

Case Discrimination in Caseless Languages

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Today we focus on *case discrimination* (Bobaljik 2008; Preminger 2014; Deal 2016)—the observation that in some languages, certain case-marked DPs are inaccessible for agreement

- ...specifically, its relevance in ergative alignment systems, both for agreement and for syntactic ergativity
- Hindi-Urdu provides a useful example: in Hindi, ergative-marked subjects are never targeted for agreement: only *absolutives* agree¹

- (1) a. Raam-**ne** roTii khaayii thii.
 Raam(MASC)-ERG bread(FEM) eat.PERF.FEM be.PAST.FEM
 ‘Raam had eaten bread.’
- b. Raam baazaar gayaa.
 Raam(MASC) market go.PAST.MASC.SG
 ‘Raam went to the market.’ (Hindi; Mahajan 1990)
-

- The fact that transitive subjects *do* agree when they are unmarked (i.e. in certain aspects), leads to the generalization that in Hindi, agreement targets the structurally highest unmarked argument:

- (2) Raam roTii khaataa
 Raam(MASC) bread(FEM) eat.IPFV.MASC
 ‘Raam used to eat bread.’ (Hindi; Mahajan 1990)
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*This handout is from a talk I gave at Stanford—thanks to the audience there for helpful feedback. Versions of this are published as Coon 2017b and Coon and Parker 2019.

¹Non-standard abbreviations in glosses are as follows: I, II, III – Series I, II, and III person marking (Tsimshianic); AA – anti-agreement; AF – Agent Focus; CLF – nominal classifier; CN – connective (~ determiner); CS – construct state; DIR – directional; PN – proper noun connective; SX – subject extraction; TV – transitive verb; WH – *wh*-agreement.

- The fact that certain case-marked DPs may be inaccessible for agreement operations has been utilized in explanations of two phenomena in the study of ergativity:

1. **Bobaljik 2008: a typological gap** — while some languages have an ergative-absolutive case system and nominative-accusative agreement, the reverse is unattested (Anderson 1976; Dixon 1979)
2. **Deal 2016: syntactic ergativity** — in some morphologically ergative languages, ergative DPs are inaccessible for A'-extraction (Polinsky 2017)

- The above accounts are appealing and appear to account nicely for the facts in ergative languages with *overt morphological case*
- ➔ Yet the generalizations they aim to account for are present in both *dependent-marking* (i.e. case-based) and *head-marking* (i.e. agreement-based) ergative alignment systems
 - This has led some to say that ergative agreement in caseless languages is not “truly ergative” (Woolford 2000, 2010)
 - Or that the phenomenon in question is only illusory in head-marking languages (Deal 2016)
- **Proposal:** Case assignment is at the root of the generalizations above, even in ergative languages which lack overt morphological case
 - Ergative agreement in Mayan and Tsimshianic languages is the result of *inherent agreement*, and that this agreement is parasitic on *inherent case assignment*
 - Contra recent proposals which aim to reduce all case assignment to configurational or *dependent case* (Baker and Bobaljik 2017), I argue that not only is inherent ergative possible in some languages, but that it is in fact predicted by the system

Roadmap

- – §1 Case discrimination and case assignment
- – §2 Deriving the typological gap
- – §3 Syntactic ergativity

1 Case discrimination and case assignment

1.1 Case discrimination

Moravcsik (1974) showed that there is an implicational hierarchy governing which types of arguments are *accessible for agreement*:

- (3) MORAVCSIK HIERARCHY
Subject \gg Direct Object \gg Indirect Object \gg Adverbs

As discussed in Bobaljik 2008 and Preminger 2014, there are at least two types of data not directly captured by the formulation in (3). . .

1. Languages with dative/“quirky” subjects — dative subjects do not agree in Icelandic:

- (4) ICELANDIC
- a. Morgum studentum líki verkið.
many student.PL.DAT like.3SG the.job.NOM
'Many students like the job.' (Harley 1995)

- b. Við lásum bókina
we.NOM read.1PL the.book.ACC
'We read the book.' (Sigurðsson 1996)

2. Ergative languages — ergative subjects do not agree in Hindi-Urdu

- (5) a. Raam-ne roTii khaayii thii.
Raam(M)-ERG bread(F) eat.PERF.FEM be.PAST.FEM
'Raam had eaten bread.'
- b. Raam baazaar gayaa.
Raam(M) market go.PAST.MASC.SG
'Raam went to the market.' (Hindi; Mahajan 1990)

► Bobaljik (2008): what is important for determining agreement is not grammatical function (i.e. subject vs. object), but rather, *morphological case*

- (6) CASE ACCESSIBILITY HIERARCHY (Bobaljik 2008, 303)

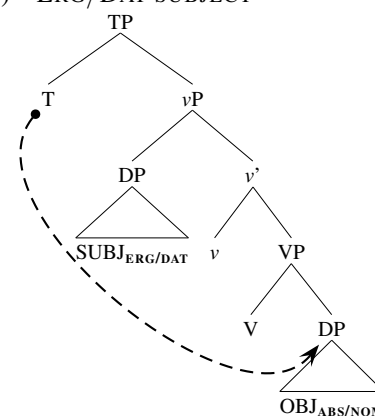
Unmarked Case	Dependent Case	Lex./Obl. Case
nominative	accusative	dative
absolutive	ergative	dative

- Accusative/ergative grouped together as cases which are only assigned in transitive clauses—in the presence of another DP

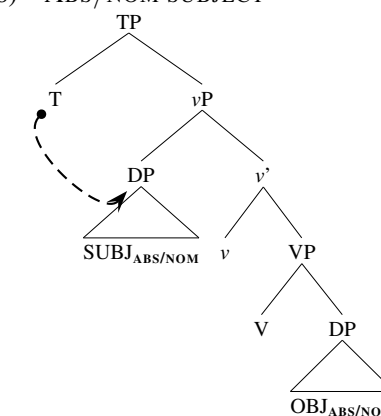
⇨ = **dependent** cases

- Agreement in Hindi/Icelandic:

- (7) ERG/DAT SUBJECT



- (8) ABS/NOM SUBJECT



1.2 Case assignment

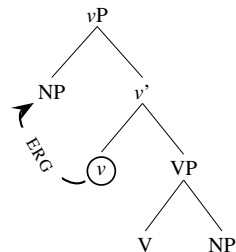
- What we know from Moravcsik/Bobaljik: *agreement cares about morphological case*
- But big questions remain:
 - How is case assigned?
 - Does case assignment happen in the syntax? and does it reflect a deeper syntactic mechanism, present even in languages without morphological case?
 - What is the connection between case and *licensing*?

How (with a focus on *ergative* case): Two main options are currently debated for the assignment of ergative case:

1. Ergative is an *inherent* case, assigned to the external argument in its merged position (9); (Woolford 1997, 2006; Aldridge 2004; Legate 2008)

⇒ Ergative is assigned by a functional head to its specifier, on par with dative assignment by Appl⁰

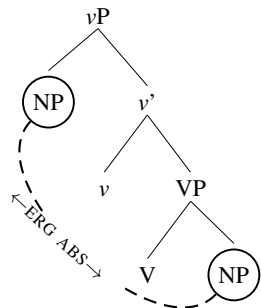
(9) INHERENT ERGATIVE



2. Ergative is a *dependent* case, assigned to the higher of two DPs in some specified domain (10) (Marantz 1991; McFadden 2004; Levin and Preminger 2015; Baker and Bobaljik 2017)

⇒ Ergative is assigned based on its configuration in opposition to an eligible *case competitor* (e.g. an unmarked DP)

(10) DEPENDENT ERGATIVE



(11) CASE REALIZATION DISJUNCTIVE HIERARCHY

- (a) lexically governed/quirky case
- (b) dependent case (ERG/ACC)
- (c) unmarked case (ABS/NOM)

(12) ICELANDIC

- a. Morgum studentum líki verkið.
many student.PL.DAT like.3SG the.job.NOM
'Many students like the job.'

- 1. _____
- 2. _____

- b. Við lásu bókina
we.NOM read.1PL the.book.ACC
'We read the book.'

- 1. _____
- 2. _____

1.3 Caseless languages

What about the question of *where/when* case is assigned?

- *Inherent* case assignment as in (9) is (necessarily) syntactic
- Marantz (1991); McFadden (2004) and Bobaljik (2008): configurational case is calculated *post-syntactically*
 - Some more recent work has relocated even dependent case back in the syntax (Baker and Vinokurova 2010; Preminger 2014; Levin and Preminger 2015)
 - Proponents of both inherent and dependent ergative case locate case assignment in the syntax—but what about languages with no overt morphological case?
- Languages of the Mayan and Tsimshianic families are predicate-initial head-marking languages in which *transitive subjects* trigger ergative agreement on the predicate (aka “Set A” in Mayan/“Series II” in Tsimshianic; here we focus on *independent* clauses)
 - In Ch’ol, as in other Mayan languages, absolutes (aka “Set B”) are clitics (Grinevald and Peake 2012; Coon 2016)
 - In Tsimshianic, absolutes (aka “Series III”) are free-standing pronouns (Forbes 2016, and references there)

- (13) CH'OL (MAYAN)
- a. Tyi **k**-chuk-u-y=ety.
PFV 1ERG-carry-TV-EP=2ABS
'I carried you.'
- b. Tyi jul-i-y=ety.
PFV arrive-IV-EP=2ABS
'You arrived.'

- (14) GITKSAN (TSIMSHIANIC)
- a. gya'-a-'y 'nit
see-TV-1SG.II(ERG) 3SG.III(ABS)
'I saw him/her.'
- b. yee 'nit
walk 3SG.III(ABS)
'S/he walked.'

(Davis 2016)

- Overt NPs are not marked for case (see Davis 2016 for Gitksan):

- (15) CH'OL
- a. Tyi **i**-chuk-u ñeñe' x'ixik.
PFV 3ERG-carry-TV baby woman
'The woman carried the baby.'
- b. Tyi jul-i x'ixik.
PFV arrive-IV woman
'The woman arrived.'

- (16) GITKSAN
- a. gya'-a[-t]=hl hanak'=hl gyat
see-TV[-3.II(ERG)]=CN woman=CN man
'The woman saw the man.'
- b. **bax**=hl hanak'
run=CN woman
'The woman ran.'

(Davis 2016, 10)

- A similar pattern of agreeing ergatives and absolutive clitics is found in the Austronesian language Selayarese, not discussed in detail here; see [Finer 1994, 1999](#), discussed in [Woolford 2000](#):

- (17) SELAYARESE (AUSTRONESIAN)
- a. **la**-keo'=ko i Baso'.
3ERG-call=2ABS DET Baso
'Baso called you.'
- b. ak-kelong=ko
INT-sing=2ABS
'You sang.'

(Finer 1994, 158)

- Languages like Ch'ol, Gitksan, and Selayarese raise problems for standard accounts of ergative agreement, and in particular, for the question of how a certain typological gap is accounted for. . .

2 Deriving the typological gap

(18)

	AGREEMENT	nominative-accusative	ergative-absolutive
CASE			
nominative-accusative		English, Tamil	<i>unattested</i>
ergative-absolutive		Nepali, Walpiri	Hindi, Kabardian

- When case and agreement diverge, we find languages with ergative-absolutive case and nominative-accusative agreement, but never the reverse ([Anderson 1976](#); [Dixon 1979](#))
- The attested mismatch pattern can be seen in Nepali:

- Nepali shows ergative case marking on some transitive subjects
- Both ergative and absolutive NPs are accessible for agreement

- (19) a. **maile** yas pasal-mā patrikā kin-ē.
1SG.ERG DEM store-LOC newspaper.ABS buy-1SG
'I bought the newspaper in this store.'
- b. **ma** thag-ī-ē.
1SG.ABS cheat-PASS-1SG
'I was cheated.'

(Nepali; [Bickel and Yādava 2000](#), 348)

- Compare with Hindi, repeated from (5) above; ergatives are inaccessible for agreement:

(20) a. Raam-**ne** roTii khaayii thii.
 Raam(M)-ERG bread(F) eat.PERF.F be.PAST.F
 ‘Raam had eaten bread.’

b. Raam baazaar gayaa.
 Raam(M) market go.PAST.M.SG
 ‘Raam went to the market.’ (Hindi; Mahajan 1990)

- ERG CASE/NOM AGREE: ergatives are marked for case and are *accessible* to agreement; “nominatives” (i.e. all subjects) agree

(24) ✓ [IP Infl⁰ [vP Subj-ERG v⁰ [vP V Obj]]]
 nom

- NOM CASE/ERG AGREE: ✗
 – (if subjects are unmarked for case, there will be nothing to block the agreement from T/Infl)

(25) * [IP Infl⁰ [vP Subj v⁰ [vP V Obj]]]
 absolutive (=nominative)

2.1 Bobaljik 2008

- Recall that the Case Accessibility Hierarchy from (6) above, is an *implicational hierarchy*—languages like Nepali are predicted:

(21)

	Hindi		Nepali	
	↓		↓	
Unmarked	»	Dependent	»	Lex./Obl. Case
nominative		accusative		dative
absolutive		ergative		dative

- We run into trouble when we consider languages like Ch’ol and Gitksan with **no case morphology**, and in which **ergatives agree**—with no case, how do we derive an ergative agreement pattern?

(26)

	AGREEMENT	nom-acc	erg-abs
CASE			
nominative-accusative		English, Tamil	<i>unattested</i>
ergative-absolutive		Nepali, Walpiri	Hindi, Kabardian
unmarked		Swahili, Huichol	Ch’ol, Gitksan

- If all agreement originates in T/Infl—a tacit assumption in Bobaljik 2008—we correctly predict the gap:

- NOM CASE/NOM AGREE: nominative subjects are unmarked and *accessible* to agreement; nominatives agree

(22) ✓ [IP Infl⁰ [vP Subj v⁰ [vP V Obj]]]
 nom

- ERG CASE/ERG AGREE: ergative subjects are marked for case and are *inaccessible* to agreement; only absolutes agree

(23) ✓ [IP Infl⁰ [vP Subj-ERG v⁰ [vP V Obj]]]
 absolutive (=nominative)

2.2 The puzzle: Two types of ergative agreement

- Actually, the problem is more serious than this; both Hindi and Ch’ol can be described as having an “ergative-absolutive” system of agreement, but this misses an important difference. . .

- In Hindi, it’s the absolutes that agree:

(27) a. Raam-**ne** roTii khaayii thii.
 Raam(M)-ERG bread(F) eat.PERF.F be.PAST.F
 ‘Raam had eaten bread.’

b. Raam baazaar gayaa.
 Raam(M) market go.PAST.M.SG
 ‘Raam went to the market.’ (Hindi; Mahajan 1990)

- In Ch’ol and Gitksan, it’s the ergatives:

- (28) CH'OL $\xrightarrow{\text{agree}}$
- a. Tyi i-chuk-u ñeñe' x'ixik.
PFV 3ERG-carry-TV baby woman
'The woman carried the baby.'
 - b. Tyi jul-i x'ixik.
PFV arrive-IV woman
'The woman arrived.'

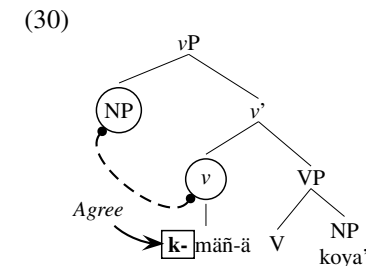
► And yet in neither type of language do we find nominative-accusative case (see also Woolford 2000)

- Woolford (2000): languages like Ch'ol do not have true ergative agreement—for Woolford, ergative agreement alignment can only arise in the presence of overt morphological case (as in Hindi)
 - For a similar pattern in Popti' (Jakaltek) Mayan, Woolford proposes that the apparent ergative agreement originates in Infl^0 (=nominative); see also Erlewine 2016 on Kaqchikel
 - Woolford and Erlewine have different proposals about how to achieve the absence of ergative in intransitive clauses

2.3 Inherent agreement

- In Coon 2017a I argue based on its availability in non-finite embedded clauses, as well as morphophonological templatic effects, that ergative agreement must originate low in Ch'ol—it cannot be the result of agreement from finite Infl^0/T^0
 - See also Wiltschko 2006 on Halkomelem (Salish), Forbes 2016 on Gitksan, and Henderson and Coon 2018 on Kaqchikel for evidence that ergative agreement originates from a *low probe*
- Specifically, ergative agreement in Ch'ol is the spell-out of a feature-checking relationship between the head that introduces the external argument (v^0 , Voice⁰, simplified here), and the in-situ external argument:

- (29) Tyi **k**-mäñ-ä koya'.
ASP 1ERG-buy-TV tomato
'I bought tomatoes.'



Two types of “ergative agreement”:

- (31) HINDI-TYPE
 $[_{IP} \text{Infl}^0 [_{vP} \text{Subj-ERG } v^0 [_{VP} V \text{Obj}]]]$ *absolutives agree*
 (Arrow from Infl^0 to v^0 labeled *absolutive (=nominative)*)
- (32) CH'OL-TYPE
 $[_{IP} \text{Infl}^0 [_{vP} \text{Subj } [_{v'} v^0 [_{VP} V \text{Obj}]]]]$ *ergatives agree*
 (Arrow from v^0 to v^0 labeled *ergative*)

The puzzle: Neither system co-occurs with nominative-accusative case

- For Hindi-type languages, we know how to rule this out
- How do we rule out accusative case and ergative agreement?

(33)

	AGREEMENT	
CASE	nom-acc	erg-abs
nominative-accusative	English, Tamil	<i>unattested</i>
ergative-absolutive	Nepali, Walpiri	Hindi, Kabardian
unmarked	Swahili, Huichol	Ch'ol, Gitksan

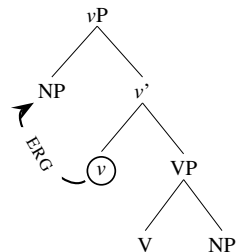
A solution:

- “Ergative agreement” (i.e. both types of patterns above) must be parasitic on some type of ergative case assignment
 - In Hindi, overt ergative case blocks agreement from a higher probe; absolutives agree—this could be handled with *either* dependent or inherent case
 - In Ch'ol, ergative agreement is parasitic on *inherent ergative case assignment*—the same probe that assigns case is also the one responsible for agreement

- Ergative agreement in Mayan, Tsimshianic, and Salishan languages is *inherent agreement* (see also J. Baker 2016):

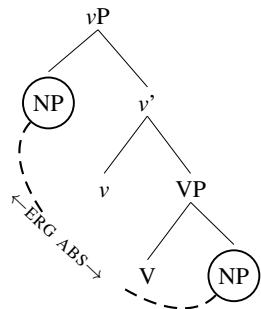
- Ergative subjects are licensed (assigned abstract case) in their base position, as in (34)
- This case assignment puts the head and specifier in a feature-checking relationship, which—in these languages—is spelled out as ϕ -agreement

(34) INHERENT ERGATIVE CASE \rightarrow INHERENT AGREEMENT



- Crucially, this won't work if ergative is *always* a dependent case, assigned configurationally to the higher of two heads in a certain domain (Marantz 1991; Baker and Bobaljik 2017)

(35) DEPENDENT ERGATIVE



- Problems for dependent case with Ch'ol-type ergative agreement:**
 - The grammar must keep track of two types of morphologically null case: dependent and unmarked
 - The agreeing probe agrees only with the *marked* case (=ergative), in direct conflict with the Moravcsik/Bobaljik Case Accessibility Hierarchy

➡ **Conclusion:** Inherent ergative case assignment must be an option allowed by the grammar (contra Baker and Bobaljik 2017)

2.4 Interim summary

	AGREEMENT	
CASE	nom-acc	erg-abs
(36) nominative-accusative	English, Tamil	① <i>unattested</i>
ergative-absolutive	Nepali, Walpiri	② Hindi, Kabardian
unmarked	Swahili, Huichol	③ Ch'ol, Gitksan

We're interested in the realization of *ergative* agreement patterns:

- X:** The unattested cell tells us that ergative agreement should be dependent on ergative case assignment—independently corroborated by work confirming that agreement is sensitive to case
- Hindi:** agreement from a *high probe* cannot agree with the ergative-marked subject; absolutes agree

(37) HINDI-TYPE
 $[_{IP} \text{Infl}^0 [_{VP} \text{Subj-ERG } v^0 [_{VP} \text{V Obj}]]]$ *absolutes agree*
 absolute (=nominative) \uparrow

- compatible with either inherent or dependent approaches to ergative assignment—all that matters is that morphological case is there

- Ch'ol:** ergative agreement is the result of a local spec-head relationship, dependent on inherent ergative case assignment

(38) CH'OL-TYPE
 $[_{IP} \text{Infl}^0 [_{VP} \text{Subj } [_{v'} v^0 [_{VP} \text{V Obj}]]]]$ *ergatives agree*
 ergative \uparrow

- only compatible with *inherent* ergative case assignment

➡ Configurational accounts of case assignment independently need inherent case—there is nothing incompatible with having ergative assigned as a dependent case in some languages (39-2.), and as an inherent case in others (39-1.)

- ...really, we would require a special stipulation to rule out the possibility of inherent ergative assignment

(39) CASE REALIZATION DISJUNCTIVE HIERARCHY

1. lexically governed/quirky case
 - assigned by particular lexical items (DAT/OBL)
 - assigned by particular *heads* (ERG/DAT)
2. dependent case (ERG/ACC)
3. unmarked case (ABS/NOM)

► In order to derive the gap, agreement must be dependent on case assignment, whether it is morphologically realized or not

- **In the next section:** we need abstract case assignment to understand patterns of syntactic ergativity

3 Syntactic ergativity

Mayan and Tsimshianic languages share something else in common: *syntactic ergativity*...

- In many—but not all—ergative languages, ergative arguments are inaccessible to A'-extraction (wh-questions, focus, relativization); see [Polinsky 2017](#); [Deal 2016](#) for recent surveys

- In West Greenlandic, absolutive arguments may be relativized:

(40) WEST GREENLANDIC

- a. miiqqa-t [___(ABS) sila-mi pinnguar-tu-t]
 child-PL.ABS outdoors-LOC play-REL.IV-PL
 'the children who are playing outdoors'
- b. miiqqa-t [Juuna-p ___(ABS) paari-sa-i]
 child-PL.ABS Juuna-ERG look.after-REL.TV-3SG.PL
 'the children that Juuna is looking after' (Bittner 1994)

- Ergative arguments may not:

- (41) * angut [___(ERG) aallaat tigu-sima-sa-a]
 man.ABS gun.ABS take-PFV-REL.TV-3SG.SG
 intended: 'the man who took the gun' (Bittner 1994, 58)

- In order to express this meaning, the antipassive is used:

- (42) angut [___(ABS) aalaam-mik tigu-si-sima-su-q]
 man.ABS gun-INS take-AP-PFV-REL.IV-SG
 'the man who took the gun' (Bittner 1994, 58)

- Discussed in more detail in [Deal 2016](#), parallel restrictions are found in a diverse group of genetically unrelated languages:
 - Dyirbal (Australia; [Dixon 1979](#)); Chukchi (Sibera; [Comrie 1979](#)); Tongan (Pacific; [Otsuka 2006](#)); Katukina (Amazonia; [Queixalós 2010](#))...
 - According to [Polinsky 2017](#), *most* morphologically ergative languages surveyed in WALS do *not* allow ergative extraction
 - ⇨ On the other hand, morphologically accusative languages do not show a restriction on transitive subject extraction

(43) CASE AND EXTRACTION

	EXTRACTION	
CASE	ERGs extract	ERGs do not extract
nominative-accusative	English, Tamil	<i>unattested</i>
ergative-absolutive	Basque, Niuean	W. Greenlandic, Tongan

- Above in §2 we needed to tie ergative *agreement* to ergative case, in order to derive the gap—here we also need to tie ergative extraction restrictions to ergative case

- In a recent paper, [Deal \(2016\)](#) does exactly this (drawing on [Otsuka 2006, 2010](#) for Tongan). Steps:

- We know that the agreement probe on Inff⁰ may be sensitive to marked case; e.g. Hindi ERGATIVE subjects and Icelandic DATIVE subjects are not eligible targets for agreement...
- Assume that A'-movement always involves an *Agree* relation between a probe on C⁰ and the moved element ([Chomsky 2000](#))
- ⇨ Deal argues that the probe on C⁰ may also be sensitive to case

- As with the case/agreement gap, we predict the correct pattern:

- Some languages allow ergative-case-marked subjects to be targeted by the *wh*-probe on C⁰ (e.g. Basque)
- Other languages *do not allow* ergative-case-marked subjects to be targeted by C⁰ (e.g. W. Greenlandic)

- o Since nominative-accusative languages do not have marked subjects, all subjects may A'-extract (e.g. English)

3.1 A'-extraction in caseless languages

- **Problem:** The same variation found in dependent-marking ergative languages is also found in head-marking ergative languages

(44) CASE AND EXTRACTION

CASE \ EXTRACTION	As extract	As do not extract
	nominative-accusative	English, Tamil
ergative-absolutive	Basque, Niuean	W. Greenlandic
unmarked (erg-agreement)	Ch'ol, Tseltal	Gitksan, Q'anjob'al

- As discussed in [Coon, Mateo Pedro, and Preminger 2014](#), while all Mayan languages show ergative morphology in their agreement system, there is variation in whether ergative subjects may extract

- In Ch'ol, both absolutes (45b) and ergatives (45c) can extract:

(45) CH'OL

- a. Maxki tyi y-il-ä ____(ABS) jiñi wiñik?
Who PFV 3ERG-see-TV DET man
'Who did the man see?'
- b. Maxki tyi y-il-ä x'ixik ____(ERG)?
who PFV 3ERG-see woman
'Who saw the woman?'

- In Q'anjob'al, only absolutes can extract (46b); ergative extraction is ungrammatical (46c):

(46) Q'ANJOB'AL (MAYAN)

- a. Maktxel max y-il naq winaq ____(ABS)?
Who PFV 3ERG-see CLF man
'Who did the man see?'
- b. * Maktxel max y-il ____(ERG) ix ix?
who PFV 3ERG-see CLF woman
intended: 'Who saw the woman?'
(grammatical as: 'Who did the woman see?')

- Similar facts are found in Gitksan:²

- (47) a. Smax=hl jakwd-i-s Lisa ____(ABS)
bear=CN kill-TV-CN Lisa
'Lisa killed a bear.'
- b. * Smax=hl jakwd-i-s ____(ERG) Lisa
bear=CN kill-TV-CN Lisa
intended: 'A bear killed Lisa.'
- (Brown 2016)

- [Deal \(2016, 178\)](#) states that languages like Q'anjob'al and Gitksan—with no morphological case but which ban the extraction of ergative subjects—are a problem for a case-discrimination theory of extraction restrictions:

“[The case-discrimination theory] predicts that bans on ergative A'-extraction should be found only in languages with ergative case marking. . . . this prediction is, at least, not obviously false.”

- If (46b) and (47b) are not evidence of an ergative extraction restriction, what are they?
 - o As Deal notes, special things happen during A'-extraction even in *non-ergative languages* (see e.g. [Baier 2018](#) for recent discussion)
 - o Deal suggests that what we are actually seeing in Q'anjob'al and Gitksan is *not* tied to ergativity, but may be a more general reflex of *extraction morphology*, also found in a range of languages, ergative and not

- **Competing theories:**

1. **Morphological problem; Deal (2016)** — The problem in (46b) and (47b) is *morphological*: these forms are missing a special form of *agreement* (or lack of agreement) needed in transitive subject extraction
2. **Syntactic problem; Coon et al. 2014; Brown 2016** — The problem with (46b) and (47b) is *syntactic*, and the same as the problem seen in West Greenlandic in (41): transitive subjects may not A'-extract do to the configuration of *case assignment*

²The suffix *-s* glossed 'CN' in (47a) is a phonological reduction of two morphemes: the third person ergative (series II) agreement marker *-t* and the connective for proper names, *t* ([Davis 2016](#)). I gloss all connective-related morphemes as CN for simplicity.

The rest of this handout:

- §3.2 – *Wh*-agreement and Anti-agreement
- §3.3 – A case-based account of ergative extraction
- §3.4 – Fixing extraction in Q'anjob'al and Gitksan

3.2 *Wh*-agreement and Anti-agreement

- **Wh-agreement:** “a special form of agreement indexing an A'-extracted argument” (Deal 2016); see Chung 1994, 1998; Chung and Georgopoulos 1988; Georgopoulos 1991; Watanabe 1996...

(48) ABAZA (NORTHWEST CAUCASIAN); GLOSSES SIMPLIFIED

- a. ʃʷə-1-bat'
ABS.2PL-ERG.3SG.FEM-see
'She saw you.'
- b. dəzda s-axč'ja zə-ʋəč'
who 1SG-money ERG.WH-steal
'Who stole my money?' (O'Herin 2002, discussed in Baier 2018)

⇒ Regular agreement markers are replaced with special agreement for A'-extracted arguments (z- for ergative; y- for absolutes)

- **Anti-agreement:** “a special absence of agreement, or appearance of default agreement, found when the argument expected to control agreement has A'-extracted” (Deal 2016); see also Diercks 2009; Henderson 2013; Ouhalla 1993; Ouali 2008; Schneider-Zioga 2007...

(49) KABYLE (BERBER)

- a. t-u6=d tmetʃut seksu.
3FEM-buy.PFV=DIR woman.CS couscous
'The woman bought couscous.'

- b. d tametʃut i d=y-u6-en seksu.
COP woman COMP DIR=WH-buy.PFV-PART couscous
'It's the woman who bought couscous.'

⇒ Regular subject agreement replaced with default 3SG masculine agreement when *subjects* extract

(50) BEMBA (BANTU)

- a. umulumendo a-ka-belenga ibuku
1.boy 1.SUBJ-FUT-read 5.book
'The boy will read the book.'
- b. umulumendo ú-u-ka-belenga ibuku
1.boy 1.WH-1.AA-FUT-read 5.book
'the boy who will read the book' (Cheng 2006)

⇒ Regular subject agreement replaced with default 3SG masculine agreement and participial form of the verb only when *subjects* extract

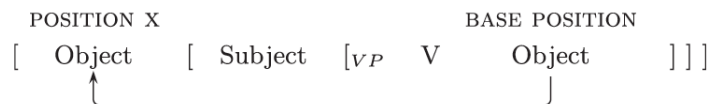
- **Baier (2018):** *wh*-agreement and anti-agreement are two instances of the same underlying phenomenon
 - A ϕ -probe enters into an *Agree* relationship with a Goal that bears an \bar{A} feature—the resulting feature bundle has both $[\phi]$ and $[\bar{A}]$ features
 - ▶ When these two types of features are bundled together, *partial* or *total* impoverishment of the $[\phi]$ -features may take place
 - Baier shows that this impoverishment is constrained in predictable morphological ways (Harley and Ritter 2002)

3.3 A case-based account of ergative extraction

- In what Deal (2016) refers to as the “Standard Theory” of syntactic ergativity (Campana 1992; Ordóñez 1995; Bittner and Hale 1996; Aldridge 2004, 2008; Coon et al. 2014; Assmann et al. 2015), the ungrammaticality of (46b) and (47b) above is a *syntactic problem*

- According to this range of work, the basic problem with extracting ergatives is as represented in (51)

(51) THE STANDARD THEORY



⇒ The transitive object (or perhaps a clitic double, see Harizanov 2014) raises to a position *above* the subject, blocking the ergative subject from extracting

- Some of this work—e.g. Campana 1992; Bittner and Hale 1996; Coon et al. 2014—connects this raising directly to how objects are licensed:
 - Ergative subjects are assigned licensed in situ by transitive v^0 /Voice⁰
 - Transitive objects must be licensed by finite Infl⁰; they raise above the subject for case
- Parameterization of how *absolute* arguments are licensed provides a way to account for variation in whether ergative languages (whether head- or dependent-marking) show extraction restrictions

(52) CASE AND EXTRACTION

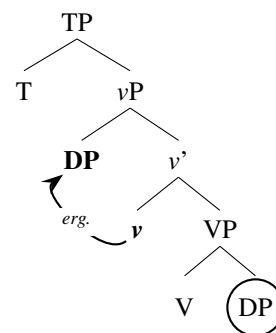
CASE \ EXTRACTION	EXTRACTION	
	As extract	As do not extract
nominative-accusative	English, Tamil	<i>unattested</i>
ergative-absolute	Basque, Niuean	W. Greenlandic
unmarked (erg-agreement)	Ch'ol, Tseltal	Gitksan, Q'anjob'al

- **The empirical landscape:** Ergative languages fall into two groups with respect to extraction of ergative subjects:
 1. languages which permit ergatives to extract (Basque, Ch'ol)
 2. languages which restrict the extraction of ergatives (W. Greenlandic, Tongan, Gitksan, Q'anjob'al)

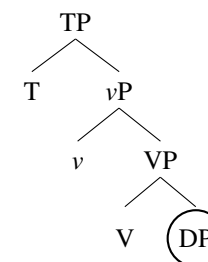
⇒ This is *independent* of head- vs. dependent-marking!

- Independently of syntactic ergativity, Legate (2008) argues for a division within ergative languages based on how *absolute* arguments are licensed...
- ➔ According to Legate, what ergative languages have in common is that ergatives are licensed in situ by v^0 (Woolford 1997)

(53)

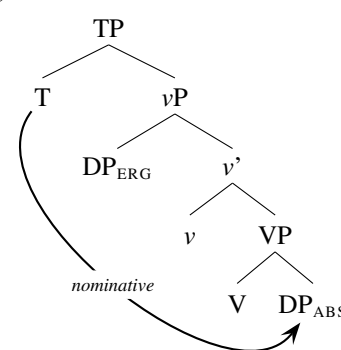


(54)

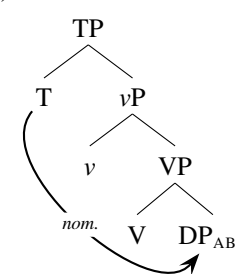


- With respect to *absolute* arguments, ergative languages are divisible into two types, based on how transitive objects are licensed:
 1. **ABS=NOM:** in *absolute=nominative* languages transitive objects and intransitive subjects are licensed by finite T⁰ (Bok-Bennema 1991; Campana 1992; Murasugi 1992)

(55) TRANSITIVE



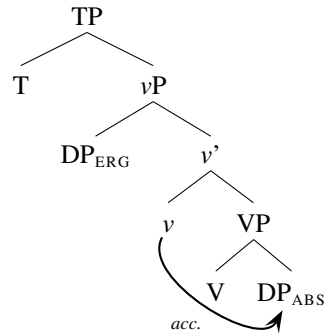
(56) INTRANSITIVE



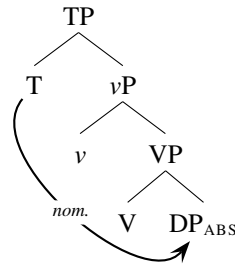
2. **ABS=DEF**: in *absolutive=default* languages, absolutive is a *morphological default*

- transitive objects receive structural accusative from v^0
- intransitive subjects receive structural nominative from T^0
- ⇒ the language spells both of these out via the same default mechanism (often \emptyset)

(57) TRANSITIVE



(58) INTRANSITIVE



► **Coon, Mateo Pedro, and Preminger (2014)**: this independently testable difference correlates with the presence or absence of extraction restrictions in Mayan languages

○ **ABS = NOM** ⇒ **extraction restrictions**

- absolutive arguments are licensed by a high functional head
- absolutive objects are unavailable in non-finite embedded clauses
- the absolutive clitic actually *is* high:

(59) Max=**ach** y-il-a'.
 PFV=2ABS 3ERG-see-TV
 'I saw you.' (Q'anjob'al, cf. (55))

○ **ABS = DEF** ⇒ **no extraction restrictions**

- absolutive arguments do not need to raise above the subject for licensing
- absolutive objects are available in non-finite embedded clauses
- the absolutive clitic is *low*:

(60) Tyi k-il-ä-y=**ety**.
 PFV 1ERG-see-TV=2ABS
 'I saw you.' (Ch'ol, cf. (57))

The big picture:

- ergative languages fall into two groups:
 1. those that permit ergatives to extract
 2. those that restrict ergative extraction
- This is *independent* of whether the language has overt ergative case, or ergative agreement

What this means:

- we can't tie extraction restrictions to overt case—it must be tied to *abstract case assignment*, which underlies both head-marking and dependent-marking systems

3.4 Fixing extraction in Q'anjob'al and Gitksan

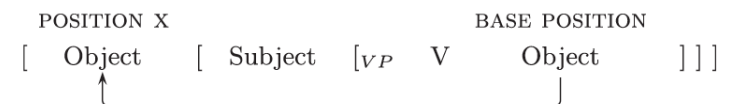
We have two options for what is going wrong with Q'anjob'al and Gitksan from (46c) and (46c) above:

- (61) a. *Maktxel max y-il ____(ERG) ix ix?
 who PFV 3ERG-see CLF woman
 intended: 'Who saw the woman?' (Coon et al. 2014)
- b. *Smax=hl jakwd-i-s ____(ERG) Lisa
 bear=CN kill-TV-CN Lisa
 intended: 'A bear killed Lisa.' (Brown 2016)

1. Something is wrong with the agreement morphology (§3.2)
2. Something is wrong with extracting transitive subjects (§3.3)

• For Coon et al. 2014 on Q'anjob'al and Brown 2016 on Gitksan: the problem is syntactic:

(62) OBJECTS MOVE FOR CASE:



• In neither Q'anjob'al nor Gitksan does the special morphology found in Agent-extraction environments appear in a typical agreement slot

- In both languages, “Agent Extraction” morphology is repurposed elsewhere in the language where syntactic problems arise...

3.4.1 Extracting in Q’anjob’al: Mayan Agent Focus

- Q’anjob’al has a special construction known as “Agent Focus”, used only when transitive subjects are A'-extracted:

(63) AGENT FOCUS
 Maktxel max-ach il-on-i?
 who PFV-2ABS see-AF-ITV
 ‘Who saw you?’

- Following work on related Popti’ by Ordóñez (1995), Coon et al. (2014) argue that *-on* is a head which *assigns case to the transitive object*
- In normal transitive constructions, transitive objects are licensed by Infl⁰ (Legate’s ABS=NOM); as predicted, transitive objects are impossible in nonfinite embedded contexts:

(64) *Chi uj [**hin** y-il ix Malin].
 IPFV be.able.to 1ABS 3ERG-see CLF Maria
 intended: ‘Maria can see me.’

- To embed a transitive clause, *the same Agent Focus form of the verb is used* (see e.g. Kaufman 1990; Quesada 1997; Pascual 2007)

(65) NON-FINITE EMBEDDED TRANSITIVE
 Chi uj [hach y-il-on-i].
 IPFV be.able.to 2ABS 3ERG-see-AF-ITV
 ‘She can see you.’

- There is lots more to be said about Q’anjob’al Agent Focus, but:³
 - *-on* is not occupying an *agreement* slot (cf. the morphology in Bantu, Berber, and Abaza above)—in fact, based on its position, it’s a good candidate for voice/valence-morphology
 - the appearance of *-on* in non-finite embedded clauses receives a natural explanation in an account in which *-on* fixes a case-assignment problem

³Coon et al. 2014 argue that in AF *-on* assigns Case to the object and the subject is licensed by Infl⁰, explaining the lack of ergative agreement—i.e. inherent case-associated agreement—in (63). Non-finite embedded clauses are nominalized and the ergative morpheme in (65) cross-references a grammatical possessor (Mateo Pedro 2009).

3.4.2 Extracting with *an* in Gitksan

Deal (2016): All core arguments pattern differently in Gitksan extraction; this is not really syntactic ergativity, but a tripartite *wh*-agreement split

(66) INTRANSITIVE SUBJECT EXTRACTION

- a. Limx t Lisa.
 sing CN Lisa
 ‘Lisa sang.’
- b. [Naa]=**hl** limx-**it** ___(ABS)?
 who =CN sing-SX
 ‘Who sang?’

(Brown 2016)

- ◊ Intransitive subject extracts; connective =*hl* appears on clause
- ◊ Special suffix (SX) appears on the intransitive verb

(67) OBJECT EXTRACTION

- a. Gub-i=s Lisa=**hl** smax.
 eat-TV=CN Lisa=CN meat
 ‘Lisa ate meat.’
- b. [Gwi]=**hl** gub-i=s Lisa ___(ABS)?
 what =CN eat-TV=CN Lisa
 ‘What did Lisa eat?’

(Brown 2016)

- ◊ Transitive object extracts; connective =*hl* appears on clause

(68) AGENT EXTRACTION

- a. Gya’a=s Lisa=**hl** ’ul.
 see[-TV]=CN Lisa=CN bear
 ‘Lisa saw the bear.’
- b. [Naa] **an=t** gya’a=**hl** ’ul?
 who AN=3.I see=CN bear
 ‘Who saw the bear?’

(Brown 2016)

- ◊ Special morpheme *an* appears, with a 3rd person marker added
- ◊ Verb appear in the *dependent* order; lacks -TV suffix found on independent clauses

Brown (2016): One of these things is not like the others...

(69) EXTRACTION MORPHOLOGY IN GITKSAN (BROWN 2016)

- a. S=hl PRED-Vt
- b. O=hl PRED-TV-II A_{II}
- c. A an=3.I PRED-II O_{II}

• Brown (2016): The *-it* suffix in (66b)/(69b) intransitive subject extraction is a type of *wh*-agreement

- It appears in the regular post-verbal agreement slot
- It only appears in A'-extraction environments
- There may be phonological/prosodic reasons for why it appears only on intransitives (no remaining post-verbal argument, no other verbal suffixes)

► The Agent-extraction construction in (66c)/(69c) is a distinct syntactic construction

• Person-marking in Gitksan follows a “pivoting ergative” system (Davis and Brown 2011):

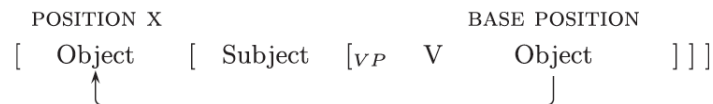
(70) GITKSAN “PIVOTING ERGATIVE”

		SERIES III <i>Pronoun</i>	SERIES II <i>Suffix</i>	SERIES I <i>Clitic</i>
Independent	intrans	S		
	trans	O	A	
Dependent	intrans		S	
	trans		O	A

- SERIES III marks absolutive arguments in *independent* (~matrix) clauses
- Like absolutive in Q'anjob'al, Series III is unavailable in *dependent* (~nonfinite) clauses

► Gitksan is a good candidate for ABS=NOM... but how does it get around the problem in (71)?

(71) OBJECTS MOVE FOR CASE:



• Brown (2016): forms like (68b) above, repeated in (72), do not involve extraction at all:

(72) Naa an [=t gya'a=hl 'ul]?
 who AN [=3.1 see=CN bear
 'Who saw the bear?' (Brown 2016)

- *an* is a nominalizer, appearing productively in nominalizations elsewhere in the language (Tarpent 1987); this explains the shift to the *dependent* order
- (72) more literally ~ 'Who is [the one who saw the bear]?'

► the *wh*-word has not undergone A'-extraction at all

• If this is right, we might expect to find this type of construction in *other* environments in which extraction is banned... and we do!

• In (73) the embedded clause occupies the argument position of the matrix transitive verb *anoog* 'allow'; long-distance extracting the embedded subject results in the expected S-extraction pattern:

(73) Naa=hl gay anoog-a=s Clarissa [dim lim-it _{-(ABS)}
 who=CN DIST allow-TV=CN Clarissa PROSP sing-SX
 'Who did Clarissa allow to sing?' (Brown 2016)

• Sometimes clausal complements appear with an *intransitive* matrix verb, like *bisxw* 'expect':

(74) Bisxw 'nii'y [dim 'witxw=s Aidan]
 expect 1SG.III PROSP come=CN Aidan
 'I expect Aidan will arrive.' (Brown 2016)

• Extraction equivalent to (73) is ungrammatical—perhaps because the bracketed clause is now an *adjunct*

(75) *Naa=hl bisxw `niin [dim `witxw-it]?
 who=CN expect 2SG.III PROSP arrive-SX
 intended: ‘Who do you expect will arrive?’ (Brown 2016)

► Instead, *an* must be used, and the material following *an* again appears with *dependent* conjugation (details in Brown 2016):

(76) Naa=hl **an** [bisxw-in dim `witxw-it]?
 who=CN AX expect-2SG.II PROSP arrive-SX
 ‘Who do you expect will arrive?’ (Brown 2016)

- **Conclusion:** the *an* construction used more generally in Gitksan in environments where movement is illicit
 - extraction of ergative subjects (71) and (72)
 - extraction out of adjunct clauses (76)

One problem, two solutions:

- The problem: Q’anjob’al and Gitksan really are syntactically ergative, just like West Greenlandic
 - In both languages, transitive objects must be licensed across the ergative subject, as in (71)
 - Transitive subjects are restricted from A’-extraction
- **Solution 1:** Q’anjob’al uses a special morpheme to license transitive objects, avoiding (71)
- **Solution 2:** Gitksan avoids A’-extraction altogether (see also Henderson and Coon 2018 on Kaqchikel)

4 Conclusions

When we compare the case, agreement, and extraction possibilities for a range of languages, we find two typological gaps:

(77) CASE AND AGREEMENT

	AGREEMENT	
CASE	nom-acc	erg-abs
nominative-accusative	English, Tamil	<i>unattested</i>
ergative-absolutive	Nepali, Walpiri	Hindi, Kabardian
unmarked	Swahili, Huichol	Ch’ol, Gitksan

(78) CASE AND EXTRACTION

	EXTRACTION	
CASE	As extract	As do not extract
nominative-accusative	English, Tamil	<i>unattested</i>
ergative-absolutive	Basque, Niuean	W. Greenlandic
unmarked (erg-agreement)	Ch’ol, Tseltal	Gitksan, Q’anjob’al

- Previous accounts have either not focused on languages in which ergative alignment is expressed only by agreement (Bobaljik 2008), or have argued that these languages in fact do not show the relevant pattern (Woolford 2000; Deal 2016)

Take-home empirical messages from above:

- (77)/§2: There are at least two ways to show an “ergative-absolutive” agreement system.
 1. Hindi-type: absolutes agree
 - ◊ case-marked ergative blocks agreement
 2. Ch’ol/Gitksan-type: ergatives agree
 - ◊ inherent ergative licensing allows agreement
 - In both, something special is happening to the ergative NP
 - (78)/§3: Head-marking ergative languages really do show ergative extraction restrictions (Brown 2016; Coon et al. 2014)
 - In order to account for the fact that ergative agreement and ergative extraction restrictions are found in languages with with and without morphological case marking...
 - (but neither pattern is found in languages with nominative-accusative case marking)
- ...we need agreement-only and case-having ergative alignment systems to share something in common

► Given the problems with a dependent-case approach to ergative-agreement languages like Ch'ol—i.e.

1. ergative subjects would need to be assigned morphologically null dependent ergative case, via competition with an unmarked (absolutive) object;
2. agreement would need to preferentially target the dependent-case-marked ergative subject, in apparent conflict with Bobaljik's Accessibility Hierarchy

—that “something” probably shouldn't be (null/abstract) dependent ergative case assignment

• We also need to rule out configurationally-assigned dependent accusative case in these languages.

► This problem does not arise if ergative agreement is tethered to inherent ergative case assignment.

Where does this leave ergative case?

- Inherent ergative should minimally be an option. Given assumptions that . . .
 1. v^0 introduces the external argument, and
 2. argument-introducing heads may sometimes assign “quirky” or inherent case (e.g. dative) even in configurational approaches,
- it is unclear what would rule out the possibility of inherent ergative case assigned by v^0

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