

Across the board constructions in Japanese

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Introduction: two approaches to ATB constructions

(1) What_i did [John sell e_i] and [Bill buy e_i]?

• **ATB movement approach** (Williams 1978, Hornstein & Nunes 2002, Citco 2005, a.o.):

(1) a. What_i did [John sell t_i] and [Bill buy t_i]?

• **pro/ellipsis approach** (Sjoberg 1980; George 1980; Frank 1992; Munn 1992; Wilder 1994; Zhang 2009, 2010, 2023; Salzman 2012, 2015):

[What_i did John sell t and [Bill buy pro_i]?

[What_i did John sell t and [what_i did Bill buy t]?

Goal: to defend the ATB movement approach

by investigating the nature of the second gap in Japanese ATB constructions. Japanese independently has *pro* and ellipsis strategies.

Two types of conjunction: “te” and “si/kedo”

- **te** coordinates tenseless verbal domains. → vP coordination
- **si/kedo** coordinate clausal domains. → CP coordination

- (2) a. *John-ga Mary-o home-te, Bill-ga Nancy-o sikat-ta.*
John-NOM Mary-ACC praise-**and** Bill-NOM Nancy-ACC scold-PAST
'John praised Mary and_{vP} Bill scolded Nancy.'
- b. *John-ga Mary-o home-ta-si/kedo, Bill-ga Nancy-o sikat-ta.*
John-NOM Mary-ACC praise-PAST-**and/but** Bill-NOM Nancy-ACC scold-PAST
'John praised Mary and_{CP} Bill scolded Nancy.'

Investigation of the exact size of te- and si/kedo-coordinations

[ConjP(si/kedo)] ≥ CP > High Modal Phrase > TP >

[ConjP(te)] ≥ Low Modal Phrase > NegP > ProgP > vP

• ConjP(te) cannot be embedded under progressive, negation, and low modals.

- (3) a. *John-ga tabe-*(naku)-te, Bill-ga noma-nak-atta.*
John-NOM eat-NEG-**and** Bill-NOM drink-NEG-PAST
intended. 'John did not eat and Bill did not drink.'
- b. *Sonotoki John-ga hasit-*(tei)-te, Bill-ga arui-tei-ta.*
at.that.time John-NOM run-PROG.be-**and** Bill-NOM walk-PROG.be-PRES
intended. 'At that time, John was running and Bill was walking.'
- c. *Sonotoki, John-ga wara-*(isoo)-te, Bill-ga naki-soo datta.*
At.that.time John-NOM laugh-EVI-**and** Bill-NOM cry-EVI COP.PAST
intended. 'At that time, John looks like he will laugh and Bill looks like he will cry.'

• ConjP(te) can be embedded under high modals but ConjP (si/kedo) cannot.

- (4) a. *Konoato-wa, John-ga ki-te, Bill-ga kaer-u-hazu/daroo.*
After.this-TOP John-NOM come-**and** Bill-NOM return-PRES-should/would
'After this, John should/would come and Bill should/would return.'
- b. **Konoato-wa, John-ga ku-ru-si/kedo, Bill-ga kaer-u-hazu/daroo.*
After.this-TOP John-NOM come-PRES-**and/but** Bill-NOM return-PRES-should/would
intended. 'After this, John should/would come and Bill should/would return.'
(? 'After this, John will come and Bill should/would return.')

• ConjP(si/kedo) cannot be embedded under CP.

- (5) **[CP John-ga Mary-o home-ta-si/kedo, Bill-ga Nancy-o sikat-ta ka]siri-ta-i.*
John-NOM Mary-ACC praise-PAST-**and/but** Bill-NOM Nancy-ACC scold-PAST Q want.to.know
intended. 'I want to know [CP whether John praised Mary and Bill scolded Nancy].'

ATB constructions in Japanese

Examples of Japanese ATB constructions:

- (6) a. *Mary-ni, John-ga t_i ringo-o age-te, Bill-ga e_i budoo-o age-ta.*
Mary-DAT John-NOM apple-ACC give-**and** Bill-NOM grape-ACC give-PAST
lit. 'To Mary, John gave apples, and_{vP} Bill gave grapes.'
- b. *Mary-ni, John-ga t_i ringo-o age-ta-si/kedo, Bill-ga e_i budoo-o age-ta.*
Mary-DAT John-NOM apple-ACC give-PAST-**and/but** Bill-NOM grape-ACC give-PAST
lit. 'To Mary, John gave apples, and_{CP} Bill gave grapes.'

Proposal: ATB vP-coordination is derived by ATB movement.
ATB CP-coordination is derived by *pro*/ ellipsis.

Set-up: To avoid non-coordination use of *te* and *si/kedo* (cf. Hasegawa 1996; NINJAL 1951), this study focuses on conjunction in which conjoined phrases are interchangeable with each other.

(i) Wh-phrase

- *Wh*-phrases cannot be *pro* or elided (cf. Sugisaki 2012; (7)).
- (7) **John-ga dore-o tabe-ta no? Bill-ga e non-da no?*
John-NOM which-ACC eat-**and** C Bill-NOM drink-PAST C
intended. 'Which did John eat? Which did Bill drink?'
- The second gap in vP-coordination can be interpreted as a *wh*-phrase, which suggests that this gap should be analyzed as a trace of the fronted *wh*-phrase.
- (8) a. *Dore-o John-ga t_{wh} tabe-te, Bill-ga e non-da no?*
which-ACC John-NOM eat-**and** Bill-NOM drink-PAST C
'Which_{i+j} did John eat e_i and_{vP} Bill drink e_j?'
- b. *Dare-o John-ga t_{wh} home-te, Bill-ga e sikat-ta no?*
who-ACC John-NOM praise-**and** Bill-NOM scold-PAST C
'Who_i did John praise e_i and_{vP} Bill scold e_j?'
- On the other hand, The second gap in CP-coordination cannot be interpreted as a *wh*-phrase.
- (9) a. **Dore-o John-ga t_{wh} tabe-ta-si, Bill-ga e non-da no?*
which-ACC John-NOM eat-PAST-**and** Bill-NOM drink-PAST C
'Which_{i+j} did John eat e_i and_{CP} Bill drink e_j?'
- b. *?*Dare-o John-ga t_{wh} home-ta-si, Bill-ga e sikat-ta no?*
who-ACC John-NOM praise-PAST-**and** Bill-NOM scold-PAST C
'Who_i did John praise e_i and_{CP} Bill scold e_j?'

(iii) Case mismatch

- ATB vP-coordination does not allow case-mismatch.
- (13) a. *Dono-setu-o John-ga t_{OBJ} hihansi-te,*
which-theory-ACC John-NOM criticize-**and**
Bill-ga e yoogosi-ta no?
Bill-NOM defend-PAST C
'Which theory_{ACC} did John criticize t and_{vP} Bill defend_{ACC} e?'
- b. **Dono-setu-ni John-ga t_{OBJ} hanronsi-te,*
which-theory-DAT John-NOM argue.against-**and**
Bill-ga e yoogosi-ta no?
Bill-NOM defend-PAST C
'Which theory_{DAT} did John argue against t and_{vP} Bill defend_{ACC} e?'
- ATB CP-coordination allows case-mismatch, like ellipsis/*pro*.
- (14) *Kono-setu-ni John-ga t_{OBJ} hanronsi-ta-kedo,*
this-theory-DAT John-NOM argue.against-PAST-**but**
Bill-ga e yoogosi-ta (koto).
Bill-NOM defend-PAST fact
lit. '(The fact that) This theory_{DAT} John argued against e,
but_{CP} Bill defended_{ACC} e.'
- (15) *John-ga kono-setu-ni hanronsi-ta.*
John-NOM this-theory-DAT argue.against-PAST
Bill-wa e yoogosi-ta.
Bill-TOP defend-PAST
lit. 'John argued against this theory_{DAT}. Bill defended_{ACC} e.'

(ii) Interpretational mismatch

- Ellipsis allows interpretational mismatches, cancelling polarity sensitivities of NPIs and PPIs (Sag 1976; Johnson 2001).
- (10) a. *John-wa darenimo aw-anak-atta.*
John-TOP anyone.DAT meet-NEG-PAST
'John didn't meet anyone.'
*Bill-wa {e / dareka-ni / *darenimo} at-ta.*
Bill-TOP someone-DAT anyone.DAT meet-PAST
lit. 'Bill met e (= someone/*anyone).'
- b. *John-wa kurasumeeto-no dareka-to suretigat-ta.*
John-TOP classmate-GEN someone-with pass.by-PAST
'John passed by some classmates.'
Bill-wa {e / kurasumeeto-no daretomo/ #kurasumeeto-no dareka-to}
Bill-TOP classmate-GEN anyone.with classmate-GEN someone-with
suretigaw-anak-atta.
pass.by-NEG-PAST
lit. 'Bill did not pass by e (= any of them/#some of them).'
- ATB CP-coordination allows interpretational mismatches, whereas ATB vP-coordination does not.
- (11) a. *Darenimo, John-wa t_{NPI} aw-anak-atta-kedo, Bill-wa e at-ta.*
anyone.DAT John-TOP meet-NEG-PAST-**but** Bill-TOP meet-PAST
lit. 'John didn't meet anyone, but_{CP} Bill met e (= someone).'
- b. **Darenimo, John-wa t_{NPI} aw-anaku-te, Bill-wa e at-ta.*
anyone.DAT John-TOP meet-NEG-**and** Bill-TOP meet-PAST
intended. 'John didn't meet anyone, and_{vP} Bill met someone.'
- (12) a. *Kurasumeeto-no dareka-to John-wa t_{PPI} suretigat-ta-kedo,*
classmate-GEN someone-with John-TOP pass.by-PAST-**but**
Bill-wa e suretigaw-anak-atta.
Bill-TOP pass.by-NEG-PAST
'John passed by some classmates but Bill did not pass by e (= any of them).'
- b. **Kurasumeeto-no dareka-to John-wa t_{PPI} suretigat-te,*
classmate-GEN someone-with John-TOP pass.by-**and**
Bill-wa e suretigaw-anak-atta.
Bill-TOP pass.by-NEG-PAST
intended. 'John passed by some classmates but Bill did not pass by any of them.'
(? 'One classmate, John passed by and Bill did not pass by.')
- The ellipsis approach is not applicable to ATB vP-coordination.

Implications

- Why is the ellipsis/*pro* approach unavailable to ATB vP coordination?
(16) **[&P [vP X ... t_X ...] & [vP ... pro/...]]*
→ identity/licensing condition on *pro*/ellipsis
One possibility: *pro* and ellipsis in Japanese are licensed at SpecCP (Fujiwara 2022).
- Why is the ATB movement approach unavailable to ATB CP coordination?
(17) **[CP X [CP ... t_X ...] & [CP ... t_X ...]]*
→ Ban on C' coordination (?): (18) What did John like and (??did) Bill hate?