# **Generative Approaches to Ergativity**

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Case/case; Agree/agreement
Ergative case
Absolutive "case"

# 1 Case/case; Agree/agreement

- case morphological marking on nominals
- Case abstract case features
  - o (possibly required by all nominals, regardless of surface form)
- **agreement** morphological marking of the features of an NP surfacing on another element, often the predicate
- Agree abstract relationship between a functional head and a goal
  - o (possibly underlies case, Case, and agreement!)

# 1.1 Morphological case

In many languages, the form of a noun or nominal element changes depending on its grammatical function/syntactic context

- German has 4 cases, roughly: nominative (subjects); accusative (objects); dative (indirect objects); genitive (possessors)
  - (1) GERMAN
    - a. [NOM **Der** Mann] ist müde.

      DET man is tired

      'The man is tired.'
    - b. Ich sehe [ACC den Mann].

      I see DET man

      'I see the man.'
    - c. Ich gab [DAT dem Mann] das Buch.
      I gave DET man DET book
      'I gave the man the book.'
    - d. das Haus [GEN des Mannes]

      DET house DET man

      'the man's house'
- More examples of "argument cases"—cases that (usually/often) correspond to grammatical role (from Blake 1994; Pylkkänen 2008):
  - (2) a. Taroo-**ga** Hanako-**ni** tegami-**o** kaita.

    Taro-NOM Hananko-DAT letter-ACC wrote

    'Taro wrote Hanako a letter.' (Japanese)
    - b. John-i Mary-hanthey pyunci-lul sseessta.
      John-NOM Mary-DAT letter-ACC wrote

      'John wrote Mary a letter.' (Korean)
    - c. Mehmet adam-a elma-lar-ı ver-di.

      Mehment.NOM man-DAT apple-PL-ACC give-PAST.3SG

      'Mehmet gave the apples to the man.' (Turkish)
    - d. Dominus equum cōnsulī dedit.
      master.NOM horse.ACC consul.DAT give.PERF.3SG
      'The master gave the horse to the consul.' (Latin)
    - e. Juan Maria-man cuenta-ta willa-rqa
      Juan.NOM Maria-to story-ACC tell-3SG.PST

      'Juan told the story to Maria.' (Quechua)

- Recall the ergative pattern we are interested in:
  - $\circ$  transitive subjects (A)  $\rightarrow$  ergative case
  - transitive objects (P) and intransitive subjects (S) → "absolutive"
     (often unmarked)

#### (3) INUKTITUT

- a. Arna-**up** niri-ja-nga aapu. woman-ERG eat-DECL.TR-3SG.3SG apple 'The woman is eating the apple.'
- b. Arnaq pisuk-tu-q.woman walk-DECL.INTR-3SG'The woman is walking.' (Compton 2017)

**Other cases:** Not all morphological cases correspond directly to a grammatical role

- Finnish has multiple possibilities for indirect objects
  - (4) FINNISH
    - a. Liisa kirjoitti Mati-lle kirjee-n. Liisa.NOM wrote Matti-ALL letter-ACC 'Liisa wrote Matti a letter.'
    - b. Liisa myi Mati-lta talo-n.
       Liisa.NOM sold Matti-ABL house-ACC
       'Liisa sold Matti's house.' (lit. 'L sold a house from M')
- Prepositions may trigger different morphological cases on their complements. Latin makes a two-way distinction between "accusative" and "ablative":
  - (5) a. ante ocul-**ōs**before eye-ACC.PL
    'before the eyes'
    - b. de ocul-is from eye-ABL.PL 'from the eyes'

(Latin)

• The Finnish "allative" and "ablative" case endings on the indirect objects in (4-a)–(4-b) correspond to more general locative (adjunct) cases:

(6)	FINNISH LOCATIVE CASES	(Comrie and	Polinsky	1998,	106)
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-ssa	inessive	'in'
-hVn	illative	'into'
-sta	elative	'from (inside)'
-lla	adessive	'at, on'
-lle	allative	'to (outside), onto'
-lta	ablative	'from'

While some languages have little (e.g. English) or no (e.g. Mandarin) morphological case, others have many...

- Uralic, Dravidian, and Nakh-Daghestanian languages are known for rich morphological case systems
- Some Nakh-Daghestanian languages have been claimed to have 50 or more cases
  - However, the number of argument cases is relatively small, corresponding to subject, object, possessor, and indirect object (see Blake 1994)
  - Most other forms are locative cases, like the Finnish system in
     (6); see Comrie and Polinsky 1998

Table 3. Tsez local case forms: non-distal.

	essive	allative	Case ablative	versative ('towards')
'in'	-ā	-ã-r	-āy	-āyor
'among'	-λ	-l-er	-λ-āy	-\(\lambda\)-xor
'on (horizontal)'	-X'(o)	-Х'о-г	-X'-āy	-λ'-āyor, -λ'-ār
'under'	-Ã	-X-er	-X-āy	-\u03b4-xor
'at'	-x(o)	-xo-r	-x-ãy	-x-āyor, -x-ār
'at' 'near'	-de	-de-r	-d-āy	-d-āyor, -d-ār
'on (vertical)'	-q(o)	-q <b>o-r</b>	-q-āy	-q-äyor, -q-är

(7) IMPLICATIONAL HIERARCHY FOR MORPHOLOGICAL CASE (BLAKE 1994) subject case/object > possessor > indirect object (i.e. NOM, ACC ERG, ABS > GEN > DAT)

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### 1.2 (Abstract) Case

In a letter from Jean-Roger Vergnaud, to Noam Chomsky and Howard Lasnik (Vergnaud 1976/2006)...

Paris, April 17, 1977

Dear Howard, Dear Noam,

I got your paper, three weeks ago. It is quite exciting. I believe I have some ideas to communicate to you now...

In 1977, Chomsky and Lasnik published "Filters and Control" (Chomsky and Lasnik 1977). Much of F&C focuses on understanding and constraining **the distribution of NPs** in sentences like:

- (8) (Chomsky and Lasnik 1977, 450)
  - a. It is illegal [ for **John** to take part ].
  - b. It is likely [ that **John** will take part ].
  - c. \*It is certain [ John to take part ].
  - d. **John** is certain [ to take part ].
  - e. \*John is illegal [ to take part ].
  - In his letter, Vergnaud suggested that the restrictions on NPs is connected to another property of NPs: **case**
- ▶ ... even in languages without morphologically overt case, like English

ullet Observation: in languages with overt morphological case, like Turkish, Latin, and Japanese, *accusative* case is found on the complements of V and sometimes  $P^1$ 

- (9) LATIN

  a. [VP scripsit libr-um] wrote book-ACC

  b. [PP ad Hispani-am] to Spain-ACC
- ...but not on complements to N or A; these require a different type of case, e.g. genitive or ablative:
  - (10) LATIN NPS

    a. [NP amor libertat-is ]
    love liberty-GEN
    'love of liberty'
    b. \*[NP amor libertat-em ]
    love liberty-ACC
    c. [NP amor [PP in patri-am ]]
    love into country-ACC
    'love for one's country'
  - (11) LATIN APS
    - a. urbs [AP nuda praesidi-o city naked defense-ABL 'a city deprived of defines'
    - b. \*urbs [ $_{AP}$  nuda praesidi-**um** ] city naked defense-ACC
    - c. [AP liberi [PP a delici-is ]
      free from luxury-ABL
      'free from luxuries'
    - d. \*[AP liberi delici-**as** free luxuries-ACC

<sup>&</sup>lt;sup>1</sup>Latin and Russian examples and discussion in this section modelled after Pesetsky and Torrego 2011.

- A first pass at rules of case-assignment in Latin-type languages:
  - (12) DISTRIBUTION OF ACCUSATIVE CASE
    - a. V and P assign accusative case to an NP complement
    - b. N and A do not assign accusative case (to an NP complement)
- In English, we don't see case marking anywhere on non-pronominal NPs, but as Vergnaud observed the *distribution* of NP complements mirrors the availability of accusative case in Latin:
  - Vs and Ps appear with NP complements
    - (13) a. [VP wrote **the book**] b. [PP to **Spain**]
  - Ns and As do not
    - (14) a. [NP love of liberty]
      b. \*[NP love liberty] (bad under NP reading)
      c. [NP love [NP for their country]]
    - (15) a. [AP free from **luxuries**] b. \*[AP free **luxuries**] (bad under AP reading)
- In languages with overt morphological case, case must appear when the morphologically appropriate form exists
- In languages *without* overt morphological case, the distribution of NP complements mirrors the distribution of accusative case in e.g. Latin
  - ➤ Vergnaud's idea: Whether a language has overt case morphology or not is irrelevant to the distribution—even in languages with overt morphological case, some nouns do not take case-marking
- Russian has a class of "indeclinable" nouns, mostly foreign borrowings

• These nouns cannot appear with case morphology, but still appear in all the same positions as regular nouns

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RUSSIAN (PESETSKY AND TORREGO 2011, 3)
(16)
           [VP vidit mašin-u]
                sees car-ACC
           [VP vidit kenguru
                sees kangaroo.ACC
            [PP v mašin-u]
                into car-ACC
            [PP v kenguru
               into kangaroo.ACC
            [NP uničtoženie mašin-y ]
                destruction car-GEN
           [NP uničtoženie kenguru
                destruction kangaroo.GEN
            [NP ljubov' [PP k mašin-e]]
                love
                          to car-DAT
            [NP ljubov' [PP k kenguru ]]
                          to kangaroo
                love
           [AP dovolen mašin-oj]
                satisfied car-INST
            [AP dovolen kenguru
                satisfied kangaroo.INST
            [AP serdit [PP na mašin-u]]
                angry
                        at car-ACC
            [AP serdit [PP na kenguru
                                         ]]
                         at kangaroo.ACC
                angry
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**▶** Basically, all nouns in English are Russian *kenguru* 

Chomsky (1980, 1981): In English, there is an *abstract* version of Latin's morphological case, call it "Case", morphologically observable only in personal pronouns

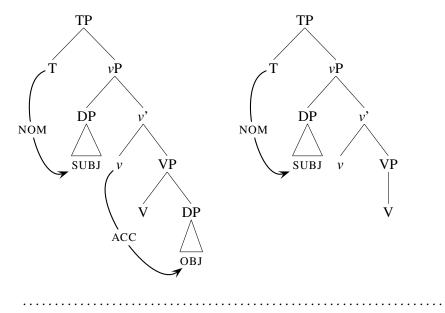
**More generally:** The presence or absence of Case governs the distribution of NPs

- (17) CASE FILTER (PARAPHRASING CHOMSKY 1981) Every overt NP must be assigned Case
  - Two distinctions:
    - 1. What kinds of elements can assign (accusative) Case?
      - o **Assigners:** V and P
      - o Non-assigners: N and A
    - 2. What kinds of elements need Case?
      - ∘ Need Case: NP
      - o Don't need Case: CP, PP
  - PPs do not need to be in positions where Case is assigned:
  - (18) a. her proof [ $_{PP}$  of the theorem ]
    - b. convinced [PP] of the theorem ]
    - c. \*her proof the theorem
    - d. \*convinced the theorem
  - CPs are also fine in Caseless positions:
    - (19) a. COMPLEMENT TO N her belief [CP that it would snow ]
      - b. COMPLEMENT TO A convinced [CP that it would snow ]
  - A first stab at accusative Case assignment:
    - (20) ACCUSATIVE CASE ASSIGNMENT
      V and P assign accusative Case to their complements
  - What about nominative Case and subjects? Apparently, only subjects of finite/tensed clauses receive nominative:

- (21) a. Henry was worried [ that Ella ate all the cake ]. b. \*Henry was worried [ Ella to eat all the cake ].
- (22) NOMINATIVE CASE ASSIGNMENT
  Finite T assigns nominative Case to the subject

\* \* \*

- Jumping ahead some decades, we have...
  - (23) NOMINATIVE-ACCUSATIVE (STATUS QUO)



### 1.3 agreement and Agree

Much recent work on morphological and abstract case focuses on the relationship between Case/case and Agree/agreement

- In many languages, *nominative subjects* consistently trigger agreement on the verb:<sup>2</sup>
  - (24) Bērn-s zīmē veikal-u.
    child-NOM draw.3SG.PRES store-ACC
    'The child is drawing a store.' (Latvian; Polinsky and Preminger 2014)
- In earlier generative work, T<sup>0</sup>/Infl<sup>0</sup> was considered responsible for nominative Case assignment and finite verb agreement (e.g. Stowell 1981; Chomsky 1986), but these were not necessarily connected
  - T<sup>0</sup> assigned nominative to the subject and triggered movement to its specifier
  - agreement was a side effect of the fact that the subject was in Spec,TP
- More recently, case and agreement are taken to be the result of a single abstract syntactic operation: **Agree** 
  - For Chomsky (2000, 2001), Agree is posited to be one of only two syntactic operations (= Merge, Agree)
  - **Agree:** Feature valuation of a <u>probe</u> with unvalued features [uF] by a goal bearing [F].
- Case and agreement go hand in hand. For instance, for nominative case and subject agreement in (23):
  - 1. Finite  $T^0$  has unvalued  $\phi$  features ( $\phi$  = person, number, and gender features)
  - 2. The probe searches its c-command domain for the closest DP bearing  $\phi$

- 3. The DP's φ-feature values are copied back to the probe—these may be spelled out as morphological agreement
- 4. The unvalued Case features on the DP receive a value—this may be spelled out as morphological case—(here "nominative") (and similar for accusative case from  $v^0$  to the object, along with possible object agreement)
- ► In this type of model, nominative and accusative are considered "structural cases"—assigned in a "probe–goal" configuration
  - o i.e. the probes enter into Agree with, and assign Case to, whichever DP happens to be structurally closest—here the subject and the object
  - Lots more to discuss here, for instance...
    - Is there a role for *uninterpretable* features? Can failed Agree cause the derivation to crash (as in Chomsky 2000, 2001)? or not (Preminger 2014)?
    - Do all DPs bear unvalued Case features? or do only certain types of DPs require Case? (Kalin 2018)
    - What are the details of the Agree mechanism and feature transfer? (Hiraiwa 2001; Béjar and Rezac 2003, 2009; Deal 2015; Coon and Keine 2019)

# 2 Ergative case, two ways

- Structural case works well for a nominative accusative system:
  - $\circ$  Transitive  $v^0$  assigns Case to the object (=accusative)
  - Finite T<sup>0</sup> assigns Case to both transitive and intransitive subjects (=nominative)
- ➡ This won't work in an ergative-absolutive system in which only transitive subjects receive ergative.

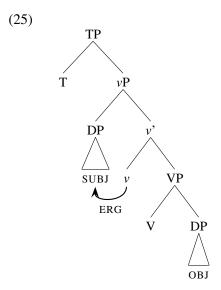
<sup>&</sup>lt;sup>2</sup>Parts of this section modelled on Polinsky and Preminger 2014.

⇒ Furthermore, a range of recent work has argued that morphological case is not assigned by probes through Agree, but rather is assigned configurationally (and abstract Case is either not needed, or also taken care of this way); much of this literature focuses on ergative systems, so we'll look at these proposals too.

# • Two main proposals on the market

- 1. Ergative case is an **inherent case**, assigned by transitive  $v^0$  (or Voice<sup>0</sup>) to the DP in its specifier (Woolford 1997; Legate 2008)
- 2. Ergative case is a **dependent case** assigned *configurationally* to the higher of two DPs in a specific domain; the mirror image of accusative (Marantz 1991; Baker and Bobaljik 2017)

# 1. Ergative-as-inherent, e.g. Woolford 1997:



- ⇒ Like the assignment of nominative and accusative, *ergative* under this approach is assigned by a functional head to a DP, in the syntax.
- However, while nominative and accusative are *structural* cases—assigned by a functional head to a DP in the right

structural configuration, ergative is an *inherent* case: it is assigned by  $v^0$  to the external argument merged in its specifier position directly upon *Merge*.

- 2. Ergative as dependent case, assigned upwards, e.g. Marantz 1991; Baker and Bobaljik 2017
  - Case is assigned not by probes to goals, but *configurationally* to DPs within a certain domain, following a *case competition* algorithm in (26)
    - (26) Case realization disjunctive hierarchy (Marantz 1991)
      - a. Lexically governed (including quirky) case
      - b. Dependent case (accusative case and **ergative**)
      - c. Unmarked case (nominative and absolutive)
  - Originally, dependent case was designed specifically as part of the *post-syntactic morphological component* (Marantz 1991; McFadden 2004), and disassociated entirely from licensing.
  - More recent work has located dependent case *in the syntax*, and reconnected it to licensing (Baker and Vinokurova 2010; Baker 2015)

- Under this approach, ergative case is the mirror image of accusative case: it is assigned to the higher of two DPs in some specified domain.
- Far from resolved, this is an active topic of current debate!; see e.g. Baker and Bobaljik 2017 and Legate 2017 for recent discussion.

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#### Practice!

- The data below are from Shipibo, a Panoan language spoken in Peru and Brazil. The basic ergative—absolutive pattern is shown in (28).<sup>3</sup>
  - (28) a. Maria-nin-ra ochiti noko-ke.

    Maria-ERG-PRT dog find-PRF

    'Maria found the dog.'
    - b. Maria-ra ka-ke.
      Maria-PRT go-PRT
      'Maria went.'
    - c. Joni-bo-ra teet-ai.person-PL-PRT work-IMPF'The people are working.'
- Shipibo has an applicative suffix, -xon. This suffix attaches to transitive and unergative verbs, as in (29-a) and (29-b), and adds an argument which is interpreted as having been affected by the event (either benefactive or malefactive):
  - (29) a. Jose-kan-ra Rosa atapa rete-xon-ke.

    Jose-ERG-PRT Rosa hen kill-APPL-PRF

    'Jose killed a hen for Rosa.'
    - b. Papashoko-n-ra Rosa bewa-xon-ai. grandfather-ERG-PRT Rosa sing-APPL-IMPF 'The grandfather is singing for Rosa.'

- The applicative suffix can also attach to *unaccusative* verbs, as in (30):
  - (30) a. Nokon shino-n-ra e-a mawa-xon-ke. my.GEN monkey-ERG-PRT me-ABS die-APPL-PRF 'My monkey died on me.'
    - b. \*Nokon shino-ra e-a mawa-xon-ke. my.GEN monkey-PRT me-ABS die-APPL-PRF intended: 'My monkey died on me.'
    - c. Bimi-n-ra Rosa joshin-xon-ke. fruit-ERG-PRT Rosa ripen-APPL-PRF 'The fruit ripened for Rosa.'
    - d. \*Bimi-ra Rosa joshin-xon-ke. fruit-PRT Rosa ripen-APPL-PRF intended: 'The fruit ripened for Rosa.'
- ➤ Your task: Baker and Bobaljik (2017) argue that the Shipibo data in (28)–(30) support one of the theories above. Which one and how?

<sup>&</sup>lt;sup>3</sup>Abbreviations are as follows, though you only need to focus on the case marking: APPL – applicative; ERG – ergative; EVID – evidential; GEN – genitive; IMPF – imperfective; PL – plural; PRT – particle; PRF – perfective.

- ➤ What about the Dharamsala Tibetan (from McGill Field Methods 2014; Tashi Wangyal p.c.) in (31)?
  - (31) a. Tashi-ki thep cik ti song
    Tashi-ERG book a write EVID
    'Tashi wrote a book'
    - kesa Tashi lep song yesterday Tashi arrive EVID 'Tashi arrived yesterday.'
    - kesa nye kyel gyap yin yesterday 1ERG swim V EVII
       'I swam yesterday.'
    - d. kesa Tashi-ki ngü songyesterday Tashi-ERG cry EVID'Yesterday Tashi cried.' (on purpose, e.g. pretending)
    - e. kesa Tashi ngü song yesterday Tashi cry EVID 'Yesterday he cried.'

# 3 Absolutive "case"

What about absolutive?

- 1. **configurational:** absolutive is the unmarked case, as in (26)
  - (or, it's just the absence of Case, depending on one's view of whether Case is necessary)
- 2. **structural:** absolutive is assigned by a functional head
  - ... but which one?

# Legate (2008): "absolutive" is not a unified category

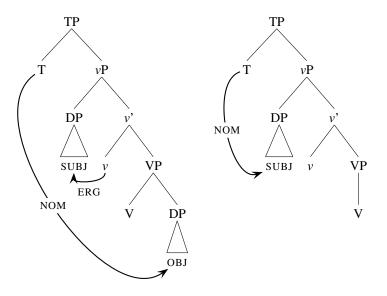
- Recall that morphological case is the spell-out of abstract Case features
- **▶** Depending on the morphological inventory in a given language, there may be an *imperfect relationship* between abstract Case features and surface case forms.
- Terminology for Legate:
  - $\circ$  NOMINATIVE = the Case assigned by finite  $T^0$
  - ERGATIVE = the Case assigned by  $v^0$  to transitive subjects
  - ACCUSATIVE = the Case assigned by  $v^0$  to transitive objects

#### versus...

- "ABSOLUTIVE" = not a Case at all; a descriptive term for the morphological realization shared by intransitive subjects and transitive objects in an ergative system
- For Legate (2008), ergative languages are divisible into two types (see also Aldridge 2004). What they share in common is that ergative is an inherent Case, but the nature of "absolutive" differs:

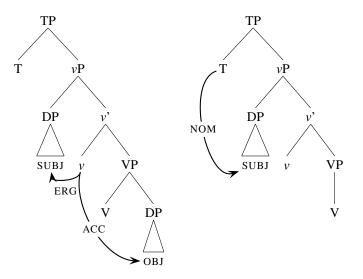
- 1. **ABS=NOM:** absolutive is just nominative—this had been a standard approach to ergative-absolutive systems; see e.g. Murasugi 1992; Bittner 1994; Bittner and Hale 1996; Ura 2001
  - $\circ$  Transitive  $v^0$  assigns ergative to the transitive subject in its specifier
  - o T<sup>0</sup> assigns Case (=nominative) to the intransitive subject;
  - Because the transitive subject receives inherent ergative, T<sup>0</sup> skips over it and licenses the transitive object (perhaps the object moves above the subject; not shown)

# (32) ABS=NOM



- 2. **ABS=DEF:** in *absolutive=default* languages, absolutive is a *morphological default* 
  - $\circ$  transitive objects receive structural accusative Case from  $v^0$
  - $\circ$  intransitive subjects receive structural nominative Case from  $\mathsf{T}^0$
  - the language spells out nominative and accusative via the same mechanism (often null)

# (33) ABS=DEF



- Sample vocabulary insertion in an ABS=DEF system:
  - $\circ \ \ \text{Erg Case} \leftrightarrow \text{-x}$
  - $\circ$  NOM Case  $\leftrightarrow$  -y
  - $\circ$  ACC Case  $\leftrightarrow$  -y

# • Question:

- o what different predictions do these systems make?
- o we'll see more of this in discussion of syntactic ergativity...

# **Further reading**

- Blake (1994) 'Case'
- Bobaljik and Wurmbrand (2008) 'Case in GP/Minimalism'
- Malchukov and Spencer (2011) 'Oxford Handbook of Case'
- Pesetsky and Torrego (2011) 'Case'
- Baker (2013) 'Agreement and case'

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