Case Domains in Japanese

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What is case?

Case involves the marking of an NP for its context/function, and may be realized by particles, affixes, or inflectional morphology.

Structural case marks NPs in certain structural positions, e.g. subject of finite clause

Lexical case marks arguments of specific lexical items, e.g. dative subjects in many languages

Semantic case contributes a specific meaning, often spacial/temporal

Notes:

- I use NP/DP interchangeably here.
- I assume a weak version of abstract case it's there even when you don't see it as long as there is some morphological evidence for its existence.

Case in Japanese

Four structural cases:

Marker	Case	Canonical Function
ga	nominative	subjects
o	accusative	direct objects
ni	dative	indirect objects
no	genitive	arguments/possessors of nouns

(1) Mearii no imooto ga Jon ni purezento o ageta. Mary GEN sister NOM John DAT present ACC gave 'Mary's sister gave John a present.'

Note: Dative *ni* also occurs as a lexical case (and semantic case/postposition).

How is case assigned/licensed?

- Most traditional theories: all cases determined by the syntactic/semantic relation between an NP argument/modifier and its head.
- Most generative theories: structural cases are assigned by specific functional items (T, D, ν , etc.), lexical case by specific lexical items (usually category V)
- Configurational theories: some structural cases are determined by structural relations between NPs in some domain
 - e.g. dependent case theory (cf. Marantz 2000; Baker 2015)

See Blake (2001) and Butt (2006) for a broad overview.

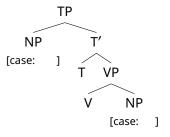
Dependent case theory

Dependent case theory (DCT) distinguishes four types of case (excluding semantic case):

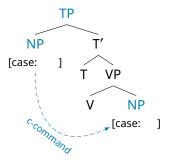
- 1. lexical case assigned by specific lexical items \rightarrow lexical datives
- 2. dependent case assigned to the higher and/or lower of two c-commanding NPs in some case domain \rightarrow accusative, ergative, structural dative, some genitives
- 3. unmarked case assigned to the remaining NPs in the domain \rightarrow some genitives
- 4. default case assigned to NPs that remain caseless \rightarrow nominative/absolutive

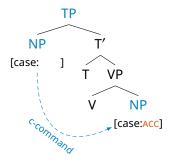
See Marantz (2000) and Baker (2015) for details.

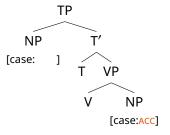
Assume (for now) that accusative is lower dependent case in the scope of TP and nominative is default case.

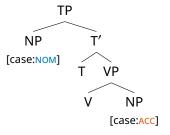


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Dependent case theory – typology

From Baker (2015, p. 145):

Domain	High dependent case	Low dependent case	Unmarked case
TP	Ergative (Shipibo)	Accusative (Korean)	Nominative (Finnish)
VP	Dative (Sakha)	Oblique (Chamorro)	Partitive (Finnish)
Both TP+VP	Erg-Dat (Ika)	Acc-Obl (Amharic)	Nom-Part (Sakha)

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What about Japanese?

- Japanese has a lot in common with languages which have been elegantly analyzed using DCT, but itself has not received such an analysis, with one exception (Ozaki 2014).
- Much earlier, Kuno (1973) presented a configurational analysis using transformational grammar.
- Can we obtain a unified analysis in a modern framework?

Overview

- This talk focuses on the domains of case assignment in Japanese.
- Proposal:
 - 1. Accusative and structural dative are dependent case assigned within vP
 - 2. Genitive is unmarked case assigned within NP
 - 3. Nominative is the default case
- Claim (1) contradicts existing theories in the literature.
 - Accusative is assumed to be assigned within TP in DCT (cf. Baker 2015) and in non-DCT theories of Japanese (cf. Koizumi 1998; Kishimoto 2001; Miyagawa 2003).
 - Dative has been proposed to be the default case (Zushi 2016).
- The accusative and dative rules diverge from DCT and are more similar to Kuno's (1973) analysis. See Hanson (2023) for a formal implementation.

Roadmap

- 1. Basic data and generalizations
- 2. Multiple nominative constructions
- 3. Long-distance case assignment
- 4. The analysis

Preliminaries

- Most examples are constructed and checked with a native speaker. The basic facts are uncontroversial (cf. Kuno 1973; Miyagawa 1989; Tsujimura 2013).
- Examples are presented as topic-less sentences in non-scrambled order.
 - ► Topic-less sentences have a special interpretation which is (usually) not reflected in the given translation. See Kuno (1973) for details.
- Phonemic transcription is used.

Verbal case pattern

The number of arguments predicts their cases.

- (2) a. Taroo ga hasitta.

 Taroo NOM run.PAST

 'Taroo ran.' (intransitive)
 - b. Taroo ga piano o hiita.
 Taro NOM piano ACC play.PAST
 'Taroo played the piano.' (transitive)
 - c. Jin ga Yumi ni hon o ageta. Jin NOM Yumi DAT book ACC give.PAST 'Jin gave Yumi a book.' (distransitive)

Complex predicates

Complex predicates work approximately like simplex predicates.

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(3) a. Sensei ga gakusei o home-ta.
teacher NOM student ACC praise-PAST
'The teacher praised the student.' (simple transitive)
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- b. Gakusei ga home-rare-ta.
 student NOM praise-PASS-PAST
 'The student was praised.' (passive ≈ intransitive)
- c. Oya ga sensei ni gakusei o home-sase-ta.
 parent NOM teacher DAT student ACC praise-CAUS-PAST
 'The parent made the teacher praise the student.' (causative ≈ ditrans.)
- d. Sensei ga gakusei o home-sase-rare-ta.
 teacher NOM student ACC praise-CAUS-PASS-PAST
 'The teacher was made to praise the student.' (passive-causative ≈ trans.)

Multiple datives

In constructions with >3 arguments, the middle arguments are dative.

- (4) Ken ga Jin ni Yumi ni hon o wata-sase-ta.

 Ken NOM Jin DAT Yumi DAT book ACC hand-CAUS-PAST

 'Ken made/let Jin hand Yumi the book.' (causative of ditransitive)
- (5) Ken ga Jin ni Yumi ni hon o watasite morat-ta. Ken NOM Jin DAT Yumi DAT book ACC handing receive-PAST 'Ken got Jin to hand Yumi the book.' (non-finite complement)

Nominal case pattern

All arguments and possessors of nouns are genitive.

- (6) a. yama no e mountain GEN picture 'a picture of a mountain'
 - b. Taroo no hon Taroo GEN book 'Taroo's book'
 - c. Taroo no yama no e Taroo GEN mountain GEN picture 'Taroo's picture of a mountain'

Generalizations so far

- The first (highest) verbal argument is nominative.
- The last (lowest) of 2+ verbal arguments is accusative.
- The middle of 3+ verbal arguments are dative.
- All nominal arguments are genitive.

Some direct objects are dative

- (7) Taroo ga Yumi ni atta.
 Taroo NOM Yumi DAT meet.PAST
 'Taroo met Yumi.'
- This is specific to individual verbs \rightarrow lexical case.
- Some verbs, especially motion verbs, can have either an accusative or dative object, with a slightly different interpretation.

Multiple nominatives

There are several ways to obtain multiple nominative NPs in a single clause.

- Nominative objects of stative predicates
- Multiple subject construction

Stative predicates

Stative predicates don't license accusative case. The object must be nominative.

- (8) a. Yumi ga tenisu ga/*o dekiru. Yumi NOM tennis NOM/*ACC can.do 'Yumi can play tennis.' (stative verb)
 - b. Yumi ga Furansugo ga/[?]o wakaru. Yumi NOM French NOM/[?]ACC understand 'Yumi understands French.' (stative verb)
 - c. Jin ga hebi ga/*o kowai.
 Taroo NOM snake NOM/*ACC be.fearful
 'Jin is afraid of snakes.' (transitive adjective)
- Some stative predicates allow dative subjects → lexical dative.

Stative predicates (2)

Eliminating stativity brings back accusative marking.

(9) Boku ga Jin ni rekisi o wakar-ase-ru.

I NOM Jin DAT history ACC understand-CAUS-NPST
'I will make Jin understand history.'

Sentential aspect does not affect case marking

- (10) a. Saya ga hon o yomu.
 Saya NOM book ACC read.NPST
 'Saya reads books.'
 - b. Saya ga hon o/*ga yonde iru.Saya NOM book ACC/*NOM reading is'Saya is reading a book.'

Multiple subjects

Japanese allows extra subjects in the left periphery called **major subjects**. These are distinct from topics, and are always nominative.

- (11) From Kuno (1973, p. 34), with translations added
 - a. Bunmeikoku no dansei no heikinzyumyoo ga mizikai.
 Civilized country GEN male GEN average.life.span NOM be.short
 'It is the avg. life span of males of civilized countries which is short.'
 - Bunmeikoku no dansei ga heikinzyumyoo ga mizikai.
 Civilized country GEN male NOM average.life.span NOM be.short
 'It is males of civilized countries whose avg. lifespan is short.'
 - c. Bunmeikoku ga dansei ga heikinzyumyoo ga mizikai. Civilized country NOM male NOM average.life.span NOM be.short 'It is civizd. countries whose males are such that their avg. lifespan is short.'

Long-distance case-marking

We'll look at two similar (by my judgment) constructions:

- Finite ECM
- Ga-no conversion

Finite ECM

- Usually, the case marking of embedded clauses is the same as in finite clauses.
- Certain predicates (optionally) allow the embedded subject to be accusative.
- The ECM subject really is inside the embedded clause (Kishimoto 2018).
- (12) Ken ga [Eri ga/o kawaii to] omotteiru. Ken NOM Eri NOM/ACC be.cute that think 'Ken thinks that Eri is cute.'

Ga-no conversion

- Certain embedded clauses allow nominative arguments to be genitive instead.
- Once again, the relevant NPs remain within the embedded clause.
- (13) From Maki and Uchibori (2008)
 - a. Watasi ga [[Jon ga/no kita] riyuu] o sitteiru.

 I NOM John NOM/GEN came reason ACC know
 'I know the reason that John came.'
 - b. Jon ga [ame ga/no yamu (toki) made] ofisu ni ita. John NOM rain NOM/GEN stop (time) until office at was 'John was at his office until the rain stopped.'

More generalizations

- Accusative and structural dative only appear in the domain of a non-stative verb.
- Nominative shows up in heterogeneous environments and can be replaced under certain circumstances.

Analysis

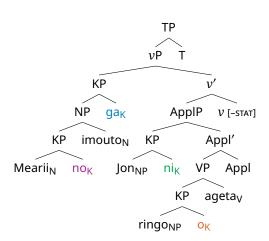
- 1. Accusative is assigned to the lowest of 2+ NPs within non-stative vP.
- 2. Dative is assigned to the middle of 3+ NPs within non-stative vP.
- 3. Genitive is unmarked case assigned within NP.
- 4. Nominative is the default case.
- 5. CP has no case assignment rules, though it is a bounding node nonetheless.
- 6. The clause boundary is invisible in ECM and ga-no conversion.

Syntactic assumptions

- Case-marked nominals are KPs.
- Indirect objects are specifiers of an applicative head.
- Passive and causative morphemes are species of v.
- Assuming bare phrase structure, using X-bar labels for convenience.
- Movement to TP, etc., is not shown, though there probably is movement in this and other cases.

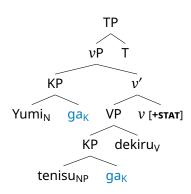
Examples

(1) Mearii no imooto ga Jon ni Mary GEN sister NOM John DAT purezento o ageta. present ACC gave 'Mary's sister gave John a present.'



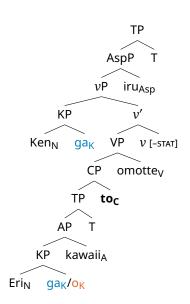
Examples (2)

(8a) Yumi ga tenisu ga dekiru. Yumi NOM tennis NOM can.do 'Yumi can play tennis.'



Examples (3)

(14) Ken ga [Eri ga/o kawaii to] omotteiru. Ken NOM Eri NOM/ACC be.cute that think 'Ken thinks that Eri is cute.'



Why these case domains?

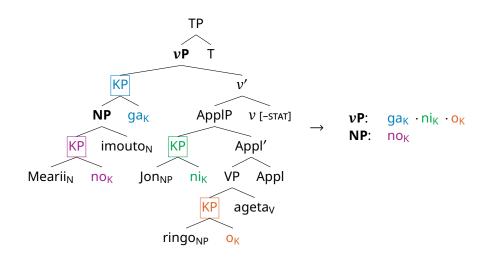
- If nominative was assigned under vP, then it would not be possible to replace it in embedded clauses (unless we allow case rewriting).
- If accusative/dative were assigned under TP/CP, it should be possible to alter/replace them, but this doesn't happen.

The technical details

- Imagine a machine that reads the tree from the bottom up. At each case domain node (CP, vP, NP) it assigns cases according to the stated rules.
- Alternatively, K heads could enter the derivation with their value. Each domain node initiates a checking procedure which enforces the case rules.
- The former is more similar to Kuno/DCT, the latter is used in computational analyses (Vu et al. 2019; Hanson 2023).

The computational analysis in a nutshell

Match KPs with their domain nodes, ordered by c-command. Check that the string of KPs is well-formed. This is very easy to do computationally!



A puzzle: objects and ga-no conversion

Ga-no conversion is impossible in the presence of an accusative object, but is possible with a gapped object in a relative clause.

- (15) From Watanabe (1996)
 - a. [kinoo Jon ga/*no hon o katta] mise yesterday John NOM/*GEN book ACC bought shop 'the shop where John bought a book yesterday'
 - b. [kinoo Jon ga/no ____ katta] hon yesterday John NOM/GEN bought book 'the book which John bought yesterday'

Conclusion

- A wide range of data supports a configurational analysis of Japanese case.
- Accusative and dative are best analyzed as being assigned within vP.
- Something odd is happening with genitives. More investigation is needed!

Thank you!

Acknowledgments

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- Thanks to Thomas Graf, Tom McFadden, Richard Larson, and audiences at SCiL 2023 and SynNYU 2023 for comments and feedback.
- Thanks to Shigeto Kamano for checking constructed data.

Get the slides:



References

Baker, Mark (2015). Case.

Blake, Barry J. (2001). Case. 2nd ed.

Butt, Miriam (2006). Theories of case.

Hanson, Kenneth (2023). "A TSL Analysis of Japanese Case". In: *Proceedings of the Society for Computation in Linguistics 2023*.

Kishimoto, Hideki (2001). "Binding of indeterminate pronouns and clause structure in Japanese". In: *Linguistic inquiry* 32.4.

— (2018). "On exceptional case marking phenomena in Japanese". In: *Kobe Papers in Linguistics* 11.

Koizumi, Masatoshi (1998). "Remarks on nominative objects". In: *Journal of Japanese Linguistics* 16.1.

Kuno, Susumu (1973). *The Structure of the Japanese Language*.

Maki, Hideki and Asako Uchibori (2008). "Ga/no conversion". In: *The Oxford Handbook of Japanese Linguistics*.

Manning, Christopher et al. (1999). "The lexical integrity of Japanese causatives". In: *Studies in contemporary phrase structure grammar*.

References (2)

- Marantz, Alec (2000). "Case and licensing". In: Arguments and Case: Explaining Burzio's generalization.
- Miyagawa, Shigeru (1989). Structure and Case Marking in Japanese.
- (2003). "A-movement scrambling and options without optionality". In: *Word order and scrambling*.
- Miyagawa, Shigeru and Takae Tsujioka (2004). "Argument structure and ditransitive verbs in Japanese". In: *Journal of East Asian Linguistics* 13.1.
- Ozaki, Satoru (2014). "Dependent Case in Japanese". 14th Annual Cornell Undergraduate Linguistics Colloquium (CULC14).
- Tsujimura, Natsuko (2013). *An introduction to Japanese linguistics*. 3rd ed.
- Vu, Mai Ha et al. (2019). "Case assignment in TSL syntax: A case study". In: *Proceedings of the Society for Computation in Linguistics 2019*.
- Watanabe, Akira (1996). "Nominative-genitive conversion and agreement in Japanese: A cross-linguistic perspective". In: *Journal of East Asian Linguistics* 5.4.
- Zushi, Mihoko (2016). "Case and predicate-argument relations". In: *Advances in biolinguistics: The human language faculty and its biological basis*.

Nominal predicates

Nominal predicates are never case-marked, only arguments.

(16) Jin ga tensai da. Jin NOM genius is 'Jin is a genius.'

Two passives for ditransitives

- (17) a. Mari ga kodomo ni okasi o ataeta.

 Mari NOM child DAT candy ACC gave

 'Mari gave the child candy.
 - b. Kodoma ga (Mari ni) okasi o ataerareta.
 child NOM Mari by candy ACC give.PASS.PAST
 'The child was given candy (by Mari).' (goal passive)
 - c. Okasi ga (Mari ni) kodomo ni ataerareta.
 candy NOM Mari by child DAT give.PASS.PAST
 'The candy was given to the child (by Mari).' (theme passive)
 - Miyagawa and Tsujioka (2004): the goal can be either a high NP or low PP, analogous to English double object and to-dative constructions.

Potential verbs

Derived potential verbs allow accusative on the object to alternate with nominative.

Supposedly this works even when there is a structural dative.

(18) From Manning et al. (1999)

- a. Mitiko ga hon o yonda. Mitiko NOM book ACC read.PAST 'Mitiko read the book.'
- b. Mitiko ga hon o/ga yom-e-ru
 Mitiko NOM book ACC/NOM read-POT-NPST
 'Mitiko can read the book.'
- c. Taroo ga kodomo ni piano o/[?]ga naraw-ase-rare-nakat-ta Taroo NOM child DAT piano ACC/[?]NOM learn-CAUS-POT-NEG-PAST 'Taroo was not able to make the child learn how to play the piano.'