Dyirbal, that not all syntactically ergative languages involve Case assignment of this type

   – While Dyirbal morphology is famously ergative-absolutive, this is actually only true for a class of non-pronominal DPs

   – Other nominals show a NOM/ACC split, or even a full overt three-way distinction ERG/ACC/NOM

   – Legate's conclusion: the syntax of Dyirbal is tripartite: objects and intransitive subjects do *not* receive the same syntactic Case. The fact that it sometimes looks that way results from **morphological syncretism**.

- The core of Legate's argument can be reproduced for Kalaallisut:

  - For singular non-pronominals, ergative is marked with suffix *-p*
  - Plural nouns and pronouns in Kalaallisut are unmarked (syncretism!)
  - The case forms of certain Kalaallisut quantifers and focus particles differ between intransitive subjects and transitive object (Fortescue 1984: 88)

(21)   Kalaallisut case patterns

	ERG (A)	NOM (S)	ACC (O)
singular DP (ex: Naja [name])	Najap	Naja	
plural DP (ex: meeqqat 'children')	meeqqat		
pronoun (ex: illit '2sg')	illit		
'only' (see (22))	kisimi		kisiat
'all' (see (23))	tamarmik		tamaasa

(22)   a.   Naja-p **kisimi/*kisiat** ikior-paanga
            N.-ERG only.NOM/*only.ACC help-3SG>1SG
            'Only Naja helped me.'

       b.   Naja **kisimi/*kisiat** angerla-jaar-poq
            N.ABS only.NOM/*only.ACC leave-early-3SG
            'Only Naja left early.'

       c.   Naja **kisiat/*kisimi** ikior-para
            N.ABS only.ACC/*only.NOM help-1SG>3SG
            'I helped only Naja.'

(23)   a.   Uninngasu-t **tamarmik** qannguip-put.
            patient-PL all.NOM snore-3PL
            'All the patients snored.'

       b.   Meeqqa-t **tamaasa/*tamarmik** taku-akka.
            child-PL all.ACC/all.NOM see-1S>3P
            'I saw all the children.'

- We conclude that *absolutive is a morphological case category in Kalaallisut, but NOT a syntactic one*

  - In Legate's terms: ABS=DEF(ault)
  - Kalaallisut morphological absolutive is **not** syntactic nominative (= a Case always assigned by T/Infl), but rather a syncretic morphological form that realizes both nominative Case and accusative Case

- In terms of inversion, the existence of a distinctive m-case for objects suggests that objects do not get Case 'high', in a way that would motivate inversion

  - If there is inversion in Kalaallisut, Case is not its motivation.
  - Adopting a non-inversion-based clause structure for Kalaallisut does not complicate the analysis of its case patterns

6   Revising previous arguments for inversion

- The conclusions above contrast with a sizable body of previous work on Kalaallisut and related Inuit languages that posits inversion:[2]

  - Murasugi (1992, 1997), Bittner (1994), Bittner and Hale (1996a,b), Manga (1996), Wharram (2003), Spreng (2006), Yuan (2018, 2022)

- Prominent in this literature are two arguments for inversion:

  1. Scope
  2. Affix order (see appendix A)

- We conclude that neither argument makes a compelling case in favor of inversion in light of modern frameworks.

- The argument for inversion from scope originates in Bittner's work in the late 80s (starting with Bittner 1987) and is cited by essentially everything arguing for inversion in Inuit: Murasugi (1992, 1997), Bittner (1994), Bittner and Hale (1996a,b), Manga (1996), Yuan (2018, 2022)

- Core data: absolutives can't scope below sentential operators, e.g. negation.
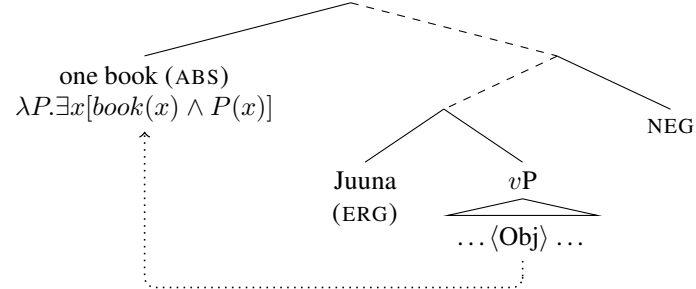
  (24)   Bittner (1994: 2)

         a.   Atuagaq ataasiq tikis-sima-nngi-la-q
              book   one   come-PRF-NEG-IND-3SG

              i.   ✓There is a book that has not come.
              ii. ✗It is not the case that a book has come.

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[2]There has been some work defending an inversion-less clause structure, though this has certainly been a minority view: Bok-Bennema (1991), Pittman (2006). There is also some work that posits inversion (object movement past the subject, or in the case of Johns (1992), base-generation of the object higher than the subject) plus re-inversion (subject movement past the high object position), incorporating both views. See e.g. Johns (1992), Bobaljik (1993), Wharram (1996).

b. Juuna-p   atuagaq ataasiq tigu-sima-nngi-laa
Juuna-ERG book   one   get-PRF-NEG-IND-3SG>3SG

  i. ✗It is not the case that Juuna has gotten a book.

  ii. ✓There is a book that Juuna has not gotten.

- A modern reconstruction of the argument from scope

  – All Kalaallisut absolutive descriptions have generalized quantifier semantics
  – They take scope strictly via movement and cannot reconstruct
  → Movement of absolutives above sentential operators is necessary and sufficient to capture their scope behavior.

(25) Structure of (24b), inversion theory

- Prediction: absolutive scope should respect scope islands

  – Scoping requires movement, either A-movement or QR
  – QR obeys scope islands, is finite-clause-bounded.

- Bittner (1994: 138) asserts that this is true, providing one example:

(26) Imaa-nngi-la-q   miiqqa-t ilaat   tammarsima-su-q
be.thus-NEG-IND-3SG child-PL part-3PL.SG get.lost-PRT-3SG
It is not the case that any of the children got lost. (Bittner 1994: 138)

- A more thorough investigation shows that the prediction is false. Absolutives can scope outside their clause and, generally, outside of scope islands

  – Scope out of a finite indicative complement: (27)
  – Scope out of a finite interrogative complement: (28)
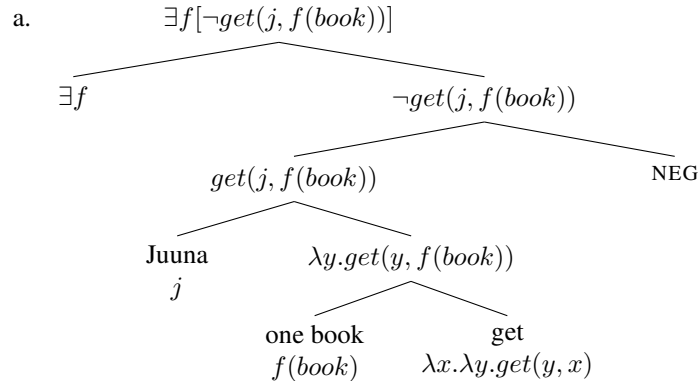 – Scope out of a conditional clause: (29)

(27) a. Naja-p   neriu-tsiga-a   [kalaaleq
Naja-ERG.SG hope-TVZ-3SG>3SG [Greenlander.ABS
ui-liuk-kiga   ].
husband-start.to.use-1SG>3SG.PART]
Naja hopes that I marry a Greenlander. (a particular one)

b. ∃x [*Greenlander(x) ∧ hopes(Naja)(I marry x)*]

(28) **Context:** There are three children on the playground. Each child is being helped by a different adult. For two of the children I remember who helped them, but I don't remember who helped the last one.

a. ✓Eqqaama-nngi-lara   [kia-p   meeraq
remember-NEG-1SG>3SG [who-ERG.SG child.ABS
ikior-aa   ].
help-3SG>3SG.PART]
I don't remember who helped a child.
Comment: "Here the other two are not part of it at all. It's just the one that you are concentrating on."

b. ∃x [*child(x) ∧ ¬remember(I)(who helped x)*]

(29) **Context:** There is a citizen meeting tomorrow. I don't know who is invited. There is a certain politican that I like so I will only be happy if she comes. I don't care about the other politicians.

a. ✓Politikeri   qaaqqup-passuk   nuannaa-ssu-unga.
politician.ABS invite-3PL>3SG.COND be.happy-FUT-1SG.IND
If they invite a politician, I'll be happy.

b. ∃x [*politician(x) ∧ [they invite x → I am happy*]]

> Conclusion: absolutives can take scope in a non-movement based way

– Wharram (2003), considering similar data: "the structural position of noun phrases in Inuktitut is irrelevant in determining their scopal properties."

> Accounting for the scope data without inversion

– Kalaallisut absolutive bare nominals & absolutive numeral phrases are generally choice-functional
(following Wharram 2003, Branigan and Wharram 2019 on Inuktitut)

– Kalaallisut permits existential closure of choice functions only at the edge of a clause (following Dawson 2020 on Tiwa)

(30) Juuna-p   atuagaq ataasiq tigu-sima-nngi-laa
      Juuna-ERG book   one   get-PRF-NEG-IND-3SG>3SG

    a. ✗It is not the case that Juuna has gotten a book.

    b. ✓There is a book that Juuna has not gotten.

(31) Deriving wide scope without movement: choice functions

    a. $\exists f[\neg get(j, f(book))]$

$$\exists f \qquad\qquad \neg get(j, f(book))$$

$$get(j, f(book)) \qquad\qquad \text{NEG}$$

$$\text{Juuna} \qquad \lambda y.get(y, f(book))$$
$$j$$

$$\text{one book} \qquad \text{get}$$
$$f(book) \qquad \lambda x.\lambda y.get(y, x)$$

    b. $[\![(30)]\!] = 1$ iff $\exists f[CH(f) \wedge \neg get(j, f(book))]$

    c. $\approx$ "There is a way of choosing books such that Juuna did not get the book so chosen."

- $\exists f$ is part of the clause periphery: low scope is absent for (30) because it would require the $\exists f$ to occur below negation.

- Wide scope out of a scope island: $\exists f$ in a higher clause

(32) a. Naja-p   neriu-tsiga-a   [kalaaleq
          Naja-ERG.SG hope-TVZ-3SG>3SG [Greenlander.ABS
          ui-liuk-kiga   ].
          husband-start.to.use-1SG>3SG.PART]
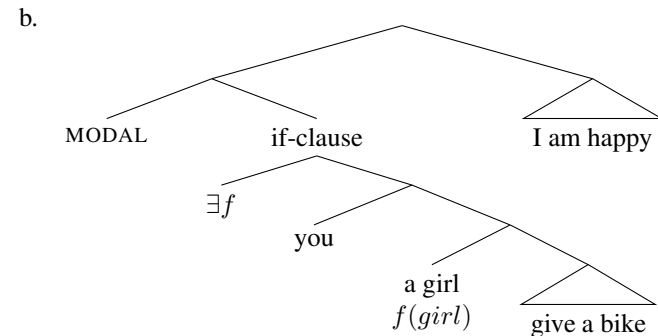   Naja hopes that I marry a Greenlander. (a particular one)

    b. $[\![(32a)]\!] = 1$ iff $\exists f[CH(f) \wedge \forall w' \in Hope(Naja, w) :$
          $marry(sp)(f(Greenlander))(w')$

    c. $\approx$ "There is a way of choosing Greenlanders such that in all worlds where Naja's hopes obtain, I marry the Greenlander so chosen."

d.

$$\exists f$$
$$\text{Naja}$$
$$\text{hope} \qquad \lambda w'.marry(sp)(f(Greenlander))(w')$$
$$\text{I}$$
$$\text{a Greenlander} \qquad \text{marry}$$
$$f(Greenlander)$$
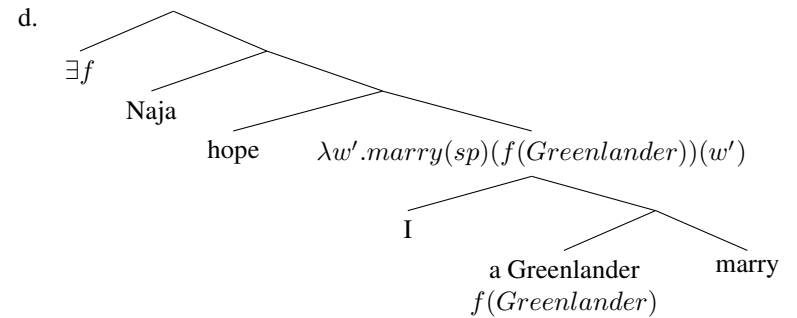
- Non-widest scope is also possible in multiclausal structures:

(33) **Context:** You and John have an old bicycle that you want to give to one of your 8 grandchildren (5 boys and 3 girls). I will be happy if you give it to a girl. It doesn't matter which girl.

    a. Nuannaari-ssu-ara   [sikkili-mik   niviarsiaraq
          be.happy-FUT-1SG>3SG.IND [bicycle-INST girl.ABS
          tunniu-ssiuk   ].
          give-2PL>3SG.COND]
          I will be happy if you give the bicycle to a girl.

    b.

$$\text{MODAL} \qquad \text{if-clause} \qquad \text{I am happy}$$
$$\exists f$$
$$\text{you}$$
$$\text{a girl}$$
$$f(girl) \qquad \text{give a bike}$$

- The **minimal** scope of a Kalaallisut absolutive is the top of its clause (as this is the lowest possible merge site of $\exists f$)

- Kalaallisut absolutives are not restricted to widest scope in the entire sentence (unlike Inuktitut; Branigan and Wharram 2019); $\exists f$ can occur on the edge of at least some embedded clauses

- The possibility of non-widest scope is also noted by Bittner 1994.

- Summary:
  - The argument for inversion from scope rests on the premise that Kalaallisut absolutives have the semantics of quantifiers
  - Our data show that scope in Kalaallisut has access to mechanisms (choice functions) that are not constrained by scope islands, connecting with modern work on 'exceptional wide scope' (Kratzer 1998, Matthewson 1999, Wharram 2003, Branigan and Wharram 2019, Dawson 2020, a.m.o.)
  - We conclude (with Wharram 2003 on Inuktitut) that the scope of indefinites in Kalaallisut provides no evidence in favor of inversion.

7 Consequences for the EEC

7.1 Summary

- We have reviewed five types of data potentially bearing on inversion:

  (34) Summary of diagnostics

Data set	Evidence against inversion?	Evidence for inversion?
§2: hyperraising	✓	-
§3: condition C	✓	-
§4: word order	✓	-
§5: case	✓ (case-motivated variant)	-
§6: scope	-	-

- We conclude that an approach to the EEC in Kalaallisut that does *not* appeal to inversion is required.

7.2 Case discrimination

- One such account is case discrimination, recently defended by Drummond (2023) for a different syntactically ergative language with no inversion, Nukuoro (Polynesian Outlier)
  - Previous case discrimination approaches to EEC phenomena: Otsuka (2006, 2010), Legate (2008a), Deal (2016, 2017)
  - Why we adopt this view and not a PP ergative or antilocality approach: appendix C

- Drummond (2023) takes an important step towards explaining the "how" of case discrimination: composite probing for an A' feature and a case feature (e.g. ABS)
  - Scott (2021): a composite probe for [A] and [B] is one that is conjunctively satisfied by those two features, [SAT:A+B]
  - (Notation: ^{M} for a probe that triggers movement, Deal To appear)

  (35) "Ordinary" relativization probe: [SAT:REL^M]

  (36) Absolutive-only relativization probe: [SAT:REL+ABS^M]

- The ordinary probe finds the closest relative operator, moves it, and halts Agree

- The abs-only probe in (36) can only move a relative operator when it finds the features [REL] and [ABS] on the same target
  - An absolutive relative operator is present: it is found and fronted, producing a RC
  - No absolutive relative operator is present: no RC is formed

- Within a language, some probes are case-discriminating and some are not—a matter of probe specification

  (37) A selection of probe specifications in Kalaallisut
  a. Hyperraising probe: [INT:D,SAT:D^M]
  b. Focus-fronting probe: [SAT:FOC^M]
  c. RC probe (preliminary): [SAT:REL+ABS^M]

- To adapt Drummond's proposal to the Kalaallisut data, we require a feature in common to absolutives — but recall our argument that intransitive subjects and transitive objects are separate abstract Case categories in the language (§5)

- Option 1:
  - On an inherent Case view of ergative, intransitive subjects and transitive objects have in common that their Case is structural rather than inherent (Legate 2012)
  - If structural Cases have a feature in common, it could be this feature that case discrimination targets:

  (38) RC probe (inherent erg theory): [SAT:REL+STRUC^M]

- Option 2:

  - The relevant feature is related to some Agree process in the clause: there is a head H that Agrees only with the object in a transitive, but with the subject in an intransitive

  - That head goal-flags the DPs it Agrees with, depositing s|H (Deal To appear)

  - The RC probe is sensitive to s|H:

(39) RC probe (goal flagging theory): [SAT:REL+S|H^M]

8 Conclusions

- While inversion accounts are widely adopted as an account of the EEC, both for Kalaallisut specifically and cross-linguistically, we have shown that these standard accounts face the following challenges:

  1. Accounting for the possibility of hyperraising an ergative

  2. Accounting for absence of Condition C effects fed/bled by inversion

  3. Accounting for the default SOV word order

  4. Accounting for differences in nominative vs. accusative morphological case in some parts of the paradigm

- Our conclusion regarding **clause structure** is that Kalaallisut lacks mandatory inversion: subjects generally occupy the highest A-position

- Regarding the **EEC**, the Kalaallisut data overall are not readily captured by any inversion view of which we are aware (nor by a PP ergative (Polinsky 2016) nor an antilocality (Erlewine 2016) theory – appendix C).

- A case-discrimination approach offers a way forward that is

  - Compatible with our conclusions regarding clause structure

  - Grounded theoretically in a general account of composite probing (Drummond 2023)

  - Flexible enough to account for why some movement processes show syntactic ergativity, whereas others don't, in the same language.

- Bigger picture: We agree that *some* languages with the EEC have inversion: evidence from Condition C (Royer 2022, Brodkin and Royer To appear)

- Together with this and other prior work (e.g. Ershova 2019), our conclusions point to a picture on which the EEC and inversion are *entirely independent of each other*

(40) Inversion and the EEC in morphologically ergative languages

	Inversion	No inversion
EEC	Chuj (Royer 2022) Mandar (Brodkin and Royer t.a.)	**Kalaallisut** Nukuoro (Drummond 2023)
No EEC	West Circassian (Ershova 2019)	Hindi (and many others)

  - EEC row: Case discrimination theories work equally well with and without inversion; our account can also apply to inverting languages

  - Non-EEC row: Inversion does not entail that A' probes case-discriminate! Our account allows for inversion *without* the EEC, e.g. in West Circassian

- On a case-discrimination theory, rather than a diagnostic for clause structure, the EEC is part of a broader pattern of case discriminating Agree that unites:

  - ergative and non-ergative languages

  - A' and non-A' phenomena

Appendix A: affix order

- In this appendix we discuss affix order in Kalaallisut as a potential argument in favor of inversion, following Murasugi (1992: §3.1) (who cites unpublished work by Bittner), Bittner (1994: 9), Manga (1996: 96).

  - Our take-away: this argument does not go through in light of modern theories of ϕ-Agree.

- Core claim in this literature: while transitive agreement in Kalaallisut is often an unparsable portmanteau, in some combinations, subject and object agreement can be parsed out. When this happens, subject inflection is inside of object inflection.

(41) Intransitive agreement paradigm, indicative mood

	SG	DU †	PL
1	-u-nga	-u-guk	-u-gut
2	-u-tit	-u-tik	-u-si
3	-u-q	-u-k	-u-t

(42) Partial transitive agreement paradigms, indicative mood

a. 3rd person plural subject

	SG	DU†	PL
1OBJ	-a-n-nga	-a-ti-guk	-a-ti-gut
2OBJ	-a-ts-it	-a-tik	-a-si
3OBJ	-a-t	-a-gi-k	-a-a-t

b. 2nd person plural subject

	SG	DU †	PL
1OBJ	-a-ssi-nga	-a-vti-guk	-a-ssi-gut

- The argument from here:

  - Mirror principle: subject agreement is inside of object agreement

  - *Agreement requires a spec-head relation*

 → The object must move to the spec of a head above the subject (= inversion)

(43)
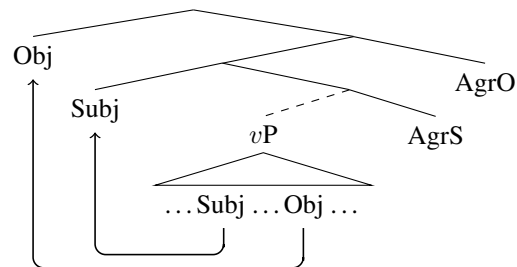
- This argument rests on the assumption that agreement is always Spec-head.

- Given a theory of agreement where Agree holds under c-command, it is perfectly possible to *accept* the mirror principle argument regarding agreement projections (as Yuan 2018, 2022 does) but to *reject* the further claim that the object moves above the subject.

(44)
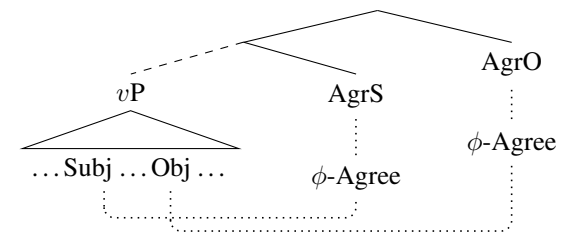
  - Minimality questions arise here regardless of whether there is movement

  - On a pure Agree view, two possibilities are that the ϕ-probe on the higher head skips the subject due to activity (Yuan 2018) or else does Agree with the subject and then proceeds to also Agree with the object (Spreng 2006)

> Conclusion: affix order provides no evidence in favor of inversion, assuming the core claim above is true.

- *However,* we also note that core claim is controversial: there are some parts of the paradigm with the opposite order of subject and object markers (Oei 2005, Compton 2018)

- As Oei notes, in SAP>3rd paradigms across Inuit varieties, what varies with object features is the *inner* part of the suffix.

(45) Partial transitive agreement paradigms, indicative mood

a. 1st person plural subject

	SG	DU†	PL
3	-a-rp-ut	-a-gp-ut	-a-v-ut

b. 1st person dual† subject

	SG	DU †	PL
3	-a-rp-uk	-a-gp-uk	-a-v-uk

- A much closer study of the morphosyntax of Kalaallisut agreement is required to ascertain why agreement suffixes look as they do.

Appendix B: NPIs

- In section 6, we discuss the scope of absolutives and the claim (e.g. by Bittner (1994)) that an account thereof requires inversion.

- A modern reconstruction of the argument from scope (repeated)

  - All Kalaallisut absolutive descriptions have generalized quantifier semantics
  - They take scope strictly via movement and cannot reconstruct
  - → Movement of absolutives above sentential operators is necessary and sufficient to capture their scope behavior.

- This approach predicts that NPIs should be impossible in absolutive position.

  - In order for movement to derive *obligatory* scope over negation in (24b), reconstruction of the object to a position under negation must be impossible.
  - No syntactic reconstruction: can't ignore the higher copy
  - No semantic reconstruction: can't leave a high-typed trace

- The falsity of this prediction was noted by Bittner (1994: 142). NPIs can occur in absolutive position with no problem.

(46)   [inuu-p   ataatsi-l=luunniit] [tillittuq ataasir=luunniit]
       [person-ERG one-ERG=any   ] [thief   one=any   ]
       taku-nngi-la-a
       see-NEG-IND-3SG>3SG
       Nobody saw any thief. (Bittner 1994: 142)

- We are not aware of any compelling explanation in the scope theory for why NPIs should be able to scope under negation when other absolutives can't.

  - According to Bittner (1994: 142), NPI absolutives can be base-generated in a special structure that permits reconstruction.

    Bittner does not explain why this structure isn't available for regular (non-NPI) absolutives

  - Making regular absolutives PPIs doesn't help: they must scope over other operators, too, e.g. 'again'

- Our alternative, non-inversion-based approach to absolutive scope accounts for NPIs straightforwardly.

  - Chierchia (2006): NPIs are existential GQs that trigger domain widening (via activation of alternatives) — true quantifiers! *not* choice functional.
  - The NPI data shows us that true quantifiers can indeed scope under negation in Kalaallisut (whether via QR to a low position, or in-situ interpretation)

(47)   a. atuagaq ataasir=luunniit tiki-sima-nngi-la-q
          book   one=any   come-PERF-NEG-IND-3SG
   No book has come. (Bittner 1994: 142)

       b.
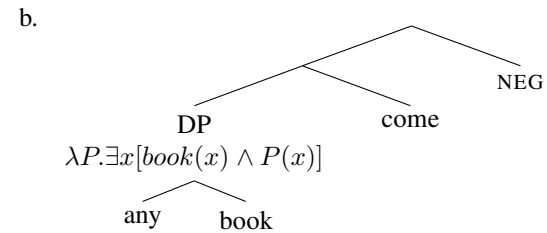
  - Reconstruction plays no role in this story – *all* Kalaallisut nominals can be interpreted in the scope of negation
  - The apparent quantificational force of a nominal can nevertheless be above negation *if* that nominal is choice-functional.

Appendix C: Other approaches to the EEC

Inversion views ruled out

- There are various accounts of the EEC that assume inversion, differing in exactly how it is that the high object position blocks subject Ā movement

(48)
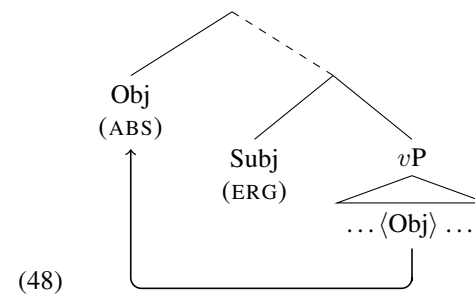
- – Positional competition: the high object position is one that the subject would need to move through or to in order to extract. The presence of the object there blocks extraction.

  (Bittner and Hale 1996a,b, Assmann et al. 2015, Coon et al. 2014)

- – Crossing paths: Subject extraction is ruled out due to a constraint ruling out crossing dependencies (Campana 1992, Tollan and Clemens 2022)

- – "A-bar probing for the closest DP"[3]: the probe is configured such that it must stop when it encounters any DP, and it finds the object first (Aldridge 2004, Coon et al. 2021)

- Without inversion:

  - – There is no position above the subject that the object is forced to occupy

  - – There is no object dependency that must land between the subject's low position and the A' position to which it moves

  - – The object is not a structural intervener for A' probes that target the subject

- Given the evidence against inversion in Kalaallisut, we conclude that none of these accounts explains the EEC in this language.

Against a PP-ergative approach

- We also note challenges in Kalaallisut for a PP ergative approach (Polinsky 2016): syntactic ergativity results when the ergative argument is encased in a PP, the P of which can be neither pied-piped nor stranded.

- Prediction (Polinsky 2016): PP ergatives cannot participate in raising.

- Problem: Ergatives can raise in Kalaallisut, as we saw in data like (49):

  (49) **Meeqqa-t** eqqaama-vakka $[_{CP}$ ___$_{erg}$ illit
  child-PL.ABS remember-1SG>3PL.IND [2SG.ABS
  ikior-aatsit]
  help-3PL>2SG.PART]
  'I remember that **the children** helped you.' (Mikkelsen & Thrane 2023)

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[3]This description comes from Branan and Erlewine (2022), who apply this type of analysis to non-ergative languages.

- PP ergatives are also predicted to be unable to bind Condition A sensitive items, which also seems like a challenging claim to maintain for Kalaallisut (in view of reflexive possessives).

- We conclude that Kalaallisut ergatives are not PPs.

Against an antilocality approach

- An antilocality approach to the EEC in Mayan is proposed by Erlewine (2016): syntactic ergativity results when the transitive subject position is one from which movement into the CP domain is "too short"

- For instance (Erlewine 2016):

  - – Transitive subjects occupy Spec,TP

  - – Movement to Spec,CP is impossible from this position because there is no maximal projection in between

  - – Adding additional structure between T and C obviates the EEC

- Problem: in Kalaallisut, adding additional structure between T and C, e.g. negation, does not obviate the EEC. (On this position for Neg: Compton 2018)

  (50) * Meeqqa-t [___$_{erg}$ ikiu-nngik-kaannga] qiap-put.
  child-PL help-NEG-3PL>1SG.PART cry-3PL.IND
  Intended: 'The children who didn't help me are crying.'

- Given the assumption that agreement is in the C domain (Compton 2018, Yuan 2018, 2022), another possibility is that the transitive subject always moves to a low head in C domain, and antilocality prevents movement from there to the A' head

  - – Challenge 1: making sure that intransitive subjects aren't also prevented from moving, given that they too control agreement in the C-domain and are the highest DPs in their clauses

  - – Challenge 2: no evidence of antilocality obviation via merger of additional material

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