DEPENDENT CASE^{*}

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Two views of case: licensing and/or morphology? 1

- ► What we've told you so far about case:
 - ▷ Some languages have overt case marking: Russian, Latin, ...
 - ▷ Classic Chomsky/Vergnaud idea: English (and others) have it too, it's just (mostly) phonologically null. Why would we want this at all?
 - ▷ Case as a way to account for *licensing of nominals*. Case is the part of the grammar that tells us "if you're a DP, you can be here and here but not here".
 - ▷ Case is assigned to a DP by **dedicated lexical heads**:
 - \triangleright T_[+FIN] assigns NOM to its specifier
 - \triangleright V/v assigns ACC to its complement

(1) Ordinary case assignment:

 $[TP Magdiel T_{[+FIN]} [VP bought [DP new shoes]]]$

- $\,\triangleright\,\, T_{[-{\scriptscriptstyle \rm FIN}]}$ can't assign any case and that's why you can't have an ordinary subject in non-finite clauses...
- \triangleright Unless you can get that subject case-licensed elsely, like ECM (2)
- \triangleright ... Or unless that subject is PRO, which doesn't need Case (3)

Exceptional Case Marking (ECM): (2)

 $[_{\text{TP}} I [_{\text{VP}} believe [_{\text{TP}} them to_{_{\text{T}_{[-FIN]}}}] be the best candidate]]]$

- PRO doesn't need Case licensing: (3)[TP Imani wants [TP PRO to $T_{[-FIN]}$ win the lottery]]
 - ▷ If you're not assigned Case, you don't pass the Case Filter, and you cause disaster and terror.

^{*} Most of this hand-out is *heavily* based on slides by Suzana Fong.

- ► Traditional Minimalist model (Chomsky 2000, 2001): Case and Agree are two facets of the same phenomenon (will become relevant later)
 - ▷ Finite T agrees with subject AND assigns it case
 - \triangleright v assigns case to the object... and agrees with it, but in English it's null
- ► Easy to forget if you look at English, easier to remember if you look at Russian, but: case is also a **morphological phenomenon**.
 - ▷ What morphological material a DP surfaces with depending on its larger syntactic environment.
- ► Does Case morphology correlate with/map onto nominal licensing?
 - ▷ Traditional Chomsky/Vergnaud answer: yes!
 - ▷ Because they are the same thing. Case morphology *is* nominal licensing.
 - ▷ Today's answer: **no**!
 - ▷ They're two different systems altogether, and shouldn't be reconciled.
 - ▷ We'll poke at corners of grammars where the two come hopelessly apart
 - ▷ If they are two different things, you need two theories: one of morphological case, and one of licensing
- ► **Dependent case**: a theory of *morphological case*
 - ▷ Doesn't account for nominal licensing, *by design*:
 - ▷ There are phenomena where nominal licensing and morphological case come apart, so you *don't* want them to be handled by the same system
 - ▷ How do Dependent case people handle nominal licensing?
 - \triangleright Not today's problem!
- ► Today's game: we'll contrast two theories
 - \triangleright Case-as-licensing (CaL): the traditional view, where Case is the signal of nominal licensing, and is assigned by dedicated functional heads (by Agree)¹
 - ▷ **Dependent case (DepC)**: a configurational theory of case assignment, that explicitly says morphological case has nothing to do with nominal licensing

2 Dependent case: bird-eye overview

- ▶ ... A configurational theory of case assignment. What does this mean?
- ► Case is *not* assigned by dedicated functional heads.

¹ In theory, these two things don't need to go together. You could imagine a theory where morphological case is *not* the same as nominal licensing, it's its own thing, but it's still assigned by dedicated functional heads via Agree instead of by the DepC algorithm. Not for today. See **barany.sheehan2022**.

- ▶ Rather, it's a function of the relationship between DPs within a syntactic domain.
 - ▷ A DP's case doesn't depend on what head it's close to, but on *the presence/ absence of other DPs in its domain.*

(4) Case assignment algorithm:

- 1. Assign idiosyncratic lexical/inherent cases.
- 2. Case Competition. For every two as-of-yet caseless DPs in a given domain, if DP1 c-commands DP2, assign **dependent case** ...
 - (a) ... to DP1: "upward dependent case" (ERG), or
 - (b) ... to DP2: "downward dependent case" (ACC)
- 3. If a DP still was not assigned case in the previous two steps, then assign it **unmarked case** (ABS or NOM).
- ► A couple notes:
 - The DPs in the smallest domain that have not been assigned any case are said to be case competitors.
 - \triangleright For convenience, I am glossing over *v*P/VP (a potential domain of case assignment) and the VP-internal subject hypothesis.

2.1 PRACTICAL ILLUSTRATION

(5) Step 1: assign idiosyncratic lexical/inherent cases ABL ex silv- \bar{s} (Latin) PREP forest-ABL.PL 'From/out of the woods'

 \triangleright Also applies to verbs that assign a particular case to their objects, etc.

(6) **Step 2**: **Dependent case**, assigned by **Case Competition**. Domain: here, TP_[+FIN]

 $\begin{bmatrix} TP & DP1_{[Case: _]} & T_{[+FIN]} & V & DP2_{[Case: _]} \end{bmatrix}$

- a. Assign dependent case **downward**, to DP2: (NOM/ACC languages) $\begin{bmatrix} TP & [Magdiel]_{[Case: _]} & T_{[+FIN]} & bought & [new shoes]_{[Case: ACC]} \end{bmatrix}$
- b. Or: assign dependent case **upward**, to DP1: (ERG/ABS languages) $\begin{bmatrix} TP & [Magdiel]_{[Case: ERG]} & T_{[+FIN]} & bought & [new shoes]_{[Case: _]} \end{bmatrix}$

- (7) Step 3: assign unmarked case to the remaining DPs. ("fill in the gaps")
 a. [TP [Magdiel][Case: NOM] T[+FIN] bought [new shoes][Case: ACC]]
 b. [TP [Magdiel][Case: ERG] T[+FIN] bought [new shoes][Case: ABS]]
- ▶ What happens with ECM? Remember our case competition domain was *finite* TPs
- ► Since the lower non-finite TP doesn't count as a boundary, there's still case competition between the matrix subject and the embedded one, and that one gets assigned dependent case
- (8) $[\operatorname{TP} I \text{ believe } [\operatorname{TP} them to_{T_{[-FIN]}} be the best candidate]] \xrightarrow{\circ} \operatorname{Acc}$

2.2 INTERIM SUMMARY: CAL VS DEPC

- ► Case-as-Licensing: case is both responsible for licensing DPs *and* it's what gets spelled out as morphological case
 - ▷ Case Filter: if a DP does not get assigned case by a dedicated functional head, the derivation crashes
- Dependent Case: case is *only* the morphology that a DP appears with, depending on the syntactic configuration it's in, and, crucially, the presence/absence of other case competitors
 - ▷ Case is *not* responsible for licensing

3 A problem for CaL: Icelandic nom objects

3.1 Description of the data

- Certain verbs idiosyncratically assign **lexical DAT** to their **subject**:
- (9) *henni* / *hún leiðist bók-in sín she.DAT she.NOM bores book-DEF.NOM.SG self's 'She finds her (own) book boring.'
- Correlated property: the **object** is **NOM**, and is **agreed with** by the verb
- (10) Jóni *líkað-i / líkuð-u [þess-ir sokk-ar]_O
 Jón.DAT liked-3sg liked-3PL these-NOM.PL socks-NOM.PL
 'Jón liked these socks'
 - ▷ Traditional CaL view: good! We keep a correlation between NOM case and agreement with finite T.
 - \triangleright Me pointing this out should be an omen of warning

- ► Wait a minute: how do we know that the DAT argument is really the subject, when it's not nominative and the verb doesn't agree with it?
 - \triangleright Raising and control target subjects.
 - ▷ The DAT argument of *leiðast* is targeted by raising and control.
- (11) Raising:

henni_i virðist [$__i$ hafa leiðst bókin] she.DAT seems have bored book.DEF.NOM.SG 'She seems to have found the book boring.'

(12) Control:

 $h\acute{u}n_i$ vonast til [$a\delta$ PRO_i lei δ ast ekki b δ kin] she.NOM hopes PREP to PRO_{DAT} bore.INF not book.DEF.NOM.SG 'She hopes not to find the book boring.'

3.2 Two different accounts

- ► How to account for the DAT/NOM pattern in (13)=(9)?
- (13) *henni leiðist bókin sín* she.DAT bores book.DEF.NOM.SG self's 'She finds her (own) book boring.'

NOM

► CaL: finite T in Icelandic might be exceptionally able to assign NOM to an object; after all, it agrees with it too

(14) [TP she
$$T_{[+FIN]}$$
 bores [book self's]]

- **DepC**: remember that NOM is *unmarked case*. Let's go through the algorithm:
 - ▷ Step 1: lexical/inherent case. This particular verb assigns DAT to its subject:

(15)
$$[\operatorname{TP} she T_{[+FIN]} bores [book self's]_{[Case:]]}$$

▷ Step 2: case competition? We only have one DP that's caseless, so no. Dependent case is not assigned.

 \triangleright So far this explains why the object is not ACC

- Step 3: assign unmarked case. We have one DP that's still caseless, so we assign it unmarked case = NOM:
- (16) $[_{\text{TP}} she.\text{DAT} T_{[+FIN]} bores [book self's]_{[Case: NOM]}]$

3.3 **Testing the predictions**

- ► So far: DepC and CaL seem equivalent, but propose very different sources for NOM:
 - \triangleright CaL: finite T (via Agree).
 - \triangleright DepC: unmarked case.
- ► How do we test who's right? **Predictions**. What would happen to the object of *leiðast* in a **non-finite** environment (an embedded TP)?
 - ▷ CaL: no agreement with T, because it's non-finite, so no nominative.
 - ▷ **DepC**: as long as there is no case competitor, **should be nominative**.
- (17) Ég tel [henni hafa leiðst bókin]
 I believe.1sg she.DAT have bored book.DEF.NOM.SG
 'I believe her to have found the book boring.'
 - ► CaL struggles here: the object is still nominative even without agreement with T
 - DepC: if we assume slightly different case competition domains than English, this works just fine.
 - ▷ Say that all TPs in Icelandic are a domain for case competition, both finite and non-finite
 - ▷ Case assignment works cyclically and bottom up (from smaller to larger domains); for every domain, do the algorithm.
 - **Domain 1**: embedded TP. **Domain 2**: matrix TP. Derivation step by step:
- (18) Starting point: no case anywhere I_[Case:] believe.1sg [she_[Case:]] have bored the.book_[Case:]]

(19) **Domain 1**:

a. Step 1: assign inherent case

 $I_{[Case: _]}$ believe.1sg [she [Case: DAT] have bored the.book[Case: _]]

- b. Step 2: no case competition *within this domain* = no dependent case.
- c. Step 3: unmarked case to the one caseless DP left. I_[Case: _] believe.1sg [she_[Case: DAT] have bored the.book_[Case: NOM]]
- (20) **Domain 2**:
 - a. Step 1: no inherent case to assign
 - b. Step 2: only one caseless DP = no case competition = no dependent case
 - c. Step 3: the only caseless DP left gets unmarked case I_[Case: NOM] believe.1sg [she_[Case: DAT] have bored the.book_[Case: NOM]]

- ► Making sure: can our step-by-step algorithm handle the basic NOM/ACC pattern? Yes, in the same way.
- (21) a. *Hún sá myndina sína.* she.NOM saw **the.picture.Acc** self's.Acc 'She saw her (own) picture.'
 - b. Ég tel [hana hafa séð myndina]
 I believe.1sg she.Acc have seen the.picture.Acc
 'I believe her to have seen the picture.'
 - Exercise: do the step by step derivation of (21b).

4 Erg and Acc: dependent cases

4.1 A NATURAL CLASS?

- ▶ We've been grouping together ERG and ACC as kinda two versions of the same thing:
 - ▷ You have DP1 c-commanding DP2: either you mark the lower one (= ACC) or you mark the higher one (= ERG).
- ► Other than being neat, does this actually hold?
- Let's remember Burzio's generalization: if you don't assign a θ-role to a subject, you can't assign ACC
- (22) a. *Charlie pet the dog*
 - b. *The dog was pet*
 - c. * It was petted the dog
- (23) a. The student arrived
 - b. * It arrived the student
 - We can have a similar generalization about ERG: if you don't assign a θ-role to an object, you can't have ERG.
- (24) Hindi: ERG/ABS alignment in perfective aspect
 - a. *Raam-ne RoTii khaayii thii* Ram.M-ERG bread.F.ABS eat.PERF.F be.PST.F 'Ram had eaten bread'
 - b. Siita(*-ne) aayii
 Sita.F-ERG arrived.PERF.F
 'Sita arrived'
 - ▶ It seems that both ACC and ERG are *dependent* on the presence of another argument.

4.2 Dissociating agents and ergative

- ► Influential proposal about ergative case in a case-by-dedicated-heads theory: it's always inherent case, assigned by v_{AGENT} to its specifier
- ► It makes sense: you get ERG on transitive subjects, which presumably (?) are introduced in a position different from that of intransitive subjects
- ► Two different proposals side by side:
 - \triangleright Dedicated heads: " v_{AGENT} assigns inherent ERG to its specifier"
 - ▷ **Pure DepC**: "if you have DP1 c-commanding DP2, assign ERG to DP1"
- ► How to tell these apart?
- ► We'd need a situation where we have two DPs, one c-commanding the other, but none of these are in spec, *v*P_{AGENT} = none of these are the external arguments
 - ▷ We'd also want to avoid ditransitive structures, to avoid complications
- ► Can we have this? Yes! Applicatives of unaccusatives (Baker 2014, Deal 2019)
 - ▷ **Unaccusatives**: only one argument, and it's internal.
 - ▷ **Applicatives**: add one argument, but it's not the external argument.
- ► Nez Perce: tripartite system.
 - ▷ Subjects of intransitives: NOM
 - ▷ Subjects of transitive verbs: ERG
 - ▷ Objects of transitive verbs: ACC
- (25) Angel-Ø hi-pnip-se Angel-NOM 3SBJ-sleep-IMPERF 'Angel is sleeping'
- (26) Angel-**nim** hi-naas-wapayata-ca ma-may'as-**na** Angel-**ERG** 3SBJ-PL.OBJ-help-IMPERF PL-child-ACC 'Angel is helping the children'
 - ► Identifying unaccusatives: they form a passive participle-ish; unergatives can't.
- (27) pro lilooy-nin' / *tiy'-iin' wee-s
 2sg be.happy-PART laugh-PART be-PREs
 'You are happy / *laughed'
- (28) pro hii-we-s paay-nin' / *kuu-yiin'
 3sg 3sBJ-be-PRES come-PART go-PART
 'He is come / *gone'

- ► Verbs with three arguments:
 - ▷ Goal higher than theme. Acc only on goal, and unmarked case (NOM) on theme.
- (29) 'aayat-onm pe-'eny-Ø-e haacwal-a tam'aamiin-Ø woman-ERG 3/3-give-PERF-REM.PST boy-ACC cake.NOM 'The lady gave the boy cake'
 - \triangleright Think for yourself: how to account for these with DepC?
 - ► Applicatives: add one argument, lower than external argument and higher than internal argument.
- (30) Applicative on unergative \implies 2-place predicate:
 - a. *Kit'ic-***Ø** *hi-wii-qa-na* Kit'ic.NOM 3sBJ-cry-HAB.PAST-REM.PAST 'Kit'ic used to meow'
 - b. *Kit'ic-nim pee-wii-nuu-qa-na Besi-ne* Kit'ic-ERG 3/3-cry-APPL-HAB.PAST-REM.PAST Bessie-ACC 'Kit'ic used to meow at Bessie'
- (31) Applicative on transitive \implies 3-place predicate:
 - a. *pro paa-'nahpayk-Ø-a Fido-ne* 3sg.(**erg**) 3/3-bring-perf-rem.past Fido-**acc** 'She brought Fido'
 - b. *Pit'in-im ha-'ayato-na hi-naac-'nahpayk-oo-Ø-ya Fido-Ø* girl-ERG PL-WOMAN-ACC 3SBJ-PL.OBJ-bring-APPL-PERF-REM.PAST Fido.NOM 'The girl brought Fido to the women'



- ▶ Unergatives: same thing, but no complement of VP
- ► Applicatives of unaccusatives: What do our theories predict?
 - \triangleright Ergative as inherent case: the applied argument shouldn't count at all. Ergative is assigned by v to the argument in its specifier. In an applicativized unaccusative, there's no such thing, so, no ergative.
 - Ergative as dependent case: ergative is assigned to the higher of two DPs in a given domain. Applicatives might create such a configuration, so, possibly yes ergative.
- ► Applicatives of unaccusatives: What do we find?
 - ▷ The original theme becomes ergative, the applied argument is <u>accusative</u> (free word order)
- (33) *Taamsas-nim* pee-'leese-nuu-Ø-ye <u>Harold-ne</u> Taamsas-ERG 3/3-make.noise-APPL-PERF-REM.PAST <u>Harold-Acc</u> 'Taamsas made noise at <u>Harold</u>'
- (34) Angel-na pa-pay-noo-Ø-ya sik'eem-nim Angel-ACC 3/3-come-APPL-PERF-PAST.REM horse-ERG 'The horse came to Angel'

► ... Kinda surprising. There's arguments from agreement and condition C to say that the theme does move across the applied argument (not reproduced here):



- ► If this movement really does happen (and we have good reasons to believe that it does), this creates precisely the configuration we were looking for:
- DP1 c-commanding DP2; *neither* is in spec, vP_{AGENT} .
- ► Remember our predictions:
 - \triangleright Ergative as inherent case: the applied argument shouldn't count at all. Ergative is assigned by v to the argument in its specifier. In an applicativized unaccusative, there's no such thing, so, no ergative.
 - Ergative as dependent case: ergative is assigned to the higher of two DPs in a given domain. Applicatives might create such a configuration, so, possibly yes ergative.
- DepC has the right predictions. The theme, despite not being an external argument, raises to a position where it couldn't possibly be assigned an agentive θ-role, but it c-commands another DP = triggers upward dependent case.

4.3 KORYAK: NEAT DEPENDENT CASE

- ► Another clear example where for a DP to have ERG, it just needs to c-command another DP.
- Certain verbs can either assign lexical case (DAT) to their objects, or they can also not do that:
- (36) *kajŋ-a* Ø*-peŋŋ-ə-nen ?əlve-***?əl** bear-**ERG** 3.SBJ-attack-EP-3SG.A>3.0 wild.reindeer-**ABS.SG** 'The bear attacked the wild reindeer'
- (37) kajŋ-ə-n Ø-peŋŋ-e ?əlva-ŋ bear-EP-ABS.SG 3.SBJ-attack-AOR wild.reindeer-DAT 'The bear attacked the wild reindeer'
- (38) * *kajŋ-a* Ø-peŋŋ-ə-nen ?əlva-ŋ bear-ERG 3.SBJ-attack-EP-3SG.A>3.0 wild.reindeer-DAT
 - ► If you don't assign lexical case:
 - ▷ Case competition: upward dependent case, subject gets ERG
 - ▷ Object is left caseless: unmarked case = ABS
 - ► If you *do* assign lexical case:
 - ▷ Object gets DAT
 - ▷ No case competition = no ERG on subject
 - ▷ Subject is left caseless: unmarked case = ABS
 - ▶ (38) can't be generated: to get ERG, you need a c-commanded caseless DP.
 - ► Same argument can be done with **incorporation**:
 - ▷ If you have a full object DP, you get ERG/ABS (39a)
 - ▷ If you incorporate the object, the subject must be ABS and not ERG (39b)
- (39) a. *jejyutcewŋəl?-ə-jək na-ko-jəlŋ-ə-ŋ-na-w kali-w* student-EP-**NSG.ERG** INV-PRS-read-EP-PRS-3.0-3PL book-**ABS.PL** 'The students are reading books'
 - b. *jejyutcewŋəl?-u* Ø-ko-kale-jəlŋ-al-la-ŋ-Ø
 student-ABS.PL 3.SBJ-PRS-book-read-VBLZ-PL-PRS-3.SBJ
 'The students are reading books'

- ► Even more excitingly: *wh*-movement triggers case competition, in a successive-cyclic way (Abramovitz 2020).
 - ▷ Disclaimer: Rafael's analysis is actually more complex, with the wh-word moving through every intermediate phase boundary, so every spec, vP and every spec, CP. I present a rather simplified version that keeps the spirit of the story intact.
- Successive cyclicity: movement proceeds through every landing site, not in one go:
- (40) [CP Who did Bill hear [CP ___ that Mary said [CP ___ that John saw __]]]?
 - ► As you can imagine, this might *do things* to our case competition domains, and wreak some havoc.
 - ► To check this, you need wh-fronting. Koryak has wh-fronting.
 - ► If a verb has a clausal object, that doesn't count as a case competitor: the subject takes absolutive (41)
 - Schematized in (42): to get case competition you need two DPs, not just a DP and something else.
- (41) yəmmo t-ə-valom-ə-k [CP əno ?ewŋəto-na-k
 1sG.ABS 1sG.SBJ-EP-hear-EP-1sG.SBJ that Hewngyto-OBL.SG-ERG
 Ø-j-ə-tcim-aw-nin kojŋ-o]
 3.SBJ-CS-EP-break-VBLZ-3SG.A>3.0 cup-ABS.PL
 'I heard that Hewngyto broke cups'
- (42) I_{ABS} heard [OBJ=CP] that $Hewngyto_{ERG}$ broke $cups_{ABS}]$
 - What happens with long-distance wh-extraction? Different predictions depending on how the movement goes.
 - ► If the wh-word moves in one fell swoop: (43)
 - ▷ It starts off as caseless: case-competition with embedded subject, which ccommands it, so it gets ergative.
 - ▷ The wh-word is still caseless. It moves right to the matrix spec,CP: triggers case competition with matrix subject, which *it c-commands*; therefore, the wh-word should get ergative and the subject absolutive
- (43) What_{ERG} you_{ABS} heard [$_{OBJ=CP}$ that Hewngyto_{ERG} broke $\stackrel{|}{\leftarrow}$]

- ▶ If the wh-word indeed does stop over at every intermediate landing site: (44)
 - ▷ It starts off as caseless: case-competition with embedded subject, which ccommands it, so it gets ergative.
 - ▷ Then it moves to the embedded spec, CP. Here, it's c-commanded by the matrix subject, and it's local enough to it that it triggers case competition. Therefore, the matrix subject gets **ergative**, not absolutive.
 - ▷ Then, it moves further to the matrix spec, CP. At this point, the matrix subject is not caseless (it's ergative), so it doesn't count as a case competitor. The wh-word remains caseless = unmarked case = absolutive.
- (44) What_{ABS} you_{ERG} heard $[CP \xrightarrow{\gamma}$ that Hewngyto_{ERG} broke $\xrightarrow{\gamma}$]
 - ► So what's right then? (44). The wh-word moves successive cyclically and triggers dependent case at every step.
- (45) $jej-u_i$ { $y \ge nan$ / * $y \ge tctci$ } $\oslash -valom-na-w$ [$_{CP}$ — $_i$ $\ge no$ what-ABS.PL 2SG-ERG 2SG.ABS 2.SBJ-hear-3.O-3PL that ? $ewn \ge to-na-k$ $\oslash -j- \ge -tcim-aw-nin$ — $_i$] Hewngyto-OBL.SG-ERG 3.SBJ-CS-EP-break-VBLZ-3SG.A>3.O 'What all did you hear that Hewngyto broke?'

5 TAKING STOCK

- ► A different theory of case, divorcing morphological case form nominal licensing.
- ► Dissociation between case and licensing:
 - Objects can be nominative even when the verb doesn't agree with them (Icelandic) = impossible in a CaL world.
 - ▷ Do we still need nominal licensing? Probably, possibly, but case is not that
- ► Why are ERG and ACC grouped together?
 - \triangleright They are *dependent* on the presence of another DP.
 - ▷ They are *not* connected to theta-roles: you can get the morphology even in the "wrong" structural positions, as long as the right conditions are created.
- Do we need both DepC and (morphological) case assigned by functional heads via Agree? Some say yes, some say no...
 - ▷ We'd need to see both phenomena that Case-by-Agree can't account for (e.g., applicatives of unaccusatives), *and* phenomena that DepC can't account for