Accounting for the Variation in Systems of Case and Agreement
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1 Introduction

In this talk, we are interested in systems of case and agreement, focusing specifically on languages which have overt case and agreement, of an ergative or accusative nature.

Defining Ergativity and Accusativity:

(1) Accusative: 
Transitive: \( A \rightarrow O \)
Intransitive: \( S \rightarrow O \)

(2) a. \( A_{\text{NOM}} V O_{\text{ACC}} \) (transitive sentence)
b. \( S_{\text{NOM}} V \) (intransitive sentence)

(3) a. \( A_{\text{ERG}} V O_{\text{ABS}} \) (transitive sentence)
b. \( S_{\text{ABS}} V \) (intransitive sentence)

Case alignment systems:

- Nom-Acc case: Transitive (A) and intransitive (S) subjects marked NOMINATIVE, objects (O) marked ACCUSATIVE.

- Erg-Abs case: Intransitive subjects (S) and objects (O) marked ABSOLUTIVE, transitive subjects (A) marked ERGATIVE.

Agreement alignment systems:

- Accusative: Agreement is with transitive (A) and intransitive (S) subjects.

- Ergative: Agreement is with objects (O) and intransitive subjects (S).

Looking at the WALS, a comparison of verbal alignment and case alignments identifies the following combinations (Comrie 2013a,b; Siewierska 2013):
In this small sample, we see that:

- Accusative verbal alignment is accompanied by Nom-Acc case (37 languages) or Erg-Abs case (10 languages), or some combination thereof (1 language).
- Ergative verbal alignment is only accompanied by Erg-Abs case (4 languages).
- In languages with ergative case, it is more common for verbal alignment to be accusative rather than ergative (11 languages vs. 4 languages).

Thus, we have three attested case-agreement systems and one non-attested system:

(a) Accusative agreement, Nom-Acc case
(b) Accusative agreement, Erg-Abs case
(c) Ergative agreement, Erg-Abs case
(d) *Ergative agreement, Nom-Acc case

Research Question: How can we explain the variation in case-agreement systems and how can we explain the limits to that variation?

Research Proposal: I will explain the variation in terms of the distribution of PP-cased nominals in the syntax, where PP-cased nominals are invisible to agreement; different PP-distributions produce different patterns of agreement. As nominatives are never PP-cases, systems like (d), in which the nominative is skipped, are excluded.

ROADMAP:
- Cross-linguistic systems of case and agreement
- Case hierarchies and their role in case-agreement systems
- Case assignment: The inherent flavor of PP
- Ergative case as both a structural and inherent case

2 Systems of case and agreement

2.1 Language Type A: Accusative agreement, Nom-Acc case (Polish)

Language Profile:

\[
\begin{array}{cccc}
\text{TP} & \text{Subj} & T_\theta & \text{vP/VP} \\
\text{NOM} & & & \text{V} \\
\text{ACC} & & & \text{Obj}
\end{array}
\]
Language Example: Polish

(8) **On widział mnie.**  
    He.NOM saw.3.SG.M me.ACC  
    ‘He saw me.’

(9) **On biegł.**  
    He.NOM ran.3.M.SG  
    ‘He ran.’

(10) **On przybył.**  
    He.NOM arrived.3.M.SG  
    ‘He arrived.’

- There are no dissociations between agreement target, case marking of the agreement target (NOM, ACC), and grammatical function of the agreement target (subject, object).
- Agreement targets subjects/NOMINATIVES (these being the same).
- **Mirror image A’**: Languages where agreement only targets objects/ACCUSATIVES (unattested).

- Minimalist approaches (Chomsky 2000, 2001) assume a direct relation between case and agreement, where case is the reflex of agreement. Type A languages are unproblematic.

2.2 **Language Type B: Accusative agreement, Erg-Abs case (Nepali)**

Language Profile:

(11) **[TP Subj Tφ [vP/VP ... V ... Obj ] ]**

(12) **[TP Subj Tφ [vP/VP ... V ... ] ]**

Language Example: Nepali

(13) **mai-le me ro lugā dho-en.**  
    I-ERG my clothes-ABS wash-PST.1.SG  
    ‘I washed my clothes.’ (Sharma and Deo 2002: 9)

(14) **ma bas-en.**  
    I-ABS sit-PST.1.SG  
    ‘I sat.’ (Sharma and Deo 2002: 9)

- There is a dissociation between agreement target / grammatical function and case marking of the agreement target.
- Agreement targets subjects, regardless of the case (ERG, ABS).
- **Mirror Image B’**: Languages where agreement only targets objects (unattested).
The mismatch between case and agreement in Type B languages is problematic for standard Minimalist approaches. How can a single probe assign both ergative and absolutive case, this being dependent on the transitivity of the clause?

2.3 *Language Type C: Ergative agreement, Erg-Abs case (Hindi)*

Language Profile:

(15) $\begin{array}{c} [\text{TP Subj}] \\
\text{ERG} \\
T_\phi \\
[\text{[vP/VP ... V ... Obj]}] \\
\text{ABS} \end{array}$

(16) $\begin{array}{c} [\text{TP Subj}] \\
\text{ABS} \\
T_\phi \\
[\text{[vP/VP ... V ... ]}] \end{array}$

Language Example: Hindi

(17) Raam-ne roTii khaayii thii. *Transitive*
Raam-ERG bread$_{F,ABS}$ eat$_{PERF,F}$ be$_{PAST,F}$
‘Raam had eaten bread.’ (Mahajan 1990: 73)

(18) Raam baazaar gayaa. *Intransitive*
Raam$_{ABS}$ market go$_{PAST,M.SG}$
‘Raam went to the market.’ (Mahajan 1990: 73)

- There is a dissociation between grammatical function and agreement target / case marking of the agreement target.
- Agreement targets a particular case (ABS), regardless of the grammatical function.
- *Mirror Image C*: Languages which target only ERG arguments (unattested).

Case and agreement align in Type C languages, this being in line with standard Minimalist approaches. However, it presents a theoretical problem in that agreement can apparently ignore the subject for purposes of agreement. This is generally solved by treating ergative as an inherent case (Woolford 1997, Legate 2008).

2.4 *Language Type D: Ergative agreement, Nom-Acc case (unattested)*

Language Profile:

(19) $\begin{array}{c} [\text{TP Subj}] \\
\text{NOM} \\
T_\phi \\
[\text{[vP/VP ... V ... Obj]}] \\
\text{ACC} \end{array}$

(20) $\begin{array}{c} [\text{TP Subj}] \\
\text{NOM} \\
T_\phi \\
[\text{[vP/VP ... V ... ]}] \end{array}$

- The agreement target is dissociated from both the grammatical function of the agreement target and the case marking on the agreement target.
- Agreement targets complete opposites (ACCUSATIVE objects in transitives, and NOMINATIVE subjects in intransitives).
- *Mirror Image D’*: Languages where agreement only targets transitive NOMINATIVE subjects (unattested).
  - Predicted not to exist under standard Minimalist approaches.

2.5 *Summarizing (with a table):*

<table>
<thead>
<tr>
<th>Transitive</th>
<th>Intransitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR Target</td>
<td>Case of Target</td>
</tr>
<tr>
<td><strong>Target some Matching GF/Case element</strong></td>
<td></td>
</tr>
<tr>
<td>Type A</td>
<td>Subject</td>
</tr>
<tr>
<td>Type A’</td>
<td>Object</td>
</tr>
<tr>
<td><strong>Target a GF, regardless of case</strong></td>
<td></td>
</tr>
<tr>
<td>Type B</td>
<td>Subject</td>
</tr>
<tr>
<td>Type B’</td>
<td>Object</td>
</tr>
<tr>
<td><strong>Target a Case, regardless of GF</strong></td>
<td></td>
</tr>
<tr>
<td>Type C</td>
<td>Object</td>
</tr>
<tr>
<td>Type C’</td>
<td>Subject</td>
</tr>
<tr>
<td><strong>Target some Mismatching GF/Case element</strong></td>
<td></td>
</tr>
<tr>
<td>Type D</td>
<td>Object</td>
</tr>
<tr>
<td>Type D’</td>
<td>Subject</td>
</tr>
</tbody>
</table>

- Types A, B, and C are attested, and D not.
- Types A’ and B’ (the mirror images of Types A and B) seem to be unattested. These might be ruled out by the universal that object agreement is not possible without subject agreement (cf. Bobaljik 2008, Bejar 2003, and other works).
- Type D’ might be ruled out independently, under the logic that allowing for agreement with a transitive nominative subject, but not an intransitive nominative subject would provide conflicting information about agreement targets to a child, making the language type unlearnable.

3 *Hierarchies*


(21) Unmarked case (NOM, ABS) > Dependent case (ERG, ACC) > Lexical/Inherent case

He argues that case feeds agreement, where agreement targets the structurally highest nominal with an accessible case, where accessibility is language specific. Thus, language types A, B, and C would fall on the hierarchy as follows:

(22) Unmarked case (NOM, ABS) > Dependent case (ERG, ACC) > Lexical/Inherent case

Type A, C (Polish, Hindi)

Type B (Nepali) (Bobaljik 2008)
Evidence for this can be found in configurations in which there are multiple accessible cases within a single domain.

**Hindi:** Some verbs optionally mark ergative. When the ergative is present, agreement targets the absolutive object; when the ergative is absent, it targets the highest absolutive argument.

(23) a. Us-ne *yah baat* səmjhii.  
    He-ERG(M) this *matter.*F understand.PERF.F 
    ‘He understood this matter.’  
b. Vo *yah baat* səmjhaa.  
    He.M this *matter.*F understand.PERF.M 
    ‘He understood this matter.’ (Mahajan 2012: 207)

If no absolutive argument is present, default agreement surfaces.

(24) BacoN-ne *siitaa-ko dekhaa thaa.*  
    children-ERG Sita-DAT see.PERF.M.SG be.PAST.M.SG 
    ‘The children had seen Sita.’ (Mahajan 1990: 73)

- Bobaljik’s system correctly predicts an ergative agreement pattern when ergative case is present, and default agreement when no absolutes are present.

**Nepali:** Both ergatives and absolutes are accessible targets. Thus, in a transitive clauses, agreement is with the highest of two accessible targets.

    I-ERG my *clothes-ABS wash-PST.1.SG* 
    ‘I washed my clothes.’ (Sharma and Deo 2002: 9)  
b. *ma* *bas-en.*  
    I-ABS *sit-PST.1.SG* 
    ‘I sat.’ (Sharma and Deo 2002: 9)

- Bobaljik’s system correctly predicts an accusative agreement pattern, even when ergative case is present.

**Type D Languages (Ergative agreement, Nom-Acc case):** The nature of the accessibility hierarchy makes this language type unformulable:

- By the accessibility hierarchy, if an ACCUSATIVE is an accessible agreement target, then so is a NOMINATIVE.
- In a Type D language, agreement bypasses a higher NOMINATIVE to agree with a lower ACCUSATIVE. This violates the generalization that agreement targets the highest accessible argument.

(26) \[TP \text{ Subj: NOM} \quad T_{\phi} \quad [vP/vP \quad \ldots \quad V \quad \ldots \quad \text{Obj: ACC}] \]

- Hence, it is unformulable in the system, and predicted not to exist.
Concluding,

- Bobaljik’s system appears to capture the main facts of the case-agreement systems considered here.

- The formulation of the hierarchy suggests that each language has encoded in its system information such as “ergative is accessible,” “ergative is not accessible,” etc., which resembles a global constraint over derivations in a language.

- **Question:** Is such information actually encoded as a global constraint, as the use of a hierarchy would suggest, or does the hierarchy derive from other factors?

- For the remainder of this talk, we will adopt the view that there is no global constraint (i.e. the hierarchy does not exist), and instead, search for independent factors which could derive these differing systems on the level of a single derivation.

### 4 The opacity of inherent case

**Assumption:** Inherent/lexical cased nominals are embedded within PP-like elements which trigger inherent/lexical case.

Taking inherent case to be realized by some PP-like element (e.g. Řezáč 2008, McFadden 2004, 2014; Pesetsky 2013), it is generally opaque to external processes.

**Icelandic Dative Subjects:**
- The dependent case mechanism (Marantz 1991; Baker in progress) would expect an interaction of inherent-cased subject with dependent case (ACC) assignment, where inherent-cased subjects bleed dependent case assignment.
- When two non-inherent cased nominals are involved in the case computation, both NOM (unmarked case) and ACC (dependent case) are assigned:

(27) Við kusum stelpuna.
We.1.PL.NOM elected.1.PL girl.ACC
‘We elected the girl.’ (Sigurðsson 1992: 2)

- When an inherent cased nominal is involved, however, NOM surfaces on the object rather than ACC, as if the dative subject is invisible to the case computation:

(28) Konunginum voru gefnar ambáttir.
King.M.SG.DAT were.3.PL given.F.PL slaves.F.PL.NOM
‘The king was given maidservants.’ (McFadden 2004: 25)

**Polish Genitive of Negation:**
- Negation obligatorily marks ACC objects as GEN:

(29) a. Łukasz widział dziewczynę.
Łukasz.NOM saw.3.M.SG girl.ACC
‘Lukas saw a girl.’
b. Łukasz nie widział dziewczyny.
Łukasz.NOM not saw.3.M.SG girl.GEN
‘Lukas did not see a girl.’

- Inherent cased objects are invisible to the genitive of negation and remain unaffected:

(30) a. Łukasz ufa dziewczynie.
Łukasz trusts.3.SG girl.DAT
‘Lukas trusts the girl.’
b. Łukasz nie ufa dziewczynie.
Łukasz not trust.3.SG girl.DAT
‘Lukas does not trust the girl.’

- PP objects are also invisible to the genitive of negation:

(31) a. Łukasz czekał na autobus.
Łukasz waited.3.SG for bus.ACC
‘Lukas waited for the bus.’
b. Łukasz nie czekał na autobus / *autobusu.
Łukasz not waited.3.SG for bus.ACC / *bus.GEN
‘Lukas did not wait for the bus.’

Agreement:
- Polish inherent cased nominals cannot be agreed with, leading to default agreement (Dziwirek 1990; Preminger 2011).

(32) Nudziło mi się.
Bored.3.SG.N me.DAT SIE
‘I was bored (lit. ‘It was boring to me.’)

- Icelandic dative subjects cannot be agreed with either (leading instead to some form of object agreement):

(33) Konunginum voru gefnar ambátir.
King.3.SG.DAT were.3.PL given.F.PL slaves.F.PL.NOM
‘The king was given maidservants.’ (McFadden 2004: 25)

(34) [ SubjectDAT V3.PL participleF.PL ObjectF.PL.NOM ]

Conclusion: PP-cases are generally opaque to processes such as external case assignment and agreement.
5 Fitting Inherent Case into Systems of Case and Agreement

5.1 Putting the pieces together

Proposal:
- Inherent case is a PP-case.
- Languages can differ in their inventory of PP-cases.
  - For example, a language might have both a structural and an inherent ACC, or only a structural ACC.
- PP-cases are generally invisible to external processes, such as agreement.
- Hypothesis: The variation found in systems of case and agreement is a result of the inventory of PP-cases within a language, where PP-cased nominals are invisible to agreement, and non-PP-cased nominals are not.
- Agreement probes for the first accessible target.
- Hindi versus Nepali? Ergative is a PP-case in Hindi, but a structural case in Nepali.

Hindi (Type C):

(35) a. Raam baazaar gayaa.
   Raam\ABS market go.PAST.M.SG
   ‘Raam went to the market.’

b. Raam-ne roTii khaayii thii.
   Raam-ERG breadF,ABS eat.PERF.F be.PAST.F
   ‘Raam had eaten bread.’

c. BaccoN-ne siitaa-ko dekhaa thaa.
   childrenM-ERG SitaF-DAT see.PERF.M.SG be.PAST.M.SG
   ‘The children had seen Sita.’ (Mahajan 1990: 73)

(36) (a) Transitive (= 35b) (b) Intransitive (= 35a)

(c) Semi-transitive: Ergative subject and dative object ( = 35c)
Nepali (Type B):

(37) a. **mai-le mero lugā dho-en.**  
   I-ERG my clothes-ABS wash-PST.1.SG  
   ‘I washed my clothes.’ (Sharma and Deo 2002: 9)  

b. **ma bas-en.**  
   I-ABS sit-PST.1.SG  
   ‘I sat.’ (Sharma and Deo 2002: 9)

(38) (a) Transitive (= 37b)  
   (b) Intransitive (= 37a)

Unattested (Type D):

(39) (a) Transitive  
   (b) Intransitive

- Type D languages are unformulable in this system.  
  - Agreement targets the highest accessible argument.  
  - Nominatives are never embedded in PPs.  
  - Hence, nominatives are always an agreement target.  
  - In this configuration, agreement skips over an accessible target. This is impossible, hence Type D languages cannot be derived.

5.2 The PP nature of (some) ergatives

Gojri (Indo-Aryan) is another language which shows a Hindi agreement pattern, i.e. a PP-like ergative. Agreement occurs with the object when the subject is ergative:

(40) **Us ḣān-ā ne wā betk-ī hēr-0-ī.**  
   3SG.DIST.OBL man-OBL.M.SG ERG 3SG.DIST.NOM.F girl-F.SG see-PERF-F.SG  
   ‘That man saw the girl.’ (Losey 2002: 117)

The ergative marker *ne* requires the nominal to be an oblique form. Oblique forms are also required by many postpositions in the language, for example, the ablative (source/origin):
Is ėṭel te hū~ kis-śāne nas-ū~. 
3SG.PROX.OBL jail from 1SG.NOM INDEF.OBL-way run.away-1SG

‘How shall I escape from this jail?’ (Losey 2002: 118)

Assuming the ergative marker to be a P which selects for oblique case, the morphological and agreement facts can be captured.

Hindi:

- Nominals also have an oblique form, which is required with all cases except the absolutive (Butt and King 2005). This applies to both postpositions and case morphemes, and is an example of a P-like behavior.
- In coordinations, oblique morphology must be present on each nominal, while the case morpheme can scope over the coordination.

(42) a. *[[ kott or g₄or]-e]=ko dog and horse-M.SG.OBL=ACC
b. *[[ kott-a or g₄or]-e]=ko dog-M.SG and horse.M.SG-OBL=ACC (Butt and King 2005: 17)

(43) Yasin-ne [kutt-e or g₄or-e]=ko dele₃-a he. Yassin.M.SG-ERG dog-M.SG.OBL and horse-M.SG.OBL=ACC see.PF.M.SG be.PRS3SG

‘Yassin saw the dog and the horse.’ (Butt and King 2005: 17)

- Focus clitics can intervene between the case marking and the nominal, but not between the oblique marking and the nominal.

(44) a. us=hi=ne kam ki-ya 3.SG=FOC=ERG work.M.SG.NOM do-PERF.M.SG

‘That one himself/only did (the) work.’

b. *kott-hi-e dog-FOC-OBL (Butt and King 2005: 17)

- (Note: According to Butt and King, these markers also differ from the more semantic postpositions, and they suggest a three-way distinction between oblique marking, case markers, and postpositions.)
- These facts are consistent with an analysis in which the case marker is a P-head which selects for or triggers an oblique form of the nominal.

Nepali: Does the ergative differ on these facts in Nepali? Further research necessary!

5.3 Multiple agreement probes

- We have assumed there to be only one agreement probe so far, on T.
- Some languages can have multiple probes, agreeing with subjects and objects.
- Suppose a second agreement probe can sit on v (cf. Bejar 2003 on Georgian and Nishnaabemwin (Algonquian)).
**Blackfoot** (Algonquian): Nominative-accusative agreement on T. But, verb stems show an ergative agreement pattern in marking animacy:

(45) a. áaksipákksskaawa. *Animate Intr.*
aak-ipakksskaa-wa
FUT-burst.AI-3SG
‘He will burst.’

b. áaksipáksiwa. *Inanimate Intr.*
aak-ipakksi-wa
FUT-burst.II-3SG
‘It will burst.’

c. áaksipakkapíniiyiwa. *Animate Tr.*
Aak-ipakkapini-yii-wa
FUT-rupture.eyeball.AT-DIR-3SG
‘She will rupture his eyeball.’

d. áaksipakksstsima. *Inanimate Tr.*
aak-ipakkssts-ii-wa
FUT-burst.IT-3:INAN-3SG
‘She will burst it.’

(Frantz and Russell 1995, glosses: Gruber 2013: 60)

- Assuming Cyclic Agree (Řezáč 2003), ergative agreement would be derived as follows (Bejar 2003):

(46) (a) Transitive (b) Unergative intransitive (c) Unaccusative intransitive

\[\begin{align*}
\text{TP} & \quad \text{TP} & \quad \text{TP} \\
T & \quad T & \quad T \\
vP/VP & \quad vP/VP & \quad vP/VP \\
S & \quad S & \quad S \\
X_\phi & \quad X_\phi & \quad X_\phi \\
O & \quad O & \quad O
\end{align*}\]

- Béjar (2003) proposes that \(v\) can only carry an agreement probe if \(T\) also carries one.
- Thus, the possibility for multiple agreement probes may lead to both accusativity and ergativity in the agreement system. These possibilities need to be explored yet.

6 Conclusion

- We have seen examples of at least three case-agreement systems.
- I have proposed that inherent case is the realization of some form of a P-head, and that languages can differ in their inventories of P-headed cases.
- P-cases are generally opaque to external processes, such as agreement.
- Putting this together, we can derive the systems of case and agreement by assuming that some cases are PP-cases and others not, leading to differences in patterns of agreement cross-linguistically.

7 References


