

Theoretical and psycholinguistic approaches to case and word order

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Introduction: Theoretical approaches to case

1 Exercises

1. What is Burzio's generalization?
2. Name two differences between structural and inherent cases
3. Which head in the clausal spine is standardly assumed to assign accusative case?
4. What does the following paradigm tell us about the nature of the object cases?

- (1) a. Ich frage ihn einen Mist.
I.NOM ask him a.ACC rubbish.ACC
b. Er wurde einen Mist gefragt.
he.NOM was a.ACC rubbish.ACC asked
c. *Ein Mist wurde ihn gefragt.
a.NOM rubbish.NOM was him asked

5. What is special about the case-marking pattern in (2)

- (2) a. Angel hi-pnim-se.
Angel.CASE 3SUBJ-sleep-IPFV
'Angel is sleeping.'
b. Angel-nim hi-naas-wapayata-ca ma-may'as-na.
Angel.CASE 3SUBJ-PL.OBJ-help-IPFV PL-child-CASE
'Angel is helping the children.'

Nez Perce

6. What is special about the case markings in the following example (the subscripts of the verbs indicate the case they govern)?

- (3) a. mne:moneúete_{gen} toû lógou hoû
remember.2PL.PRS.IPFV the.M.SG.GEN word.M.SG.GEN which.M.SG.GEN
egò: eîpon_{acc} humîn
I.SG.NOM say.1SG.AOR you.PL.DAT
'Remember that word which I said to you.'

New Testament Greek (Kirk 2012: 202)

- b. Urbem quam statuo_{acc} vestra est
city.ACC which.ACC build.1SG yours is
'The city I build is yours.'

Latin

7. What argues against treating nominative case as the driving force for movement to SpecTP?
 8. What is special about the case-marking pattern in (4) (from Müller 2009: 281)

- (4) a. Jon-Ø etorri da
 Jon-CASE come:PTCP.PRF be:3.SG.INTR
 'Jon came.'
 b. Jon-ek saltatu du
 Jon-CASE jump:PTCP.PRF have:3SG.TR
 'John jumped.'
 c. Jon-ek ardo-a-Ø ekarri du
 Jon-CASE wine-DET-CASE bring:PTCP.PRF have.3SG.TR
 'Jon brought the wine'

9. How can one determine the base order of two objects (e.g. indirect and direct) in a language with free word order?
 10. It is traditionally assumed that NPs receive case from designated functional heads (e.g. subjects always from T). Why is the following pair remarkable in this respect (note that both sentences are transitive)?

- (5) a. mä t'əkäjəylämnä ula mənɣäləm
 we.DL(NOM) younger.sister.COM berry pick.PST.1PS
 'I went to pick berries with my younger sister.'
 b. mə-ŋən ləɣə əllə juɣ kanɲa aməɣalɔɣ
 we-ERG them large tree beside put.PST.3PO/1PS
 'We put them (pots of berries) beside a big tree.'

Ostyak

11. In many languages, specific and non-specific objects occupy different structural positions: non-specific/existential indefinites remain within VP, while specific indefinites move to SpecvP; Suppose that a specific and non-specific indefinite are coordinated, which principle may stand in the way?
 12. What is remarkable about the case-marking in the following examples? Try to provide an account within the Agree model. Which difficulties arise?

- (6) a. Cheli-hanthey-ka ton-i isse.
 C.-**DAT-NOM** money-NOM have
 'Cheli has money.'
 b. Sensayng-nim-tul-kkeyse-man-i kulen il-ul hasipnita.
 teacher-HON-PL-H.**NOM**-only-**NOM** that.kind work-ACC do
 'Only teachers do such work.'

13. Can you think of a language that has a rich case system but fixed word order?
 14. Which locality property do PPs and dative objects share in many languages (e.g. in German)?

2 Morphological vs. abstract case

- abstract case:
 - Case assigned in syntax to DPs
- morphological case: morphological expression of abstract case features
 - does not always faithfully reflect abstract case features: lack of case marking as in English, syncretism (underspecification)

- (7) a. Die Frau/der Mann singt
the.NOM woman/the.NOM man sings
'The woman/the man sings.'
- b. Ich sehe die Frau/den Mann.
I see the.ACC woman/the.ACC man
'I see the woman/the man.'

→ differences in surface case are therefore not necessarily indicative of a different syntactic status (cf. differential argument encoding, ergative splits)!

3 Case theory and Case filter

- first proposed in the GB-period (Chomsky 1981)
- as a solution to the puzzling distribution of overt NP subjects in infinitival clauses:

(8) a. Leo decided [(**Lina/himself*) to leave.]
b. Leo believed [Lina to be genius].
c. Leo decided [for Lina to leave.]
d. For Leo to win would be great.
e. **Leo to win would be great.*

(9) Case filter
**NP* if NP has phonetic content and has no case (Chomsky 1981: 49)
- Given the case filter, the distribution in (8) can now be deduced from independently motivated rules of case assignment:

(10) Case assignment in English

 - subject of tensed clause: nominative
 - object of verb: accusative
 - object of preposition: accusative (or oblique)
- overt NPs are consequently excluded as subjects of non-finite clauses – unless the matrix verb assigns accusative case to them (ECM-verbs like *believe*, but not control verbs like *decide*, a difference often recast as a difference in the size of the complement: TP vs. CP)

- in the early GB-time, case assignment was taken to be the driving force for A-movement (raising, passive, unaccusatives and, with the advent of the VP-internal subject hypothesis, also for transitive/unergative subjects of finite clauses):

- (11) a. Lina₁ was kissed __₁.
 b. Lina₁ seems __₁ to like John.
 c. Lina₁ fell __₁.
 d. Lina₁ will __₁ kiss John.

- case assignment in the early days took place under either
 - government (c-command + minimality): accusative case (V to the object)
 - spec-head agreement (m-command): nominative case (T to the subject)
- more recently, case was given up as the trigger for movement to SpecTP because
 - in expletive constructions, subjects can stay low in English:

(12) There is a unicorn in the garden.

- in many languages, subjects can remain in situ (cf. German)
- in other languages (e.g. Icelandic, cf. Zaenen et al. 1985), non-nominative arguments (so-called dative or quirky subjects) obligatorily move to the subject position (and behave like subjects: control PRO, undergo raising to object [which oblique objects cannot] etc.)

(13) a. Guðrún saknar Haraldar.
 Gudrun.NOM misses Harold.GEN
 ‘Gudrun misses Harold.’

b. Ég taldi Guðrúnu í barnaskap mínum sakna Haraldar.
 I believed Gudrun.ACC in foolishness my miss.INF Harold.GEN
 ‘In my foolishness, I believed Gudrun to miss Harold.’

(14) a. Henni hefur alltaf þott Ólafur leiðinlegur.
 her.DAT has always thought Olaf.NOM boring.NOM
 ‘She has always found Olaf boring.’

b. Ég tel henni hafa alltaf þott Ólafur leiðinlegur.
 I believe her.DAT have.INF always thought Olaf.NOM boring.NOM
 ‘I believe her to have always found Olaf boring.’

→ quirky subjects also show that case and grammatical relation are not directly related

* ideally, grammatical function is only configurationally defined

- instead, the EPP has been regarded as the driving force for movement to SpecTP, which holds in some but not all languages (at least not obligatorily)
- case assignment in early Minimalism: both nominative and accusative assigned/checked under spec-head in AgrOP and AgrSP
- case assignment in more recent minimalism (Chomsky 2000 et seq.)
 - case is assigned/valued under c-command (and subject to minimality)
 - case is assigned/valued by functional heads only (v,T)
- modern case filters: [uCase] on DP must be checked/valued by a c-commanding probe

4 Structural vs. inherent case

- structural case
 - assigned to a particular structural position (c-command domain of a given head), irrespective of theta-role, cf. ECM
 - (15) a. He left.
 - b. I saw him leave.
 - compatible with various theta-roles:
 - (16) a. He fell. unaccusative → theme
 - b. He laughed. unergative → agent
 - structural case is (normally, but see Ukrainian below) absorbed in passive: Acc → Nom (but cf. the get-passive: *Ich bekam geholfen*)
 - (17) a. Ich lobte ihn.
I praised him
'I praised him.'
 - b. Er wurde (von mir) gelobt.
he became by me praised
'He was praised by me.'
 - standardly assumed to be assigned by v/T
- inherent/lexical case:
 - a property of certain verbs, not predictable (cf. genitive in German), often tied to a particular theta-role (goal, beneficiary)
 - not absorbed in the passive:
 - (18) a. Ich half dem Peter.
I helped the.DAT Peter
'I helped Peter.'
 - b. Dem Peter wurde (von mir) geholfen.
the.DAT Peter became by me helped
'Peter was helped by me.'
 - assigned by lexical categories, e.g. V
 - sometimes, a difference is made between completely unpredictable oblique cases (e.g. genitive in German) and more predictable oblique cases like dative, which appear regularly with ditransitives but are not absorbed in the passive (Woolford 2006)

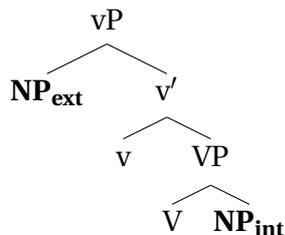
5 Activity Condition

- DPs are visible for (Case-)Agree only if they have unvalued case-features (cf. Chomsky 2000)
- potentially problematic constructions
 - case attraction, cf. above (overwriting?)
 - (19) andres axioi tēs eleutheriēs hēs [hēn] kektēsthe
men.NOM worthy.NOM the.GEN liberty.GEN which.GEN [which.ACC] possess.2PL
'Men worthy of liberty which you possess' *Ancient Greek*
 - case stacking
 - (20) Ngayu nhawu-lha [ngurnu tharnta-a [mirtily-marta-a [thara-ngka-marta-a]]]
1SG.NOM see-PST the[ACC] Euro-ACC Joey-PROP-ACC pouch-LOC-PROP-ACC
'I saw that euro (hill kangaroo) with a joey (offspring) in (its) pouch.'
Martuthumira, Corbett (2006: 135)

6 Argument encoding: alignment patterns

There are four basic argument types (looking at intransitive and transitive verbs):

- | | |
|---|----------------|
| 1. external argument of an intransitive (unergative) verb | NP_{ext-V_i} |
| 2. internal argument of an intransitive (unaccusative) verb | NP_{int-V_i} |
| 3. external argument of a transitive verb | NP_{ext-V_t} |
| 4. internal argument of a transitive verb | NP_{int-V_t} |



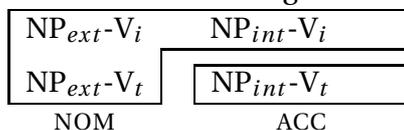
Labels used in the typological literature:

- **S**-argument: *sole* argument of a V_i
 - **A**-argument: external argument of a V_t ('agent')
 - **P/O**-argument: internal argument of a V_t ('patient')
- Alignment patterns (see e.g. Comrie 1989; Dixon 1994; Plank 1995; Bickel and Nichols 2005)
 1. (nominative-) **accusative** alignment
 2. **ergative**(-absolutive) alignment
 3. **neutral** alignment
 4. **tripartite** / three-way alignment
 5. **active** alignment
 6. **A=O**-alignment

6.1 Accusative alignment

1. The sole argument of an intransitive verb is encoded like the external argument of a transitive verb, and
2. the internal argument of a transitive verb is encoded differently.
3. $[NP_{ext/int-V_i} = NP_{ext-V_t}] \neq NP_{int-V_t}$
 $[S = A] \neq P$

(21) Case: accusative alignment:



- The “special” case of the internal argument of V_t is called *accusative*.
- The case for all other arguments is called *nominative*.
- Cross-linguistically, the nominative is usually morphologically less complex than the accusative – very often (but not always) zero vs. overt.

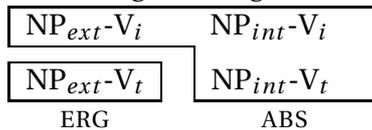
(22) Latvian nouns: Mathiassen (1997)

- a. Putn-s lidoja.
 bird-CASE fly.PST.3
 ‘The bird was flying.’
- b. Bērn-s zīmē sun-i.
 child-CASE draw.PRES.3 dog-CASE
 ‘The child is drawing a dog.’

6.2 Ergative alignment

1. The sole argument of an intransitive verb is encoded like the internal argument of a transitive verb, and
2. the external argument of a transitive verb is encoded differently.
3. $[NP_{ext/int}-V_i = NP_{int}-V_t] \neq NP_{ext}-V_t$
 $[S = P] \neq A$

(23) Case: ergative alignment:



- The “special” case of the external argument of V_t is called *ergative*.
- The case for all other arguments is called *absolutive* (and sometimes also *nominative*).
- Cross-linguistically, the absolutive is usually morphologically less complex than the ergative – very often zero vs. overt.

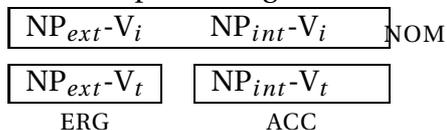
(24) *Hunzib nouns (Nakh-Daghestan, van den Berg 1995:*

- a. kid y-ut’-ur
 girl CL2-sleep-PST
 ‘The girl slept.’ $NP-V_i$
- b. oždi-l kid hehe-r
 boy-CASE girl hit-PST
 ‘The boy hit the girl.’ $NP_{int}-V_t$

6.3 Tripartite alignment

1. The sole argument of an intransitive verb is encoded differently from the external argument of a transitive verb, and also differently from the internal argument of a transitive verb, and
2. the external and the internal argument of a transitive verb are encoded differently.
3. $NP_{ext/int}-V_i \neq NP_{ext}-V_t \neq NP_{int}-V_t$
 $S \neq A \neq P$

(25) Case: tripartite alignment:



- The “special” case of the int. arg. of V_t is often called *accusative*.
- The “special” case of the ext. arg. of V_t is often called *ergative*.
- The case of the sole argument of V_i is called *nominative*.

(26) Nepali nominal elements (Indo-European, Bickel and Nichols 2009):

- a. ma ga-ẽ
 1SG go-1SG.PST
 ‘I went.’
- b. mai-le Ram-lai dekh-ẽ
 1SG-CASE Ram-CASE see-1SG.PST
 ‘I saw Ram.’

6.4 Active alignment (Split-S)

Arguments are grouped according to their “agent-hood”/“patient-hood”:

1. The sole argument of an unergative verb is encoded like the external argument of a transitive verb, and
2. the sole argument of an unaccusative verb is encoded like the internal argument of a transitive verb.
3. $[NP_{ext-V_i} = NP_{ext-V_t}] \neq [NP_{int-V_i} = NP_{int-V_t}] / [S_A = A] \neq [S_P = P]$

(27) Case: active alignment:

NP _{ext} -V _i	NP _{int} -V _i
NP _{ext} -V _t	NP _{int} -V _t
NOM/ERG	ABS/ACC

- Case labels depend on which of the two groups is overtly marked:
 - ergative-active: agent arguments are overtly marked (ergative), patient arguments are zero (absolutive)
 - accusative-active: agent arguments are zero marked (nominative), patient arguments are overtly marked (accusative)

(28) Georgian (Harris 1981):

- a. vaxt'ang-i ekim-i iqo
Vakhtang-CASE doctor-CASE be.AOR.3SG
“Vakhtang was a doctor.” *unaccusative*
- b. nino-m daamtknara
Nino-CASE yawn.AOR.3SG
“Nino yawned.” *unergative*
- c. nino-m ačvena surat-eb-i gia-s
Nino-CASE show.AOR.3SG>3SG>3SG picture-PL-CASE Gia-DAT
“Nino showed the pictures to Gia.”

7 Case splits/differential argument marking

- major question: does the difference in case-marking entail a difference in the syntax (Baker 2015) or not (Kalin and Weisser 2017), i.e., is it perhaps just a morphological phenomenon?

7.1 Differential object marking

- case-marking depends on inherent features of the nominal, e.g. specificity, animacy, cf. Turkish, Hindi, Spanish, Romanian etc. (Baker 2015: 4f.)
- in some languages, the difference in case marking goes along with a difference in structural position (cf. also the position of indef. vs. def DPs in German)

- (29)
- a. Masha turgennik salamaat-(y) sie-te
Masha quickly porridge-(ACC) eat-PST-3SS
‘Masah ate porridge quickly’ (-y only under contrast. focus)
 - b. *Masha salamaat turgennik sie-te
Masah porridge quickly eat-PST-3SS
 - c. Masha salamaat-y turgennik sie-te
Masah porridge-ACC quickly eat-PST-3SS
‘Masha ate the porridge quickly’ *Sakha*

7.2 Split ergativity

- Languages are usually not completely ergative
 - nouns (erg-abs) vs. pronouns (nom-acc): Dyrbal
 - clause-type
 - tense-aspect split:

- (30) a. Raam toTii khaataa thaa
 Ram.M.NOM bread.FEM.ACC eat.IPFV.M be.PST.M
 ‘Ram (habitually) ate bread.’
- b. Raam-ne roTii khaayii thii.
 Ram-ERG bread.ABS eat:PFV.FEM be.PST.F
 ‘Ram had eaten bread.’

Hindi, Müller (2009: 289f.)

7.3 Global case splits

- The choice of case marking depends on properties of both arguments:
 - Ostyak above: The subject gets ergative only if the direct object is definite (the interaction is movement related: since the object ends up in the same case domain as the subject, the dependent case mechanism comes into play)
 - in many languages, the phi-features of the arguments are crucial. Usually, special case marking only arises in configurations that go against the person or animacy scale, either on the subject or on the object. In Fore (Trans-New Guinea), case marking is driven by the animacy scale in (31) (cf. Georgi 2012: 326):

(31) human > animate > inanimate

- (32) a. Yagaa-wama wá aegúye
 pig-ERG man hit
 ‘The pig hits the man.’ anim > hum
- b. Yagaa wá aegúye
 pig man hit
 ‘The man hits (or kills) the pig.’ hum > anim

8 Theories of case assignment: Agree vs. dependent case

8.1 Case assignment via Agree

- functional heads (T, v) assign a case/value an unvalued case feature on the closest DP in their c-command domain
- prediction: the case of the argument is unaffected by the presence/absence of another argument as long as it is still the closest goal for that head

→ the global case-split data above are a serious problem for this view, cf. also (Baker 2014):

- (33) a. Joni-bo-ra teet-ai (34) a. Joni-baon-ra Roa tee-xon-ai
 person-PL-PRT work-IPFV they-PL.ERG-PRT Rosa work-APPL-IPFV
 ‘The people are working.’ ‘They work for Rosa.’
- b. Kokoti-ra joshin-ke. b. Bimi-n-ra Rosa joshin-xon-ke
 fruit-PRT ripen-PRF fruit-ERG-PRT Rosa ripen-APPL-PRF
 ‘The fruit ripened.’ ‘The fruit ripened for Rosa.’ *Shipibo*

- since θ -roles remain constant, they can’t determine the case marking (inherent case)
- the addition of an applied object should not affect the case of the theme/the agent (at least in the case of the agent, the agent remains the highest argument and thus the closest goal to T)

8.2 Dependent case theory

- basic idea: case marking is relational: cases other than nominative are only present if there is another argument in the same relevant domain:
 - accusative languages: lower DP gets accusative
 - ergative languages: higher DP gets ergative
- there may also be inherent cases, which are assigned prior to dependent case (and which are independent of a competitor)
- the data from Ostyak and Shipibo follow straightforwardly (as long as the ergative-marked DP is structurally higher than the other DP and in the same relevant domain)
- question: what does this theory predict for Active alignment/Split-S languages and tripartite alignment?
- a challenge: in Ukrainian, the direct object retains its case under passive even though there is only one argument left:

(35) Inozemcja bulo posadže-no do v'jaznyci hlavoju urjadu.
 foreigner.ACC AUX.PST placed-PASS to prison head-INS of.state
 'A foreigner was placed in prison by the head of state.'

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