

10th Workshop on Altaic Formal Linguistics (WAFL10), MIT, May 2-4, 2014
Preliminary schedule as of March 22, 2014

Day 1 (Friday, May 2) Rooms TBD

8:30	Registration & Breakfast
9:10	Opening Remarks

9:15	Theodore Levin (MIT) <i>An EPP-movement theory of control: evidence from Japanese passives</i>
9:45	Masao Ochi & Asuka Saruwatari (Osaka University) <i>Nominative genitive conversion in (in)dependent clauses in Japanese</i>
10:15	Nobuaki Nishioka (Kyushu) <i>On the positions of nominative subject in Japanese: evidence from Kumamoto dialect</i>

10:45	Coffee Break
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11:00	Suyoung Bae and Bum-Sik Park (Dongguk University) <i>The CMC effect and fragment answers in Korean</i>
11:30	Chorong Kang (USC) <i>Korean intervention effects are not a single phenomenon: evidence from syntax-prosody interface</i>

12:00	Lunch
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1:00	Invited Talk Katja Lyutikova & Sergei Tatevosov (Moscow State University) Title TBA
2:00	Öner Özçelik (Indiana) <i>“Stress” or “intonational prominence”? Word accent in Kazakh, Turkish, Uyghur and Uzbek</i>

2:30	Coffee Break
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2:50	Vahideh Rasekhi (CUNY) <i>Markedness and coda conditions in Azeri</i>
3:20	Suyeon Yun (MIT) <i>Manner assimilation in Uyghur: an articulatory account</i>

3:50	Break
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4:15	MIT Linguistics Colloquium Matt Gordon (UC San Diego) Title TBA
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Day 2 (Saturday, May 3) Rooms TBD

8:45	Registration & Breakfast
9:30	Yasuyuki Fukutomi (Fukushima University) Japanese <i>wh</i> -scope marking as clitic left dislocation
10:00	Masahiro Akiyama (Ehime University) The focus doubling construction in Japanese
10:30	Martina Gracanin-Yukseker (Middle East Technical University) Alternative questions in Turkish
11:00	Coffee Break
11:15	Toshiko Oda (Tokyo Keizai University) Resumptive pronouns of degree in clausal <i>yorimo</i> (than)-comparatives
11:45	Ryosuke Hattori (University of Connecticut) Cross-linguistic variation of selectional property of ‘than’
12:15	Lunch
1:30	Invited Talk Koji Sugisaki (Mie University) Title TBA
2:30	Yuta Sakamoto (University of Connecticut) A phasal approach to argument ellipsis in Japanese and its consequences
3:00	Poster Session
4:30	Alexander Podobryaev (MIT) “Disagreement” effects in Mishar Tatar attitude reports
5:00	Dongsik Lim & Semoon Hoe (Seoul National University) The complement types of attitudes and <i>de se</i> : based on the <i>de se</i> Center shift
5:30	I-Ta Chris Hsieh (National Tsing Hua University) On the evidential restriction of subtriggering in Turkish
6:30	Conference Dinner

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Day 3 (Sunday, May 4) Rooms TBD

9:00	Breakfast
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9:30	Invited Talk Masha Polinsky (Harvard) Title TBA
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10:30	Greg Key (Arizona) & Sylvia L.R. Schreiner (Wheaton College) The prospective marker in Turkish: a unified treatment
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11:00	Coffee Break
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11:15	Yohei Oseki (NYU) & Yoichi Miyamoto (Osaka University) Some consequences of simplest Merge and φ -defectiveness in Japanese
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11:45	Masashi Nomura (MIT / Chukyo University) Remarks on the Case-licensing of nominative objects in Japanese
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12:15	Masahiko Takahashi (Mie University) On the ban on embedded nominative major subjects
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12:45	Lunch & Poster Viewing
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2:00	Michiko Bando (Shiga University) <i>Zibun-no</i> eventive nominal and its binding phenomena in Japanese psych-causative verb constructions
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2:30	Kazue Takeda (Bunkyo University / Harvard) Two types of clefts in Japanese: base-generating vs. fronting nominalized clauses
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3:00	Coffee Break
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3:15	Greg Key & Deniz Tat (Arizona) On (non-)alternating complex predicates in Turkish
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3:45	Claire Halpert & Carter Griffith (Minnesota) Post-verbal CPs in North Azeri: new evidence of extraposition
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4:15	Closing remarks
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Accepted Posters

- Lisa Bylinina (Meertens Instituut) & Lena Karvovskaya (Leiden) [Talk Alternate]
From perspective to comparison: a case study of Turkish *göre*
- Sunghye Cho & Yong-Cheol Lee (University of Pennsylvania)
Tone and metrical structure in Seoul Korean
- Cara DiGirolamo (Cornell)
Beki and *hoo-ga ii*: Japanese priority modals
- Samuel D. Epstein (University of Michigan, Ann Arbor), Hisatsugu Kitahara (Keio University) & T. Daniel Seely (Eastern Michigan University)
Free applications of Merge + overt Case particles = scrambling?
- Hidehito Hoshi (Doshisha University)
Dummy verbs and movement of a focalized VP in Japanese
- Canan Ipek and Maria Luisa Zubizarreta (USC)
Nuclear stress as an abstract rhythmic notion: evidence from Turkish
- Baris Kahraman & Yuki Hirose (University of Tokyo)
Online comprehension of SOV and OSV sentences in Turkish with a supporting context
- Pavel Koval (Moscow State University) [Talk Alternate]
Adjectives in Tatar: internal structure and interpretation
- Takashi Nakajima (Toyama Prefectural University)
The demise of *shim-u*
- Deniz Ozyildiz (Institut Jean Nicod)
Turkish possessives are not exceptional
- Bilge Palaz (Yildiz Technical University)
Opacity effect on ditransitive constructions in Turkish
- Myung-Kwan Park (Dongguk University), Youngjun Jang (Chung-Ang University) & Eui-Yon Cho (Dongguk University)
The distribution of the copula and its implications on the analysis of 'Sluicing'-like constructions in Chinese, Japanese & Korean: Towards a unified account
- Yağmur Sağ (Rutgers)
Person agreement in the Denizli dialect of Turkish
- Tohru Seraku (SOAS, University of London)
Nominalisation, coordination, and growth of semantic representation
- Takeru Suzuki (Tokyo Gakugei University)
Resultative/progressive *-te-i*: the ingressive meaning of the perfective form and its implications in Japanese
- Ayşe Büşra Yakut (Bogazici) [Talk Alternate]
Elliptical *değil* 'not' in Turkish
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Talk Abstracts

An EPP-Movement Theory of Control: Evidence from Japanese Passives

Introduction: Japanese direct passives are control constructions. Their subjects obey a number of restrictions which also apply to the subjects of the valency-increasing indirect passive construction: abstract nouns, idiom chunks, and sentential subjects are illicit. Simultaneously, subject-oriented adverbs are permitted (e.g. Inoue 1976, Kuroda 1979, 1992). The valency-decreasing *ni yotte* passive, akin to the English *be*-passive, displays none of these properties (e.g. Hoshi 1999). However, the direct passive subject also displays semantic identity with the internal argument, can strand quantifiers in internal argument position and licenses resultatives like other derived subjects including those of the *ni yotte* passive (e.g. Miyagawa 1989). Given this hybrid behavior, recent analyses of the construction argue for a control treatment (e.g. Hoshi 1999, Fukuda 2006, Goro 2006). This paper has two goals: (i) I introduce novel data in which direct passives pattern to the exclusion of both indirect and *ni yotte* passives, only direct passive subjects must occupy Spec-TP, further supporting the three-way split among Japanese passives. (ii) I discuss the ramifications these facts have for both PRO and movement theories of control (MTC) (Hornstein 1999 *et seq.*), arguing they are incompatible with a PRO theory. The facts are also incompatible with a MTC in which control movement is triggered by θ -features. Instead, they suggest that control, like raising, must be EPP-driven.

Direct Passives Subject Occupy Spec-TP: Two novel observations support the generalization that subjects of direct passives must occupy Spec-TP: (i) direct passives disallow *ga/no* conversion (GNC) (1). (ii) direct passives disallow subject QPs to scope under negation in scrambling constructions (2).

(1) **Direct passives disallow GNC**

- a. kinoo Taroo-**ga/no** Jiroo-ni yotte suisens-are-ta iinkai (*ni yotte passive*)
yesterday T.-NOM/GEN Z.-by recommend-PAS-PST committee
'The committee that Taro was recommended to by Jiro yesterday'
- b. kinoo Taroo-**ga/no** ooame-ni fur-are-ta basyo (*indirect passive*)
yesterday T.-NOM?GEN big.rain-by fall-PSA-PST place
Lit. 'The place that Taro was fallen upon by heavy rain yesterday.'
- c. kinoo Taroo-**ga/*no** keisatu-ni tukamae-rare-ta basyo (*direct passive*)
yesterday T.-NOM/*GEN police-by catch-PAS-PST place
'The day Taro was caught by the police.'

(2) **Direct passives disallow inverse scope**

- a. [Taroo-ni yotte]_i zen'in-ga t_i mi-rare-nakat-ta (*ni yotte passive*)
T.-by all-NOM see-PAS-NEG-PST
'All weren't seen by Taro.' [all>neg.;neg>all]
- b. [inu-ni]_i zen'in-ga t_i nak-are-nakat-ta (*indirect passive*)
dog-by all-NOM cry-PAS-NEG-PST
'All weren't affected by the dog's crying.' [all>neg.;neg>all]
- c. [sensei-ni]_i zen'in-ga t_i sikar-are-nakat-ta (*direct passive*)
teacher-by all-NOM scold-PAS-NEG-PST
'All weren't scolded by the teacher.' [all>neg.*;neg>all]

Miyagawa (2001, 2012) argues that *both* the ability for a subject to license GNC and take narrow scope with respect to negation is dependent on that subject's ability to be realized lower than Spec-TP.

GNC is best analyzed as an alternation in relative clause architecture (Miyagawa 2012, *contra* Hiraiwa 2005 *a.o.*). Nominative case is realized in (1) when that clause is a CP. Genitive when the clause is a TP. The crucial difference in the two structures is the presence/absence of C⁰. Adopting a feature-inheritance approach (e.g. Chomsky 2005, Richards 2007, Miyagawa 2010), only when C⁰ is present to select T⁰ will T⁰ be active, licensing nominative case on the subject and triggering EPP-movement of the subject to Spec-TP. When C⁰ is absent, T⁰ is defective, failing to license nominative case *or* trigger movement to Spec-TP. Instead, the subject remains in its base position.

The ambiguity in (2a,b) arises due to the differing target position of scrambling (Miyagawa 2001, Ishihara 2007): (i) Spec-TP or (ii) the specifier of a higher XP. The position of the scrambled element has consequences for the position of the subject. If the scrambled *by*-phrase occupies Spec-TP, the subject will remain in its base-position, below negation. If the object A'-scrambles above Spec-TP, the subject undergoes EPP-driven movement to Spec-TP, above negation. When the subject QP is above negations, it takes wide scope. When it is below, it takes low scope.

Given the inability of direct passive subjects to occur with genitive case in relative clauses or to scope under negation in scrambled constructions, I conclude that these nominals *must* occupy Spec-TP. Derivations which require them to be realized in a lower position are ill-formed.

Capturing the Generalization: On the surface, only slight modifications to the control analyses of Japanese direct passives appear necessary to capture the generalization above. Under PRO theories (e.g. Hoshi 1991 *et seq.*, Goro 2006), the subject antecedent must be base-generated in Spec-TP as opposed to the specifier of the projection headed by the passive morpheme *-(r)are*. Support for the ability of Spec-TP to introduce arguments in Japanese comes from analyses of the Major Subject construction (e.g. Kuroda 1987, Tateishi 1991, Takahashi 1994). Under such an account, the scope facts discussed in (2) fall out. If direct passive subjects are generated in Spec-TP, they will never occupy a position lower than negation and will never be able to scope under negation. MTC analyses of the phenomenon (e.g. Fukuda 2006) would require the direct passive subject, generated as the internal argument, to move to Spec-TP. The most natural way to enforce this requirement is to assume that argument-introducing T^0 is equipped with θ -features which force movement to Spec-TP. If we posit, like Hornstein (1999), that movement to a θ -position blocks reconstruction, we capture the lack of inverse scope in (2). However, both approaches make incorrect predictions for GNC.

Control is EPP-Movement: Under either a PRO account or θ -feature driven movement account of Japanese passives, we expect GNC to be well-formed with direct passives as it is for indirect and *ni yotte* passives. Recall that genitive case arises when T^0 fails to inherit EPP/ ϕ -features from C^0 (e.g. Miyagawa 2011, 2012). It seems reasonable, however, to posit that T^0 's ability to introduce an external argument or bear θ -features is *not* inherited. That is to say the thematic relations associated with occupying Spec-TP should hold regardless of the presence/absence of C^0 . Support for this position comes from the observation that syntactic alternations driven by changes in functional architecture (e.g. the causative-inchoative or active-passive alternations) maintain thematic relationships. If this is correct, even when T^0 is defective we predict that it should introduce an external argument or that its θ -features should drive-movement to Spec-TP. In this position the subject should receive genitive case from D^0 .

However, if EPP, and not θ -features, uniformly drive A-movement, we can capture the ungrammaticality of (1c). EPP-features *are* inherited, and we expect genitive subjects to arise only when T^0 bears no EPP-features. For direct passives, the subject would be incapable of movement to Spec-TP. If we adopt the position that thematic roles are determined, not by feature-valuation, but configurationally – read of the syntactic structure at LF (e.g. Hale & Keyser 1993, 2001; Ramchand 2008 *a.o.*), then failure to move the direct passive subject to Spec-TP will yield a θ -criterion violation as no element can be mapped to the thematic role associated with the Spec-TP position.

The result that control movement must be reduced to EPP-driven movement is a beneficial one for the MTC. As Landau (2003) notes θ -feature-driven movement is a shortcoming of the theory, because it introduces an additional set of operation-driving features. Moreover, Landau notes that θ -feature mismatches do not trigger the same ungrammaticality judgments as ϕ -feature mismatches.

- (3) #Sincerity fears John
(4) *Children fears John

If θ -features are active in the narrow syntax and on par with ϕ -features, we would expect a mismatch of θ -features (use of an inanimate experiencer (3)) to trigger the same incompatibility as a mismatch of ϕ -features (use of a plural subject with a singular verb (4)), but they do not. The Japanese data is incompatible with a PRO theory of control, forcing us towards the MTC. However, it also suggests that it is EPP-movement that drives the formation of control constructions. It remains to be seen if such an alternation is tenable across control environments.

Selected References: Fukuda, S. (2006). Japanese passives, external arguments, and structural case. Hale, K & S. J. Keyser. (1993). On argument structure and the lexical representation of syntactic relations. Hornstein, N. (1999). Movement and control. *LI*. Hoshi, H. (1994). Theta-role assignment, passivization, and excorporation. *JEAL*. Hoshi, H. (1999). Passives. Kuroda, S. Y. (1979). On Japanese passives. Landau, I. (2003). Movement out of control. *LI*. Miyagawa, S. (1989). *Structure and Case-marking in Japanese*. Miyagawa, S (2001). EPP, scrambling, and *wh*-in-situ. Miyagawa, S. (2011). Genitive subjects in Altaic and specification of phase, *Lingua*.

Nominative Genitive Conversion in (In)dependent Clauses in Japanese

Proposal: While the domain of Nominative Genitive Conversion (NGC) (e.g., Miyagawa 1993, Watanabe 1996, and Hiraiwa 2001) is almost exclusively confined to adnominal clauses in standard Japanese (SJ), NGC is known to occur in independent clauses in southwestern dialects of Japanese spoken in the Kyushu region (Kato 2007 etc.). By presenting new sets of data from one such dialect spoken in Nagasaki (Nagasaki Japanese, or NJ), and by adopting Miyagawa's (2012) recent proposal about the genitive of dependent Tense (GDT), we argue that the mechanisms for NGC in the two varieties of Japanese differ in the manner summarized below. We also entertain the assumption in (3). Note that since our main concern here is NGC in the clauses that are external to the noun phrase, we will set aside D in the discussion and focus on C and especially weak v.

- (1) Genitive Case licensors in standard Japanese (SJ):
 - a. D (Miyagawa 1993, Ochi 2001 etc.)
 - b. weak v, in conjunction with dependent tense (Miyagawa 2012)
- (2) Genitive Case licensors in Nagasaki Japanese (NJ):
 - a. D
 - b. weak v
 - c. C
- (3) Independent clauses project up to TP when there is no overt complementizer.

Analysis: The contrast between (4a-b) in Nagasaki Japanese (NJ) (cf. Kato 2007 for relevant discussion of Kumamoto Japanese) immediately falls out from our analysis. In (4a), whose structure is schematically given in (5a), genitive on the unaccusative subject is licensed by weak v in NJ (see (9)-(10) for evidence that weak v alone can license genitive in NJ). By contrast, genitive on the unergative subject is not licensed in (4b) in NJ because none of the heads listed in (2) is in the structure (especially in light of our assumption in (3)).

- | | |
|---|--|
| (4) a. Taro-{ga/no} ki-ta.
Taro-Nom/Gen come-PAST
'Taro came.'
[*standard J; √ Nagasaki J] | b. Taro-no warat-ta.
Taro-Gen laugh-PAST
'Taro laughed.'
[*standard J; *Nagasaki J] |
| (5) a. [TP [VP [VP Taro-no ki]] ta] | b. [TP [VP Taro-no [VP wara]] ta] |

Our analysis also captures the hitherto undocumented fact shown in (6): (4b) becomes good in NJ when it ends with some discourse particles, such as *toyo* (see (6a)), which are associated with speech acts (e.g., assertion in the case of *toyo*), or when it is in the progressive form (-*toru*; see (7) and (8) below), as shown in (6b).

- | | |
|--|---|
| (6) Nagasaki Japanese | |
| a. Taro-{ga/no} warat-ta toyo.
Taro-Nom/Gen laugh-PAST C
'Listen, Taro laughed.' | b. Taro-{ga/no} wara-to-ru.
Taro-Nom/Gen laugh-te-be.PRES
'Taro is laughing.' |

Our analysis is as follows. The assumption that sentence-final discourse particles are C heads (e.g., Endo 2010) immediately captures the grammaticality of (6a): the genitive Case in this example is licensed by the C *toyo*. Further, we propose that genitive in (6b) is licensed by weak v. Our specific assumptions about -*toru* are as follows:

- (7) a. -*toru* (-*teiru* for standard Japanese) consists of -*te* and the unaccusative verb *oru* 'be/exist' (*iru* for standard Japanese).
- b. the verbal suffix -*te* is a T head that is not selected by C (see Nakatani 2013)
- (8) [TP₂ [VP₂ [VP [TP₁ [VP₁ [VP] v₁] T₁ (= -*te*)] oru] v₂] T₂]

In a nutshell, we assume -*toru* clause to be bi-clausal, as shown in (8): the unaccusative verb *oru* 'be/exist' selects a TP complement headed by -*te*. With these assumptions, we argue that

genitive in (6b) is licensed by the weak *v* that occurs on top of *oru* (i.e., v_2 in (8)).

Our proposal that weak *v* licenses genitive on its own in NJ receives support from (9)-(10), which contain and contrast two types of adjunct clauses: *toki* ‘when’ clause in the (a)-example and *-te* clause in the (b)-example (*-te* is a temporal sequential marker, according to Nakatani 2013). According to Miyagawa (2012) (see also H. Takahashi 2010), genitive Case on the unergative subject in the adverbial *-toki* clause is not licensed in SJ (see (9a)) because there is no weak *v* (nor D) in the adjunct clause here. Our proposal correctly captures the fact that its counterpart in NJ is fine: genitive Case is licensed by the C *toki* ‘when’. Further, our proposal correctly predicts the ungrammaticality of (9b) in NJ (as well as in SJ): genitive Case on the unergative subject is not licensed in the adjunct *-te* clause because (i) there is no weak *v* in the adjunct clause here and (ii) *-te* clause is a bare TP, lacking a CP layer (see Nakatani 2013). As for (10a), genitive on the unaccusative subject is licensed via GDT in SJ (Miyagawa 2012). The same example is fine in NJ because the adjunct contains weak *v* (and the C *toki*). Our crucial example is (10b), which is bad in SJ but is good in NJ. The ungrammaticality of (10b) in SJ indicates that *-te* does not qualify as dependent tense in the sense of Miyagawa (2012): If it were, this example should be fine in SJ, on a par with (10a). Given this point, the fact that the same example is good in NJ shows that genitive is licensed by weak *v*, and by weak *v* alone.

(9) unergative predicate in the adjunct clause

- a. Hanako-no odot-ta toki minna-wa yorokon-da.
Hanako-Gen dance-PAST when everyone-Top rejoice-PAST
‘Everyone was glad when Hanako danced.’ [*standard J; √Nagasaki J]
- b. Hanko-no odot-te minna-wa yorokon-da.
Hanako-Gen dance-TE everyone-Top rejoice- PAST
‘Everyone was glad as Hanako danced.’ [*standard J; ?*Nagasaki J]

(10) unaccusative predicate in the adjunct clause

- a. Hanako-no ki-ta toki minna-wa yorokon-da.
Hanako-Gen come-PAST when everyone-Top rejoice-PAST
‘Everyone was glad when Hanako danced.’ [√ standard J; √ Nagasaki J]
- b. Hanko-no ki-te minna-wa yorokon-da.
Hanako-Gen come-TE everyone-Top rejoice- PAST
‘Everyone was glad as Hanako danced.’ [*standard J; √ Nagasaki]

Conclusion: According to our proposal, every major phase head can license genitive Case in Nagasaki Japanese (except for strong *v*, which is reserved for accusative). If we look at NGC in standard Japanese from this perspective, we might speculate that the mechanism for NGC in standard Japanese is ‘impoverished’ to a certain extent: (i) C fails to license genitive Case in SJ, and (ii) weak *v* licenses genitive in SJ, but only with the aid of dependent tense. Our analysis is crucially based on Miyagawa’s (2012) proposal about GDT. To the extent that our proposal is on the right track, therefore, it lends credence to his overall analysis.

Selected References: Endo, Y. 2010 “The cartography of sentence final particles,” in *New Developments in Syntactic Theory and the Analysis of Japanese: Beyond Propositions* (written in Japanese), 67-94, Kaitakusha. Hiraiwa, K. 2001 “On Nominative-Genitive Conversion,” *MITWPL* 39, 65-123. Kato, S. 2007 “Scrambling and the EPP in Japanese: From the viewpoint of the Kumamoto dialect in Japanese,” *MITWPL* 55, 113-124. Miyagawa, S. 2012 “The genitive of dependent tense in Japanese and its correlation with the genitive of negation in Slavic,” in *Case, Argument Structure, and Word Order*, 147-168, Routledge. Nakatani, K. 2013 *Predicate Concatenation: A Study of the V-te V Predicate in Japanese*, Kuroshio. Takahashi, H. 2010 “Adverbial clauses and nominative/genitive conversion in Japanese,” *MITWPL* 61, 357-371. Watanabe, A. 1996 “Nominative-Genitive conversion and agreement in Japanese: A cross-linguistic perspective,” *JEAL* 5, 373-410.

On the Positions of Nominative Subject in Japanese: Evidence from Kumamoto Dialect

1. In this paper we explicate the positions of the subject with case-marker ‘-ga’ in standard Japanese (SJ) by observing the use of case-markers in the Kumamoto dialect (KD) spoken in Kyushu, south-western Japan. KD is unique in that it uses two nominative case markers ‘-ga’ and ‘-no’ where only ‘-ga’ is used in SJ.

- (1) a. Tenki-ga/*-no ii-ne. (SJ)
Weather-NOM fine-PRT ‘Nice weather, isn’t it?’
b. Tenki-ga/-no yoka-ne. (KD)
Weather-NOM fine-PRT ‘Nice weather, isn’t it?’

We support the generalization in (2) proposed by Kato (2007) and argue that KD exhibits the positions of the subject overtly, as opposed to SJ, in which this is not clear. It also presents a strong piece of empirical evidence for the vP-Internal Subject Hypothesis, which constitutes a crucial assumption in present linguistic theory but needs empirical support.

- (2) Nominative subject in KD is expressed by the case-marker ‘-no’ if it is inside vP and by ‘-ga’ if it is outside vP, while that in SJ is expressed by ‘-ga’ regardless of whether it is inside or outside vP.

By carefully examining the data in KD, we propose that nominative subject with ‘-ga’ in SJ should be classified into three types, unlike the generally assumed two type classification. We argue that the three types naturally follow from the topic/focus feature-based analysis by Miyagawa (2010). Furthermore, we demonstrate that KD can play a diagnostic role in identifying the subject position and explicating the scope of negation in Japanese.

2. Kato (2007) suggests that ‘-ga’ and ‘-no’ nominative subjects in KD correspond with two interpretations of the nominative ‘-ga’ subject in SJ, which were proposed by Kuno (1973) and generally accepted: exhaustive listing (EL) and neutral description (ND), and ‘-ga’ and ‘-no’ subjects in KD express EL and ND, respectively.

- (3) a. Saru-ga ningen-no senzo desu. (EL in SJ)
monkey-NOM man-GEN ancestor is ‘It is the monkey that is the ancestor of man.’
b. John-ga nihongo-ga dekiru. (EL in SJ)
John-NOM Japanese-NOM can ‘John (and only John) can speak Japanese.’
(4) a. Saru-ga/*no ningen-no senzo (desu) tai. (EL in KD)
monkey-NOM man-GEN ancestor is Prt ‘It is the monkey that is the ancestor of man.’
b. John-ga/*no nihongo-ga/no dekuru. (EL in KD)
John-NOM Japanese-NOM can ‘John (and only John) can speak Japanese.’
(5) a. Tegami-ga kita. (ND in SJ)
letter-NOM came ‘Mail has come.’
b. Tsukue-no ue-ni hon-ga aru. (ND in SJ)
desk-GEN top-on book-NOM is ‘There is a book on the desk.’
(6) a. Tegami-no/*ga kita. (ND in KD)
letter-NOM came ‘Mail has come.’
b. Tsukue-no ue-ni hon-no/*ga aru (tai). (ND in KD)
desk-GEN top-on book-NOM is (Prt) ‘There is a book on the desk.’

However, this classification cannot explain the following examples.

- (7) a. John-ga/*no mimai-ni kite-kureta (tai) (KD)
John-NOM visit for come-gave (Prt) ‘John kindly visited me.’
b. John-ga/*no ittushyookkenmei hataraita (tai). (KD)
John-NOM hard worked (Prt) ‘John worked hard.’

In sharp contrast to (6), ‘-no’ subject is not allowed in (7), though the examples in (7) need not have an EL interpretation. Based on this observation, we propose that ‘-ga’ subjects in SJ should be classified into three types.

- (8) a. Class I: Exhaustive listing or focus, e.g. (3) (cf. (4))

- b. Class II: Topic about which an action or event is expressed, cf. (7)
- c. Class III: Neither focus nor topic inthetic sentences (cf. Kuroda (1992), Erteschik-Shir (2007)), e.g. (5) (cf. (6), (1b) with ‘-no’)

Thus KD uses ‘-ga’ for Class I and II and ‘-no’ for III, while SJ uses ‘-ga’ for all three classes. In feature terms, (8) is represented as in (9).

- (9) a. Class I and II: [nominative], [topic/focus] → ‘-ga’ subject both in KD and SJ
- b. Class III: [nominative] → ‘-no’ subject in KD, ‘-ga’ subject in SJ

3. We demonstrate that the correspondence of the syntactic positions and the interpretations in (2) and (8) is naturally captured in the framework of Miyagawa (2010). Miyagawa argues that discourse-configurational languages such as Japanese have an Agree system based on [topic/focus] feature with the feature-inheritance mechanism from C to T in parallel with the proposal by Chomsky (2007, 2008) for languages with ϕ features agreement, as illustrated in (11) for (10).

- (10) a. Taroo-ga piza-o tabe-ta. (SJ)
Taroo-NOM pizza-ACC eat-PAST ‘Taro ate pizza.’
- b. Piza-o_i Taroo-ga t_i tabe-ta. (SJ)
pizza-ACC Taroo-NOM eat-PAST
- (11) a. [[TP Taroo-ga_[topic/focus] [vP (Taroo-ga_[topic/focus]) [vP piza-o tabe]]ta] C_[topic/focus]]
↑ move ↑ inheritance
- b. [[TP piza-o_[topic/focus] [vP Taroo-ga [vP (piza-o_[topic/focus]) tabe]]ta] C_[topic/focus]]
↑ move ↑ inheritance

This system explains the contrast in (12), as in (11): the subject with [topic/focus] (i.e. ‘-ga’ in KD) has moved to [Spec, TP] in (12a), while the object with [topic/focus] has moved to [Spec, TP], leaving the subject without [topic/focus] (i.e. ‘-no’ in KD) in situ in vP in (12b).

- (12) a. Taroo-ga/*no son shoosetu-ba koo-ta-bai. (KD)
Taroo-NOM the novel-ACC buy-PAST-PRT ‘Taroo bought the novel.’
- b. Son shoosetu-ba Taroo-no koo-ta-bai. (KD)
the novel-ACC Taroo-NOM buy-PAST-PRT

We also argue that the covert stage-topic is involved in (1), (5) and (6) in the use of (8c), following Erteschik-Shir (2007). Finally we demonstrate that the data in KD reveals the scope of negation in Japanese, which has been controversial in the literature (cf. Miyagawa (2001), Saito (2010)) and conclude that [Spec, TP] is out of the scope of negation.

- (13) a. Zen’in-ga/*no siken-ba uke-n-datta. (KD) *not>all, all>not
all-NOM test-ACC take-NEG-PAST ‘All did not take the test.’
- b. Siken-ba zen’in-no uke-n-datta. (KD) not>all, *all>not
- c. Siken-ba zen’in-ga uke-n-datta. (KD) *not>all, all>not

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The CMC effect and Fragment Answers in Korean

[Introduction] It has been observed that certain syntactic operations must obey the Clause-Mate Condition (CMC). That is, when two related XPs undergo movement, they must originate within the same clause. In particular, Lasnik (2013) observes that multiple sluicing in English seems to obey the CMC. Thus, in contrast to (1), when one *wh*-phrase originates in the embedded clause and the other in the matrix clause as in (2), it exhibits the CMC effect.

- (1) a. Fred thinks a certain boy talked to a certain girl. (2) a. A certain boy said that Fred talked to a certain girl.
 b. I wish I could remember which boy to what girl. b. *I wish I could remember which boy to what girl.

In general, Korean also exhibits the CMC effect. In this talk, however, we first report that there are certain cases that seem insensitive to the CMC, and attempt to provide an analysis of them.

[The Data] Korean allows Multiple Fragment Answers (MFAs, henceforth), and just like English multiple sluicing in (1) and (2), Korean MFAs exhibit the CMC effect, as shown in (3) and (4).

- (3) A: Max-ka [CP nwu-ka mwuess-ul mekess-ta-ko] malhayss-ni?
 Max-Nom who-Nom what-Acc eat-Dec-C say-Q
 ‘Who did Max say ate what?’

B: Bill-i ppang-ul
 Bill-Nom bread
 ‘Max said Bill ate bread.’

- (4) A: Nwu-ka [CP John-i mwues-ul mekess-ta-ko] malhayss-ni?
 who -Nom John-Nom what-Acc eat-Dec-C say-Q
 ‘who said that John ate what?’

B: *Bill-i ppang-ul
 [‘intended meaning’]: Bill said John ate bread.’

In contrast, the CMC effect is not observed for examples like (5) and (6): (5B) involves two fragments/remnants: one is matrix dative object, the other is embedded subject. (6) is the same as (4) except that the embedded object appears as the first fragment.

- (5) A: Max-ka nwukwu-ekey [CP nwu-ka ppang-ul mekess-ta-ko] malhayss-ni?
 Max-Nom who-to who-Nom bread-Acc speak-Dec-C say-Q
 ‘Who did Max tell who ate bread?’

B: Bill-ekey John-i
 Bill-to John-Nom
 ‘Max told Bill John ate bread’

- (6) A: Nwu-ka [CP John-i mwues-ul mekess-ta-ko] malhayss-ni? (=4A)
 who -Nom John-Nom what-Acc eat-Dec-C say-Q
 ‘who said that John ate what?’

B: ?Ppang-ul Max-ka
 bread-Acc Max-Nom
 ‘lit. Bread, Max said Bill ate.’

Observing that multiple Sluicing in Japanese also exhibits the CMC effect, Takahashi (1994) proposes an amalgamation-based analysis, according to which the lower *wh*-remnant first adjoins to the upper remnant, forming a cluster/amalgamation and subsequently the cluster moves to Spec CP, followed by TP ellipsis. Crucially, he argues that the amalgamation operation cannot take place across a clause boundary. This analysis, however, cannot account for (5) and (6), since the two remnants originate from different clauses, blocking the amalgamation process. Lasnik (2013) provides a different analysis regarding the English multiple sluicing in (1) and (2). He proposes that while the first remnant undergoes the usual leftward *wh*-movement to Spec CP, the second one undergoes rightward movement. This rightward movement, then, cannot take place out of the embedded clause due to the Right Roof Constraint (Ross 1969), which will yield the CMC effect in (2). For the grammaticality of (1), he argues that the source can be a short construal reading that I wish I could remember which boy talked to what girl. However, this analysis cannot apply to (5)-(6) for the same reason.

[Analysis] We first assume following Merchant (2004) and Park (2005) that (case-marked) fragment answers are derived by ellipsis, preceded by leftward movement of the remnant (possibly to FP). As for the seemingly CMC-insensitive MFAs in (5) and (6), we propose that there is an escape-hatch to evade the CMC, no matter what the nature of CMC is. Specifically, we argue that the grammatical MFAs all allow a ‘hidden’ derivation that involves fronting of the embedded CP, as an answer. For example, as an answer to (5A), one can alternatively utter (7), where both the matrix verb and the matrix subject are elided:

- (7) Bill-ekey [_{CP} John-i *pro* (=ppang-ul) mekess-ta-ko]
 Bill-to John-Nom bread-Acc ate-Dec-C
 ‘lit. to Bill, John ate bread.’

We argue that (7) involves leftward movement of *Bill-ekey* and CP to multiple specifiers of XP/FP, followed by TP ellipsis, as shown in (8a)-(8c). When the focused embedded subject (*John-i*) in the fronted CP is extracted out of it, (8d) is derived. At this point, CP can be elided as shown in (8e). This is how (5B) is derived without violating the CMC.

- (8) a. [_{TP} *pro*(=Max) Bill-ekey [_{TP} John-i *pro*(=ppang) mekesstako] malhaysse.]
 b. [_{XP} Bill-ekey₁ [_{TP} *pro*(=Max) t₁ [_{CP} John-i *pro* mekesstako] malhaysse.]] [Fronting of *Bill-ekey*]
 c. [_{XP} Bill-ekey₁ [_{CP} John-i *pro*(=ppang) mekesstako]₂ [_{TP} *pro*(=Max) t₁ t₂ malhaysse.]] [CP-fronting + TP-ellipsis]
 d. [_{XP} Bill-ekey₁ John-i₃ [_{CP} t₃ *pro*(=ppang) mekesstako]₂ [_{TP} *pro*(=Max) t₁ t₂ malhaysse.]] [Fronting of *John-i*]
 e. [_{XP} Bill-eky₁ John-i₃ [_{CP} t₃ *pro*(=ppang) mekesstako]₂ [_{TP} *pro*(=Max) t₁ t₂ malhaysse.]] [CP-ellipsis]

As predicted by the proposed analysis, there is a striking parallelism between the MFAs in (3), (4) and (6) and the CP-fronting possibility, as shown below:

- (9) [_{CP} Bill-i ppang-ul mekess-ta-ko] [Alternative answer to (3A)]
 Bill-Nom bread-Acc ate-Dec-C
 (10) *Bill-i [_{CP} *pro*(=John) ppang-ul mekess-ta-ko] [Alternative answer to (4A)]
 Bill-Nom bread-Acc ate-Dec-C
 (11) ?_{CP} *pro*(=John) ppang-ul mekess-ta-ko Max-ka [Alternative answer to (6A)]
 bread ate-Dec-C Max-Nom

When the focused NPs in the fronted CP in (9) are both extracted to XP, followed by CP-ellipsis, (3B) is derived. (11) involves CP fronting above the fronted matrix subject, *Max-ka*. When the object is further extracted out of CP and then the CP is elided, (6B) is derived. (10), however, is not acceptable as an answer to (4A). Instead, (10) can only yield the unintended short reading that Bill ate bread. Given that the most natural answer involves *pro* when it refers to an entity in the antecedent, *a priori* there is no reason not to allow (10) as the intended answer. We claim that this problem is related to processing difficulties. According to the Minimal Attachment Principle (cf. Frazier and Fodor 1978, Yoon 2013), the parser chooses the best way to minimize the processing load. This means that the parser processes (10) in a linear order as soon as possible, which means that the parser first decides *Bill-i* as the embedded subject since it is linearly the first overt NP, yielding the unintended meaning.

[Consequences] If the proposed analysis is on the right track, it follows that like English fragment answers in (12B) (Merchant 2004), Korean does not allow embedded fragment answers as in (13B) because the embedded clause in Korean does not have the XP/FP layer.

- (12) A: What did Bill ate? B: a. An apple
 b. *John said that an apple.

- (13) A. Mary-ka mwuess-ul mekess-ni?
 Mary-Nom what-Acc ate-Q
 ‘What did Mary ate?’
 B. *Bill-i ppang-ul malhaysse.
 Bill-Nom bread-Acc said
 ‘[intended meaning]: Bill said Mary ate bread.’

This implies that the extraction of the remnant out of the fronted CP can only target the matrix XP, not the potential XP extended from the fronted CP. This is shown in (8d), and is further confirmed by (14B), where *ecey* ‘yesterday’ allows the matrix reading even though the embedded subject precedes it.

- (14) A. John-i nwukwu-ekey [_{CP} nwu-ka olkela-ko] encey malhays-ni?
 John-Nom who-to who-Nom come-C when say-Q
 ‘When did John say who will come?’
 B. ?Mary-ekey Bill-i ecey
 Mary-to Bill-Nom yesterday
 ‘Yesterday, John said to Mary that Bill will come.’

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Korean Intervention Effects are not a single phenomenon: Evidence from syntax-prosody interface

Puzzles. The Intervention effect/IE has been used to refer to a configuration as in (1) (Beck & Kim 1997, Pesetsky 2000 among others): When an intervener separates an in-situ *wh*-phrase and its *wh*-feature licensing position, the sentence becomes ungrammatical. It has also been attested, however, that focus prosody on *wh*-phrases improves the acceptability of IE configurations in Korean and Japanese as in (2) (Yoon 2012, Tomioka 2007, Eilam 2011, Kitagawa et al. 2012). However, this prosody-driven salvation effect has been studied only with the subject-intervener configuration like (3a), not with object-intervener configuration (3b). The object-intervener configuration (3b) is actually not saved by prosody (4) contrary to the subject-intervener configuration (2). The observation is summarized in (5). I argue that the asymmetrical prosodic effects reveal that object-intervener configuration (5b) is not a case of IEs in the traditional sense, despite of its similarities in surface representation with subject-intervener configuration (5a).

(1) Intervention Effects

*[C_{wh} ... intervener... *wh*-phrase] → [C_{wh} *wh*-phrase... intervener... t_{wh-phrase}]

(2) Japanese Intervention effect sentence with/without focus prosody on *dare* ‘who’

Mariko-dake-ga ***dare-o/DARE-o** sasot-ta-no?
 Mariko-only-Nom **who-Acc** invite-Past-Q
 ‘Who did only Mariko invite?’

(Kitagawa et al. 2012: 46)

(3) a. [C_{wh} ... intervener_{Subj}... *wh*-phrase_{Obj}]

b. [C_{wh} ... intervener_{Obj}... *wh*-phrase_{Subj} ... ~~intervener_{Obj}~~]

(4) Korean Intervention effect sentence with/without focus prosody on *nwukwu* ‘who’

*Amwuto/Younghee-pakkey **nwu/NWU-ka** manna-ci anh-ass-ni? (*Intervener=Obj, Wh=Subj*)
 nobody/Younghee-Only **who-Nom** meet-ci not did- C_Q
 ‘Who is the one who did not meet anyone/anyone but Younghee.’

(5) (Asymmetric) Prosody Effect on the Intervention configuration

	Focus prosody on WH	No focus prosody on WH
a. Intervener _{Subj} > WH _{Obj}	Acceptable	Unacceptable
b. Intervener _{Obj} > WH _{Subj}	Unacceptable	Unacceptable

Backgrounds. Beck&Kim (1997), Kim (2002, 2005), Beck (2006), (cf. Tomioka 2007) argue that the occurrence of a focus phrase between an in-situ *wh*-phrase and its licensing head triggers IEs. Such an assumption alone does not predict the variation in acceptability among sentences which share the same surface structure, but differ in prosody. Pesetsky (2000) suggests the possibility that in-situ *wh*-phrases may or may not avoid IEs depending on the kind of covert phrasal or feature movement they undergo, as summarized in (6), but such a proposal again does not take the occurrence of prosody into consideration

(6) Intervention effects on Formal Feature (ff)-movement (Pesetsky 2000)

- i) In-situ *wh*-phrases undergo either covert phrasal movement or ff-movement.
- ii) When feature movement, not phrasal movement has taken place, IE is observed.
- ii) Korean and Japanese are C_{0-spec} type languages, which allow only feature movement.

Proposals. Departing from (6iii), I crucially propose (7) assuming Korean has *wh*-phrasal movement with the lower member of the chain of movement being phonetically spelled-out, giving the appearance of *wh*-in-situ, and this covert phrasal movement is always realized with focus prosody (increased stress on the *wh*-phrase). In addition, I show the asymmetrical prosody effect on the IE is the consequence of (8) with respect to (informational) [focus] movement.

(7) ***wh*-phrasal movement hypothesis**

When a *wh*-phrase undergoes phrasal movement, this movement is represented with focus prosody.

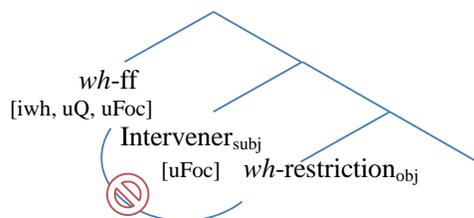
(8) Attract Closest (Pesetsky 2000:15)

α can raise to target K only if there is no legitimate operation Move β targeting K, where β is closer to K (Reinterpretation of Chomsky’s Superiority Condition, Chomsky 1995: 280).

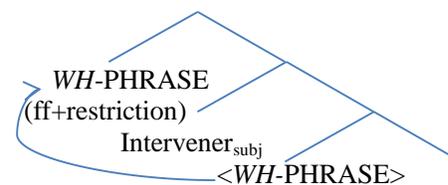
Intervention effects (Subject-intervener configuration). In (9a), a *wh*-phrase attempts to undergo feature movement (there is no focus prosody revealing covert phrasal movement), with the result that its semantic restriction is separated from the moved part by another focus-bearing phrase. This violates (6ii). By contrast, in (9b), a *wh*-phrase undergoes (covert) phrasal movement, so there is no stranded semantic restriction. Whenever the base position of a *wh*-phrase is lower than the potential intervener in the subject-intervener configuration, the type of movement which occurs (i.e. feature or phrasal movement) determines the grammaticality of (5a).

(9) *Intervention Effects*

a. No Focus prosody on *wh*-phrase



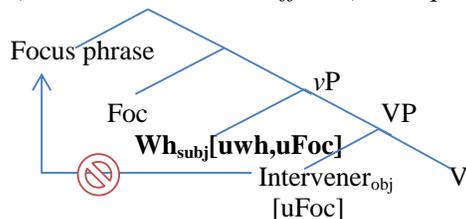
b. Focus prosody on *wh*-phrase



Optionally pronounced in base/moved position

Pseudo-intervention effects (Object-intervener configuration). In the object-intervener configuration (10), the base position of the *wh*-phrase (subject) is higher than the potential intervener. Thus, *wh*-phrase is expected to be free from the IE even though it undergoes ff-movement because there is no intervener above it. It turns out to be true (11). (11) is grammatical no matter whether *who* has focus prosody or not. However, due to Attract Closest, the object focus phrase cannot be scrambled over the *wh*-phrase (10) because scrambling is driven by [Foc] and the subject *wh*-phrase is the closest candidate (due to having [uFoc]) for the target, SpecFocus. Thus, regardless of the movement type of the *wh*-phrase, (5b) is ruled out by (8).

(10) *Pseudo-Intervention Effects (Consequence of Attract Closest)*



Since base position is Wh > NPI, surface order cannot be reverse due to the impossibility of focus-scrambling (4).

- (11) **Nwu/NWU-ka** amwuto manna-ci anh-ass-ni?
who-Nom nobody-Acc meet-ci not did- C_Q
 ‘Who did not meet anyone?’

Implications. 1. As Pesetsky suggested, if IEs can be used as diagnostics for covert phrasal movement, Korean possibly has two distinct covert movements distinguished in prosody (cf. Soh (2005) for Chinese). **2.** If Attract Closest applies to Focus movement in Korean, focus scrambling over nominative Case (traditionally assumed as Focus) may be restricted in general (12a), contrary to focus scrambling over topic phrase (12b).

- (12) a. */?? sakwa-to/sakwa-man John-i sakwa-to/sakwa-man mek-ass-ta.
 apple-too/apple-only John-Nom apple-too/apple-only eat-past-C.
 (lit. John ate apple too/only apple.)
 b. sakwa-to/sakwa-man John-un sakwa-to/sakwa-man mek-ass-ta.
 apple-too/apple-only John-Top apple-too/apple-only eat-past-C.
 (lit. John ate apple too/only apple.)

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‘Stress’ or ‘Intonational prominence’? Word accent in Kazakh, Turkish, Uyghur and Uzbek

It is commonly assumed that the Foot is a universal constituent of the Prosodic Hierarchy (see e.g. Selkirk 1995, Vogel 2009). In this paper, I argue, contra previous approaches, that the presence/absence of the Foot is parametric; whereas some languages, such as English, require every prosodic word (PWd) to have at least one foot, other languages, such as Turkish, Uyghur and Uzbek, are footless.

The assumption that the Foot is a universal constituent of the Prosodic Hierarchy is held despite the fact that children’s first utterances do not contain any evidence of foot structure, even when learning languages that require foot structure. Children’s initial outputs are not in the form of binary feet; they are, in fact, monosyllabic (Jakobson 1941/68), and critically monomoraic, utterances (see e.g. Fikkert 1994, Demuth 1995, Goad 1997). If the Foot came as part of the Prosodic Hierarchy, and thus UG, and if children receive positive evidence containing foot structure from the beginning of the acquisition process, it is not clear why they would not start with the unmarked form of prosodic words (PWds), words composed of binary feet. If, however, the presence/absence of the Foot was parametric, and if the Foot was available only in some languages, children could start with footless utterances, and can then construct the Foot based on positive evidence, that is, if the target language has foot structure, such as English. This would solve the problem posed by language acquisition research, but would require the existence of footless languages, i.e. languages whose *grammar* cannot assign feet.

In this paper, I argue that such languages do exist. For example, having both regular and exceptional stress, Turkish, Uyghur and Uzbek present *formal* (as well as acoustic) evidence of lack of foot structure. Due to space limitations, we will limit ourselves to Turkish in this abstract: Regular stress in Turkish falls on the final syllable of words, with no secondary stress; as (1) illustrates, “stress” is word-final, and each time a suffix is added, stress moves to the right. There are, however, several exceptions to this. The most well-known cases involve words with (i) *pre-stressing* suffixes (see (2)), and (ii) *stressed* suffixes (see (3)).

I propose a single grammar for the two types of exceptional stress, as well as the regular final stress: Given that monosyllabic exceptional suffixes are always pre-stressing (i.e. never stressed or post-stressing) (see (2)), and that stressed exceptional suffixes are always bisyllabic and always stressed on their first syllable (i.e. never on the second) (see (3)), I argue that these suffixes are footed in the input (e.g. /*(me)Ft*/, /*(ince)Ft*/, etc.), and given certain high ranking prosodic faithfulness constraints, they are footed in the output, too (more specifically ANCHOR-RIGHT >> ANCHOR-LEFT to capture the pre-stressing nature of (2)): The grammar, then, assigns TROCHAIC stress, and foot binarity is ensured with a high-ranking FT-BIN. Regular suffixes, on the other hand, come into the computation without underlying foot structure, and given a low ranking PARSE- σ (i.e. as the grammar cannot assign foot structure), they are not footed in the output, either, and TROCHAIC and FT-BIN are vacuously satisfied. Turkish final prominence, then, is ‘intonational prominence’, falling on the last syllable of PWds, and is not foot-based ‘stress’. This is supported by the fact that whereas exceptional stress is cued by both a sharp F₀ rise and greater intensity (typical of true foot-based stress), final prominence is, at best, only a slight rise in F₀ (Levi 2005, Pycha 2006), and, sometimes, a plateau with no acoustic correlates (Konrot 1981, 1987, Levi 2005). The same facts hold for Uyghur and Uzbek, too, as will be discussed in the full paper, but not for Kazakh; final stress in Kazakh is also accompanied by greater duration and intensity in addition, as with true iambic languages. Finally, the fact that there are no monosyllabic stressed exceptional suffixes in Turkish (stressed despite more suffixes being added), and that stressed exceptional suffixes are always bisyllabic, and are always stressed on their first syllable follow directly from the current account. Such gaps in the data cannot be captured on any other pre-specification account (and pre-specification is necessary to capture exceptional cases), unless one assumes Turkish grammar to be trochaic but at the same time footless (unless underlying feet are present).

This proposal finds further evidence from higher-level prosody in Turkic languages and its interaction with exceptional stress: For example, phrasal prominence in Turkish falls on the leftmost PWd in a phonological phrase (PPh) (Kabak & Vogel 2001), and on the rightmost PPh in an intonational phrase (I) (Özçelik & Nagai 2011). In sentences such as (4a), where the indefinite subject *adam* “a man” stays in SpecVP in syntax (i.e. under the same VP projection as the verb), there is only one PPh, and

adam, the first PwD in the PPh, bears PPh-level prominence (bolded); since this is the only PPh within I (and thus the rightmost one), this word also receives I-level prominence (underlined). In a sentence like (4b), on the other hand, there are two PPhs, since the definite subject, *adam* here, moves out of vP/VP up to SpecTP. Out of the two PPhs, the latter bears I-level prominence, for it is rightmost in I. Crucially, however, when an exceptional suffix is present in the second word, as in (5), the dichotomy observed between (4a) and (4b) is lost, and the only footed word available, i.e. (*gél.me*)*di*, gets stressed, irrespective of whether the subject is definite or indefinite. That is, when a foot is available, it attracts PPh- and I-level prominence (heading both the PPh and I), which is not crosslinguistically unusual (see e.g. Gussenhoven 2007). Note that if there *was* indeed foot structure on *adam*, we would expect, under the indefinite reading of (5), this word to get PPh- and I-level prominence, as in (5a’).

All things considered, there is evidence that the projection of the Foot constituent by the grammar is parametric. Due to space considerations, we focused on Turkish in this abstract. Uyghur and Uzbek present strikingly similar evidence, and show acoustic properties for final prominence that are different from truly iambic (and thus footed) languages such as Kazakh. In conclusion, it is high time that phonological theory accepted that the Foot is not a universal constituent of the Prosodic Hierarchy, and there is good evidence for this from several Turkic languages.

Examples:

- (1) eşék eşek-lér eşek-ler-ím eşek-ler-im-dé eşek-ler-im-de-kí
 donkey donkey-PI donkey-PI-my donkey-PI-my-Loc donkeys-PI-my-on-one
 ‘donkey’ ‘donkeys’ ‘my donkeys’ ‘on my donkeys’ ‘one on my donkeys’

- (2) a. dinle-dí b. dinle-dí-de c. dinlé-me-di d. dinlé-me-di-de
 listen-PAST listen-PAST-too listen-NEG-PAST listen-NEG-PAST-also
 ‘He listened.’ ‘He listened, too.’ ‘He didn’t listen.’ ‘He didn’t listen, either.’

- (3) a. gel-ince b. gel-érek c. gel-iyor d. gel-iyor-du-lar
 come-when come-by come-PRES.CONT. come-P.C-PAST-PI
 “when he/she comes” “by coming” “He/she is coming.” “They were coming.”

- (4) a. [[**Adám** gel-dí]_{PPh}]_I b. [[**Adám**]_{PPh} [**gel-dí**]_{PPh}]_I
 man arrive-PAST man arrive-PAST
 “A man arrived.” “The man arrived.”

- (5) a. Adám **gél-me-di**
 man arrive-NEG-PAST
 “A man didn’t arrive.”
 a’. ***Adám** gél-me-di
- b. Adám **gél-me-di**
 man arrive-NEG-PAST
 “The man didn’t arrive.”

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Markedness and Coda Conditions in Azeri

The aim of this study is to investigate how the unpermitted coda consonants in Azeri surface in coda position. All consonants in Azeri are allowed in onset position while there are restrictions on the occurrence of some consonants in coda position. The palatal stop /c/ and the alveolar affricates /ts, dz/ are not permitted in coda. We find alternations in root-final consonants when /ts, dz, c/ appear before a vowel versus when they appear before a consonant or in word-final position. As shown in (1) and the dative forms in (2), the palatal stop /c/ and the glottal /h/ surface faithfully in onset position. But, as in the other forms in (2), both /c/ and /h/ surface as [h] in coda position.

1) UR	<u>Root</u>	<u>Ablative -dVn</u>	<u>Dative -V</u>	<u>Gloss</u>
/hets/	hef	hef.dæn	he.tsæ	'nothing'
/cor/	cor	cor.dan	cor.a	'blind'
2) UR	<u>Root</u>	<u>Ablative -dVn</u>	<u>Dative -V</u>	<u>Gloss</u>
/tyc/	tyh	tyh.dæn	ty.cæ	'hair'
/ceh/	ceh	ceh.dæn	ce.hæ	'numb'

Similarly, as shown in (3), and the dative forms in (4), the affricates /ts, dz/ and the fricative /ʃ/ surface faithfully in onset position. However, as shown in the other forms in (4), before a consonant and in word-final position, they all surface as [ʃ].

3) UR	<u>Root</u>	<u>Ablative -dVn</u>	<u>Dative -V</u>	<u>Gloss</u>
/tsy.ryh/	tsy.ryh	tsy.ryh.dæn	tsy.ry.jæ	'rotten'
/dzy.ri/	dzy.ri	dzy.ri.dæn	dzy.ri.jæ	'short person'
/fy.ʃæ/	fy.ʃæ	fy.ʃæ.dæn	fy.ʃi.jæ	'glass'
4) UR	<u>Root</u>	<u>Ablative -dVn</u>	<u>Dative -V</u>	<u>Gloss</u>
/guʃts/	guʃ	guʃ.dan	gu.tsɑ	'leg'
/o.ruʃdz/	oruʃ	o.ruʃ.dan	o.ru.dzɑ	'fasting'
/baʃ/	baʃ	baʃ.dan	ba.ʃɑ	'head'

According to Lombardi (2002) and de Lacy (2006), there is a universal place of articulation markedness hierarchy *LABIAL,DORSAL>>*CORONAL>>*GLOTTAL. Based on this hierarchy, the unpermitted coda consonants are expected to surface as glottals. I show that, in Azeri, the pattern of neutralization in /c/ conforms to the markedness hierarchy since /c/ surfaces as the glottal [h] in coda. However, the realization of [h] in the affricates is blocked by the high-ranking faithfulness constraint IDENT-IO(STRIDENT), in which case, the relevant constraints are ranked as IDENT-IO(STRIDENT)>>*GLOTTAL. The affricates /ts, dz/ surface as post-alveolar [ʃ] in coda to preserve stridency.

The fact that the alveolar affricates /ts, dz/ don't surface as the alveolar fricatives [s, z] raises a question: given that stridency could be preserved without changing the feature value of [anterior], why do the affricates change from [+anterior] to [-anterior]? Based on the theory of markedness, [+anterior] is less marked than [-anterior] (Calabrese, 1995; de Lacy, 2002) and [+anterior] cannot surface as [-anterior]. However, I provide evidence from Azeri and argue that there is no markedness relationship between [+anterior] and [-anterior]. Another piece of evidence for this argument comes from the coalescence of nasal-voiceless obstruent sequence in Indonesian (Lapoliwa, 1981). The coalescence of the alveolar nasal /n/ and the alveolar fricative /s/ yields the palatal [ɲ] rather than the alveolar [n] (e.g. /mən + sapu/ → [məɲapu] 'to sweep', /mən + siksa/ → [məɲiksa] 'to torture'). The third piece of evidence for my argument comes from Brazilian Portuguese, in which the fricative /ʃ/ with the feature value of [-anterior] is allowed in coda position but the fricative /s/ with the feature value of [+anterior] is not permitted in coda (Barbosa & Albano, 2004).

OT Analysis: To account for the pattern of coda neutralization in Azeri, we need the constraints in (5).

5) a. CODA CONDITIONS:

- i) *[-CONTINUANT, +STRIDENT]]σ (The palatal stop /c/ is not allowed in coda)
- ii) *[-CONTINUANT, -ANTERIOR, -VOICE]]σ (The affricates /ts, dz/ are not allowed in coda)
- b. IDENT-IO(STRIDENT): The specification for the feature [strident] of an input segment must be preserved in its output correspondent.
- c. IDENT-IO(ANTERIOR): The specification for the feature [anterior] of an input segment must be preserved in its output correspondent.
- d. IDENT-IO(PLACE): The specification for place of articulation of an input segment must be preserved in its output correspondent.
- e. IDENT-IO(CONTINUANT): The specification for the feature [continuant] of an input segment must be preserved

in its output correspondent.

f. IDENT-IO(ONSET, PLACE): The specification for place of articulation of an input segment in onset position must be preserved in its output correspondent.

g. *DORSAL, *LABIAL, *CORONAL, *GLOTTAL: No dorsal, labial, coronal, and glottal, respectively.

h. IDENT-IO(DORSAL, LABIAL, CORONAL, GLOTTAL): The specification for the place of articulation (dorsal, labial, coronal, glottal) of an input segment must be preserved in its output correspondent.

6) The pattern of coda neutralization in /c/: /tyc/ → [tyh] ‘hair’

/tyc/	CODA COND	IDENT (ONSET PLACE)	*DOR *LAB	IDENT (STR)	IDENT (ANT)	IDENT (COR)	*COR	*GLO	IDENT (PLACE)	IDENT (CON)
√a. tyh						*	*	*	*	*
b. tyt					*!		**			
c. tys				*!	*		**			*
d. tyf				*!			**			*
e. tyx			*!			*	*		*	*
f. typ			*!			*	*		*	
g. hyh		*!				**		**	**	**
h. hyc	*!	*				*	*	*	*	*
i. tyc	*!						**			

In order to ensure that the affricates /ts, dz/ surface as [ʃ] in coda and that the input forms with /s, z/ in coda surface faithfully, I adopt Lubowicz’s (2002) approach of local conjunction of markedness and faithfulness constraints. Therefore, in addition to the constraints in (5), we also need the constraint in (7) to account for the pattern of coda neutralization in the affricates /ts, dz/.

7) [*[+ANTERIOR] & IDENT-IO(CONTINUANT)]_{Segment}: Assign a violation mark for any output segment that has the feature [+anterior] and doesn’t preserve the specification for the feature [continuant] of its input correspondent.

8) The pattern of coda neutralization in the affricate /dz/: /ayadz/ → [ayaʃ] ‘tree’

/ayadz/	CODA COND	IDENT (ONSET PLACE)	[* [+ANT] & IDENT (CON)] _{Seg}	IDENT (DOR/LAB)	*DOR *LAB	IDENT (STR)	IDENT (ANT)	IDENT (COR)	*COR	*[+ANT]	*GLO	IDENT (PLACE)	IDENT (CON)
√a. ayaʃ					*		*		*				*
b. ayah					*	*!		*			*	*	*
c. ayat					*	*!		*	*	*			
d. ayax					**!	*		*				*	*
e. ayap					**!	*		*				*	
f. ayas			*!		*				*	*			*
g. ayaz			*!		*				*	*			*
h. ahah		*!		*		*		*			**	**	*
i. ayadz	*!				*				*	*			
j. ayac	*!				*	*	*		*				

Conclusion: The Azeri data confirm that glottals are the least marked consonants. However, when the realization of glottals is blocked by a high-ranking faithfulness constraint, coronals surface. The prediction of this study is that unpermitted coda consonants never surface as dorsals and labials in coda. In addition, the provided data show that there is no markedness relationship between [+anterior] and [-anterior] and either one can surface in some language.

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Manner Assimilation in Uyghur: An Articulatory Account

This paper reports new fieldwork data of lateralization and nasalization in Uyghur nasal-liquid consonant sequences. It will be shown that previous analyses of manner assimilation in other Altaic languages based on SYLLABLECONTACT cannot explain the present data. This paper proposes an articulatory account of the Uyghur manner assimilation that can explain the asymmetry in the assimilation pattern depending on the place of articulation as well as its both categorical and gradient realizations.

In Uyghur, sequences created by a stem-final nasal consonant and a suffix-initial /l/ may undergo optional phonological modifications: (i) the alveolar nasal /n/ undergoes lateralization (1a: nl→ll), and (ii) the labial nasal /m/ triggers nasalization of the following /l/ (1b: ml→mn). The velar nasal /ŋ/ in (1c) and other consonants in (1d) do not undergo or trigger total assimilation as in (1a) and (1b) when followed by the [l], although the post-/ŋ/ [l] becomes significantly shortened in informal and fast speech. The gradient reduction of [l] is also observed in a number of tokens with /nl/ and /ml/ clusters.

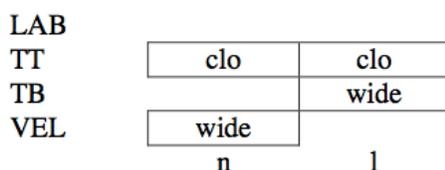
(1) Nouns ending in /m, n, ŋ/, and other C + plural suffix *-lar* (data from my elicitation)

input	output	example
a. /nl/	[nl]~[ll]	e.g. /dukan-lar/ [dukanlar]~[dukallar] ‘shops’
b. /ml/	[ml]~[mn]	e.g. /fam-lar/ [famlar]~[famnar] ‘candles’
c. /ŋl/	[ŋl]	e.g. /tʃoŋ-lar/ [tʃoŋlar] ‘adults’
d. /other C+l/	[Cl]	e.g. /kitab-lar/ [kitablar] ‘books’

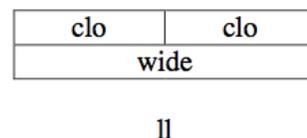
Similar (but not the same) patterns of nasal-liquid clusters in languages such as Yakut, Kazakh, and Korean have been argued to be the result of SYLLABLECONTACT constraint that prohibits rising sonority over a syllable boundary (Davis & Shin 1999, Baertsch & Davis 2000). The present Uyghur data, however, cannot be explained by SYLLABLECONTACT because obstruent-liquid clusters as in (1d), which violate SYLLABLECONTACT more seriously than nasal-liquid clusters, are allowed. Also, the SYLLABLECONTACT analysis cannot account for the reason why the /ŋl/ cluster that also violates SYLLABLECONTACT does not undergo total lateralization or nasalization but is maintained with gradient reduction of the liquid.

This paper argues that the patterns of manner assimilation in Uyghur originate from gestural coordination and can be modeled in the framework of Articulatory Phonology (Browman & Goldstein 1989, 1992). Specifically, the lateralization in /nl/ clusters results from temporal extension of the tongue-body gesture of the liquid. As illustrated in (2a), the nasal [n] consists of a tongue-tip closure and a velum gesture, and in the liquid [l], a tongue-tip gesture is coordinated with a tongue-body gesture. When the former gesture undergoes lenition or deletion while the tongue body gesture of the liquid is extended, the lateralization occurs, as shown in (2b).

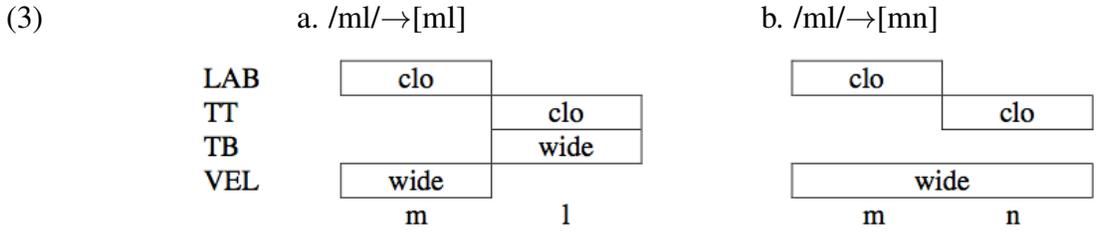
(2) a. /nl/→[nl]



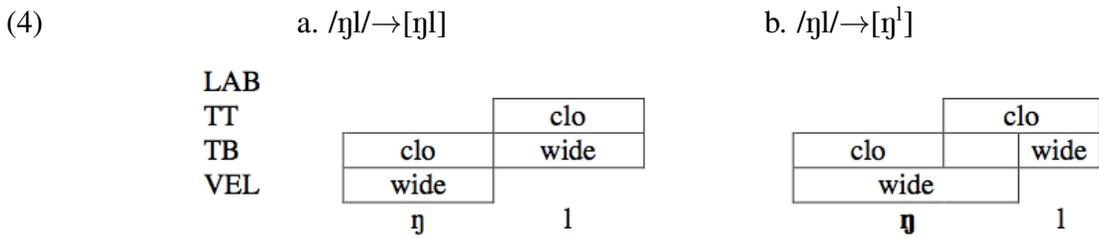
b. /nl/→[ll]



The difference between the lateralization in /nl/ and the nasalization in /ml/ comes from an asymmetric assumption that the velum gesture can be spread in heterorganic clusters, whereas the tongue-body gesture cannot. Thus, as illustrated in (3b), the /ml/ sequence undergoes nasalization of the liquid when the tongue-body gesture of the liquid is reduced or deleted and the velum gesture lasts until the tongue-tip gesture of the liquid is done.



Since the gestural reduction of the nasal and temporal extension of the liquid may be either categorical or gradient, the current articulatory model can predict the gradient reduction of the liquid in /ŋl/ clusters, which is observed in /ml/ and /nl/ clusters as well. As illustrated in (4b), when the velum gesture is extended but not until the end point of the tongue-tip gesture of the liquid and the tongue-body gesture of the liquid is partially reduced, not totally deleted, the resulting form involves the reduced [ɺ]. Depending on the ratio of the velum gesture of the nasal and the tongue-body gesture of the liquid, many different gradient realizations of the nasal-liquid clusters are derived.



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Japanese *Wh*-Scope Marking as Clitic Left Dislocation

This paper shows that Japanese has a so-called “*wh*-scope marking (WSM)” construction and that it poses a recalcitrant problem with the Direct Dependency approach, which the German WSM question does not have. Although the Direct Dependency approach may correctly derive the properties of the German WSM construction, it runs into problems in the case of Japanese. I propose that the Japanese WSM construction should be analyzed as involving a clitic-doubling structure; that is, unlike the German counterpart, the *wh*-scope marker must be cliticized onto the matrix verb. In addition, scope properties of this construction lend some support to Kayne’s (1994) analysis of Japanese *wh*-questions according to which Japanese does not really have *wh*-in-situ, but overt *wh*-movement mediated by pied-piping of the larger clause.

In Japanese, the scope of a *wh*-phrase is usually marked by a question particle such as *ka* (in an embedded clause) or *no* (in a matrix clause). In addition to the long-distance *wh*-question (1b), we have another question-forming strategy as in (2b):

- (1) a. *anata-wa John-ga dare-o aisiteiru ka sitteiru.*
 you-Top John-Nom who-Acc love Q know
 ‘You know who John loves.’
- b. *anata-wa John-ga dare-o aisiteiru to omotteiru no?*
 you-Top John-Nom who-Acc love COMP think Q
 ‘Who do you think that John loves?’
- c. **anata-wa John-ga dare-o aisiteiru ka omotteiru.*
 you-Top John-Nom who-Acc love Q think
 ‘You think who John loves.’
- (2) a. **anata-wa John-ga dare-o aisiteiru to doo omotteiru no?*
 you-Top John-Nom who-Acc love COMP WH think Q
 ‘Who do you think that John loves?’
- b. *anata-wa John-ga dare-o aisiteiru ka doo omotteiru no?*
 you-Top John-Nom who-Acc love Q WH think Q
 ‘Who do you think that John loves?’

The sentence in (2b) consists of two clauses each containing a *wh*-phrase. A characteristic of this type of question is that its felicitous answer involves supplying the value for the *wh*-phrase *dare* like (1b). The contrast in (3) indicates that this type of question is not a sequence of questions or some kind of integrated parenthetical constructions.

- (3) a. *John-wa dare-o aisiteiru no? Anata-wa doo omou no?*
 John-Top who-Acc love Q you-Top WH think Q
 ‘What do you think? Who does John love?’
- b. **anata-wa John-ga dare-o aisiteiru no doo omotteiru no?*
 you-Top John-Nom who-Acc love Q WH think Q
 ‘Who do you think that John loves?’

What is interesting here is that although the verb *omou* cannot take a question complement (1c), the sentence (2b) requires a question as an embedded clause. In fact, if the embedded complementizer is changed into a declarative complementizer *to*, the sentence is degraded as illustrated in (2a). This reminds us of the obligatoriness of partial *wh*-movement in German as in (4):

- (4) a. **Was glaubst du dass sie wann gekommen ist?*
 WH think you that she when come is
- b. *Was glaubst du wann sie gekommen ist?*
 WH think you when she come is

These considerations indicate that sentences like (2b) belong to the same type of questions called “*wh*-scope marking” or “partial *wh*-movement” constructions. Other properties concerning WSM constructions such as “anti-locality”, the incompatibility with verbs selecting a question, and “negative-island” effect corroborate this point.

What makes Japanese WSM questions unique is the word order difference between Japanese and German. While the scope-marker follows its associated clause in the former, the order is reversed in the latter. In fact, if the scope-marker *doo* is preposed to the left of its associate CP, the sentence is degraded, as indicated in (5):

- (5) *anata-wa doo [John-ga dare-o aisiteiru ka] omotteiru no?
 you-Top WH John-Nom who-Acc love Q think Q
 intended: ‘Who do you think that John loves?’

This means that the contentful *wh*-phrase must appear outside the c-command domain of the *wh*-scope marker. Therefore the direct link between the scope marker and the contentful *wh*-phrase seems to be irrelevant for the acceptability of Japanese WSM construction. This constitutes the most recalcitrant problem with the Direct Dependency approach. I propose instead that this difference is the result of clitic nature of the Japanese *wh*-scope marker. Supporting evidence comes from the fact that separating the scope marker from the matrix verb degrades the sentence (6):

- (6) *anata-wa Mary-ga dare-ni atta ka doo kinoo omotta no?
 you-TOP Mary-NOM who-DAT met Q WH yesterday thought Q
 ‘Who did you think yesterday that Mary met?’

Moreover, this analysis opens up the possibility that the WSM structure involves a so-called “Big” DP or “*Wh*-doubling” as in (7) (Poletto and Pollock (2004)) and that its derivation proceeds in the same way as that of the “Clitic Left Dislocation construction,” as shown in (8):

- (7) [_{wh} [_{cl} doo] [_{CP} ...*wh*-phrase...]]
 (8) a. [_{VP} omotteiru [_{wh} doo [_{CP} John-ga nani-o yonda ka]]]
 b. [_{VP} doo_i + omotteiru [_{wh} t_i [_{CP} John-ga nani-o yonda ka]]]
 c. [_{CP} [_{wh} t_i [_{CP} John-ga nani-o yonda ka]_j] [_{VP} doo_i + omotteiru t_j]]]

In Japanese, like Bangla (Simpson and Bhattacharya (2003)), the complement clause must be to the left of the matrix verb in order for the *wh*-phrase contained in that complement clause to obtain wide scope reading (9a, b):

- (9) a. John-ga [_{CP} Mary-ga nani-o yonda to] omotteiru no?
 John-NOM Mary-NOM what-ACC read COMP thinks Q
 ‘What does John think Mary read?’
 b. *John-ga omotteiru no, [_{CP} Mary-ga nani-o yonda to]
 John-NOM thinks Q Mary-NOM what-ACC read COMP

Interestingly, converting the sentence in (9b) into the WSM question by adding a scope marker enables the embedded *wh*-phrase to take wide scope reading, as in (10):

- (10) John-wa doo omotteiru no, [_{CP} Mary-ga nani-o yonda ka]
 John-TOP WH thinks Q Mary-NOM what-ACC read Q
 ‘What does John think Mary read?’

Abstracting away the pragmatic effect of right dislocation, the structure of (10) patterns with the German WSM construction (4b). From this perspective, we can wrap up differences between German and Japanese in the following way. In both languages, there are two ways of expressing wide scope reading of embedded *wh*-items: one is the *wh*-movement, and the other is the *wh*-scope marking. Long-distance *wh*-movement in German and *wh*-in-situ in Japanese do not reflect the availability of movement operation but are the result of differing instantiations of a parameter that specifies the possible size of checking phrases; only a *wh*-phrase in German, while the whole CP containing a *wh*-phrase in Japanese. If this consideration is on the right track, then it lends a support for Kayne’s Antisymmetry approach. In the case of WSM questions, differences can be attributed to the nature of the *wh*-scope marker (clitics in Japanese) and the availability of additional operation that derives the “Left Dislocation” structure in Japanese.

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The Focus Doubling Construction in Japanese

Introduction: Japanese allows sentences/utterances like (1), in which an XP appears in the initial position and an XP identical to the one in the initial position appears in situ at the same time. In this construction, the XP in the initial position is followed by a conspicuous pause that is represented by ‘;’. The lack of this pause makes (1) unacceptable. Furthermore, both the two occurrences of the repeated XP contain a prominent stress, which is represented by capitalization. I consider the syntax of the construction like (1), sometimes comparing it with scrambling.

- (1) *BOCCHAN*_i-o, John-wa *BOCCHAN*_i-o yonda-yo
Bocchan-ACC John-TOP *Bocchan*-ACC read_{PAST}-PART(ICLE) ‘John read *BOCCHAN*.’

Focus-Doubling: A sentence/utterance in which the object is repeated is felicitous as a reply to a question that focuses the object ((2A, B)), but not to a question that focuses the subject ((3A, B)). (3B’), with the subject repeated, is felicitous as a reply to (3A). These facts show that, in the construction like (1), the repeated XP presents the (information)-focus of the entire construction. Hereafter the construction like (1) is referred to as Focus-Doubling (FD), the focused XP in the initial position, as the FXP₁ and the in situ focused XP, as the FXP₂.

- (2) A: John-wa nani-o yonda-no
 John-TOP what-ACC read_{PAST}-Q ‘What did John read?’
 B: *BOCCHAN*_i-o, John-wa *BOCCHAN*_i-o yonda-yo (= (1))
- (3) A: *Bocchan*-wa dare-ga yonda-no
Bocchan-TOP who-NOM read-Q ‘As for *Bocchan*, who read it?’
 B: #*BOCCHAN*_i-o, John-ga *BOCCHAN*_i-o yonda-yo
Bocchan-ACC John-NOM *Bocchan*-ACC read_{PAST}-PART ‘John read *BOCCHAN*.’
 B’: JOHN-ga, (jitu-wa) JOHN-ga *Bocchan*_i-o yonda-yo
 John-NOM actually John-NOM *Bocchan*-ACC read_{PAST}-PART
 ‘(Actually) JOHN read *Bocchan*.’

An analysis: I propose that the FXP₁ is a constituent of a clause (hereafter Clause₁) that is independent of the one that dominates the FXP₂ (hereafter Clause₂) as in (4a), and Clause₁ undergoes ellipsis leaving behind the FXP₁, like in the analysis of gapless Right Dislocation in Japanese suggested by Tanaka (2001). I propose that the FXP₁ is moved to the left peripheral focus position (i.e. [Spec, Foc]) of Clause₁ and the complement of Foc in Clause₁ is deleted under the identity/non-distinctness relation between the two clauses ((4b)). This is similar to what happens in Merchant’s (2001, 2004) analysis of Sluicing and sentence-fragments. The two clauses might be combined by a covert conjunction.

- (4a) [_{Clause1} ... FXP₁ ...] (Conj) [_{Clause2} ... FXP₂ ...]
 (4b) [_{FocP(}Clause₁) FXP₁ [_{Foc} Foc (~~...~~) [~~TP~~ ... [~~XP~~ ...]]]] (Conj) [_{Clause2} ... FXP₂ ...]

Evidence for the bi-clausality: The evidence that FD involves two clauses (i.e. Clause₁ and Clause₂) is provided by (5). (5) contains two occurrences of a topicalized temporal adverb, one before the FXP₁ and one immediately before the subject of Clause₂. The two occurrences of the topicalized adverb are interpreted as thematic topics but not as contrastive topics: *today* is not contrasted with some other day(s). A single clause in Japanese can contain at most one thematic topic in its left peripheral position (Kuno 1973; Yamashita 2011). Under the ‘bi-clausal’ analysis (4), it is easily predicted that Clause₁ and Clause₂ can contain one thematic topic each.

- (5) Kyoo-wa *BOCCHAN*-o, kyoo-wa John-ga *BOCCHAN*-o yonda-yo
 Today-TOP *Bocchan*-ACC today-TOP John-NOM *Bocchan*-ACC read_{PAST}-PART
 ‘Today John read *BOCCHAN*.’

Island-insensitivity of the relation between the FXPs: Under the analysis in (4), the FXP₁ is not moved from the position of the FXP₂ (with its copy being pronounced as the FXP₂). This claim is supported by the fact that the relation between the two FXPs is not subject to island constraints ((6a), the complex NP constraint). This point differentiates FD from long-scrambling, which is subject to the complex NP constraint ((6b)).

- (6a) *BOCCHAN*_i-o, John-wa [[*BOCCHAN*_i-o yonda] gakusei]-o sagasi-te-ru-yo
Bocchan-ACC John-TOP [*BOCCHAN*_i-o read student]-ACC search-ASP-PRES-PART
 ‘John is looking for students who have read *BOCCHAN*.’
- (6b) ?**Bocchan*_i-o John-wa [[_t yonda] gakusei]-o sagasi-te-ru-yo (cf. (6a))

“Reconstruction” of the FXP₁: Under the analysis in (4), the FXP₁ is moved to [Spec, Foc] of Clause₁ from within the TP in it, and the complement of Foc in Clause₁ is identical to or non-distinct from the relevant part of Clause₂. As usual, the FXP₁ can behave as if it were reconstructed into its original position in Clause₁, which is structurally parallel to that of the FXP₂. With Clause₁ and Clause₂ being identical/non-distinct, the FXP₁ should behave as if it were “reconstructed” to the position of the FXP₂. First, the FXP₁ can contain a subject-oriented anaphor that appears to be bound by the subject of Clause₂ ((7)). In (7), the subject of Clause₂ is quantified and thus the anaphor functions as a variable it binds. The FXP₁ is moved from within the TP of Clause₁, which is later deleted ((8)). The anaphor in the in situ copy of the FXP₁ is bound by

the subject of Clause₁, which is identical to that of Clause₂, and behaves as if it were bound by the subject of Clause₂. Second, a pronoun in the FXP₁ can behave as if it were a variable bound by a quantified noun phrase in Clause₂ that c-commands the FXP₂: in (9a), the pronoun in the dative FXP₁ can behave as if it were bound by the accusative object in Clause₂; in (9b), the pronoun in the accusative FXP₁ can behave as if it were bound by the dative noun phrase in Clause₂.

- (7) [ZIBUN_i-no kuruma]-o, [subete-no reesaa]-ga [ZIBUN_i-no kuruma]-o
 self-GEN car-ACC every-GEN racer-NOM self-GEN car-ACC
 kowasita-yo
 broke-PART ‘Every racer_i broke HIS/HER_i CAR.’
- (8) [_{FocP(Clause1)} [ZIBUN_i-no kuruma]-o [_{Foc’ Foc (...)} [_{TP} [<sub>subete-no reesaa]-ga [ZIBUN_i-no kuruma]-o
~~kowasi-ta(-yo)~~]]] (Conj) [_{Clause2} [subete-no reesaa]-ga [ZIBUN_i-no kuruma]-o kowasi-ta-yo]</sub>
- (9a) [Soitu_i-no ATARASHII sensei]-ni, John-wa [subete-no gakusei]-o
 his/her-GEN new teacher-DAT John-TOP all-GEN student-ACC
 [soitu_i-no ATARASHII sensei]-ni shookai-sita
 his/her-GEN new teacher-DAT introduction-did
 ‘John introduced every student_i to HIS/HER_i NEW TEACHER.’
- (9b) [Soitu_i-no ATARASHII sensei]-o, John-wa [subete-no gakusei]-ni
 his/her-GEN new teacher-ACC John-TOP all-GEN student-DAT
 [soitu_i-no ATARASHII sensei]-o shookai-sita
 his/her-GEN new teacher-ACC introduction-did
 ‘John introduced to every student_i HIS/HER_i NEW TEACHER.’

‘Reconstruction’ effects of the above kind can be observed even when the FXP₂ is contained in an island ((10)). In (10), Clause₁ must contain the quantified antecedent that binds the pronoun, and thus must be a full-fledged clause that corresponds to Clause₂ as a whole and contains the island. In other words, Clause₁ in this example cannot be analyzed as taking as its antecedent only the TP/CP contained in the island (Fukaya 2012). This point entails that, in the derivation of (10) (and (6a)), the FXP₁ is extracted from an island. It is therefore suggested that the movement of the FXP₁ in Clause₁ is island-insensitive. Since it is well known that sluicing for example nullifies island-violations (Merchant 2001), this point might be attributed to the ellipsis in Clause₁.

- (10) [SOITU_i-no ronbun]-o, John-wa [subete-no gakusei]-ni
 his/her-GEN paper-ACC John-TOP every-GEN student-DAT
 [[[SOITU_i-no ronbun]-o nose-ta] jaanaru]-o mise-ta-yo
 his/her-GEN paper-ACC publish-PAST journal-ACC show-PAST-PART
 ‘John showed every student_i journals in which his/her_i paper had been published.’

The FXP₁ Does Not C-command Clause₂: The FXP₁ is contained in Clause₁, and does not c-command Clause₂ or anything contained in it. First, this point helps explain the fact that FD does not induce violation of the Condition C of the Binding Theory. For the FD-example (11a), we do not feel the same awkwardness that is observed in (11b), which is attributed to the Condition C. Second, consider (12). In (12a), a pronoun in the subject cannot be bound by the quantified object. Short-scrambling of the object enables the pronoun in the subject to be bound by the object ((12b), Saito (1992)). In (12c), although the quantified object FXP₁ appears in the initial position, it cannot bind the pronoun in the subject of Clause₂, unlike a scrambled object. This point shows that the FXP₁ does not c-command (and A-bind) the subject of Clause₂.

- (11a) JOHN_i-o, Bill-wa JOHN_i-o nagutta-yo
 John-ACC Bill-TOP John-ACC hit-PART ‘Bill hit JOHN.’
- (11b) *John_i-{ga/wa} John_i-o nagutta-yo
 John-_{NOM/TOP} John-ACC hit-PART ‘John hit John.’
- (12a) *[Soitu_i-no sensei]-ga [subete-no gakusei]-o hihan-sita-yo
 his/her-GEN teacher-NOM all-GEN student-ACC criticism-did-PART
 ‘His/her_i teacher criticized every student_i.’
- (12b) [Subete-no gakusei]-o [soitu_i-no sensei]-ga _t hihan-sita-yo (cf. (12a))
- (12c) *[SUBETE-no gakusei]-o, [soitu_i-no sensei]-ga [SUBETE-no gakusei]-o hihan-sita-yo (cf. (12a))

References: [1] Fukaya, T. 2012. Island-sensitivity in Japanese sluicing and some implications. *Sluicing*. J. Merchant and A. Simpson (eds.), 123-163. Oxford University Press. [2] Kuno, S. 1973. *The Structure of the Japanese Language*. MIT Press. [3] Merchant, J. 2001. *The Syntax of Silence*. Oxford University Press. [4] Merchant, J. 2004. Fragments and ellipsis. *L&P* 27: 661-738. [5] Saito, M. 1992. Long distance scrambling in Japanese. *JEAL* 1: 69-118. [6] Tanaka, H. 2001. Right-dislocation as scrambling. *JL* 37: 551-579. [7] Yamashita, H. 2011. An(other) argument for the ‘repetition’ analysis of Japanese right dislocation: Evidence from the distribution of thematic topic-*wa*. *Japanese/Korean Linguistics* 18: 410-422.

- b. *Hasan Ali'nin kahve mi içtiğini yoksa çay mı biliyor.
 Hasan Ali.GEN coffee Q drink.N.ACC not-if tea Q know.PRES.PROG.
 c. *Hasan Ali'nin kahve mi içtiğini biliyor yoksa çay mı.
 Hasan Ali.GEN coffee Q drink.N.ACC know.PRES.PROG. not-if tea Q

The ungrammaticality of (7b) and (7c) follows from the analysis in (5). On this analysis, (7a) has the structure in (8a). The word order in (7b) would arise if the deletion operation in (8b) applied. However, such deletion is impossible, as argued by Ince (2009), who shows that *forward* gapping in Turkish is a root phenomenon, i.e. applies only to matrix clauses.

8. a. [Hasan [[Ali'nin kahve mi içtiğini] [yoksa [Ali'nin çay mı içtiğini]]] biliyor.
 b. [Hasan [[Ali'nin kahve mi içtiğini] [yoksa [Ali'nin çay mı içtiğini]]] biliyor.

Finally, no deletion operation can derive the string in (7c) from the underlying representation in (8). Instead, (7c) would require rightward movement of a focused constituent, which is illicit.

The data from the matrix and embedded AQs thus support the big disjunct analysis. The comparison of the possible placements of *ml* in AQs and polar questions, which I present next, argues, however, that the disjuncts in AQs are not as big as CPs. In polar questions, *ml* can attach to any constituent except pre-nominal modifiers and complements of postpositions. When *ml* appears on the verb (9a) or on the immediately preverbal constituent (9b), the question has a neutral, 'wide focus' (WF) interpretation, as well as the narrow focus (NF) interpretation. *ml* on other constituents only results in a NF reading (10).

9. a. Ahmet arabayı sattı mı?
 Ahmet car.ACC sold Q
 WF: 'Did Ali sell the car?'
 NF: 'Did Ali SELL the car?'
 b. Ali kitabı mi okuyor?
 Ali book.ACC Q read.PRES.PROG.
 WF: 'Is Ali reading the book?'
 NF: 'Is it the book that Ali is reading?'
 10. a. Ali mi gözetmenlik yapıyor?
 Ali Q proctoring do.PRES.PROG.
 NF: 'Is it ALI who is doing the proctoring?'
 b. Ali bugün mü saçlarını kestirecek?
 Ali today Q hair.ACC cut.CAUS.FUT
 NF: 'Is it TODAY that Ali will have his hair cut?'

In AQs, *ml* can also attach to the subject (11a), adjunct (11b), object (11c), or verb (11d).

11. a. Ali mi (yoksa) Ayşe mi geldi?
 Ali Q not-if Ayşe Q came
 'Is it Ali or is it Ayşe who came?'
 b. Ali bugün mü (yoksa) yarın mı geliyor?
 Ali today Q not-if tomorrow Q come.PRES.PROG.
 'Is Ali coming today or tomorrow?'
 c. Çayı mı (yoksa) suyu mu içtin?
 tea.ACC Q not-if wates.ACC Q drank
 'Did you drink the tea or the water?'
 d. Ata bindin mi yoksa attan indin mi
 horse-on got-on Q not-if horse-from got-off Q
 'Did you get on the horse or off the horse?'

However, an AQ with *ml* on the verb cannot receive a WF reading (12a), in contrast to the polar question in (9a). Instead, this reading arises if *ml* appears on the immediately preverbal constituent (12b).

12. a. *Ahmet arabayı sattı mı (yoksa) Hasan kredi aldı mı?
 Ahmet car.ACC sold Q not-if Hasan loan took Q
 b. Ahmet arabayı mi sattı (yoksa) Hasan kredi mi aldı?
 Ahmet car.ACC Q sold not-if Hasan loan Q took
 'Did Ahmet sell the car or Hasan take a loan?'

Assuming that on the WF reading of questions like (9a), *ml* occupies the C^0 position, the ill-formedness of (12a) suggests that the disjuncts in an AQ, although they are clausal, are never as big as CPs. Instead, the whole disjunction phrase appears in the scope of a single null C^0 , as in (12a).

13. [_{CP} [[_{TP} ... *ml* ...] [(yoksa) [_{TP} ... *ml* ...]]] C^0

Conclusion. Turkish AQ data thus seem to support the analysis of AQs on which disjuncts are big (Han and Romero 2004a, 2004b), but not too big, i.e. are not as big as a CP.

Selected references. Erguvanli, E. 1984. *The Function of Word Order in Turkish Grammar*. Berkeley: UC Press. Han, C.-H. & M. Romero. 2004a. The Syntax of Whether/Q...Or Questions: Ellipsis Combined with Movement. *NLLT* 22: 3, 527-564. Han, C.-H. & M. Romero. 2004b. Disjunction, Focus, and Scope. *Linguistic Inquiry* 35: 2, 179-217. Kural, M. 1992. Properties of Scrambling in Turkish. Ms, UCI. Larson, R. 1985. On the syntax of disjunction scope. *NLLT* 3, 217-264.

Resumptive Pronouns of Degree in Clausal *Yorimo*(than)-Comparatives

1. Issue: Japanese clausal *yorimo*(than)-comparatives have attracted wide attention. There are at least four types of analyses of *yorimo*-clauses: Beck et al.'s (2004) headless relative clause analysis, Kennedy's (2007) phrasal analysis, Shimoyama's (2012) application of conventional analyses of 'than'-clauses, and Sudo's (2009, to appear) degree nominal analysis. In this paper I will present a piece of novel data that is correctly captured only by Sudo's degree nominal analysis, which provides an additional empirical difference among the existing analyses.

2. Data: Relevant data is predicative clausal *yorimo*-clauses with a resumptive pronoun of degree in an island. Good examples are very hard to find, but (1) and (2) are somewhat acceptable, where *sore-gurai* 'that degree' and *sore* 'that' refer to the number of audience and parents' income, respectively. (1) and (2) are not perfect, but data with resumptive pronouns are slightly deviant across languages (Boeckx 2003).

(1) (Organizers were worried how many people would come to Prof. Tanaka's talk. However,)

(?)Tyoosyuu-no kazu-wa [[**sore-gurai**-no hito-ga kure-ba] yoi darou
audience-Gen number-Top [[**that-degree**-Gen people-Nom come-if] nice would
to kitaisiteita]-yorimo harukani ookatta.
that were.hoping]-than far was.more

Lit. 'The number of audience was far more than [(the organizers) were hoping that it would be nice [if **that number** of people came]].'

(2) (Hanako wanted to apply for a scholarship. However,)

(?)Oya-no syuunyuuga-ga [[**sore** yori ooi hito]-wa moosiko-me-nai-to kaitearu]-yorimo
parent-Gen income-Nom [[**that** than larger person]-Top apply-can-Neg-that written]-than
ookatta node akirameta.
was.larger because gave.up

Lit. 'She gave up because (her) parents' income was larger than [it is written that [a person (whose parents' income is) larger than **that**] cannot apply].'

3. Hidden degree nominals by Sudo (2009, to appear): Sudo argues that *yorimo*-clauses of predicative *yorimo*-comparatives have hidden degree nominals. In (3), *kasikosa* 'smartness' can optionally appear without changing the meaning of the sentence. Thus the *yorimo*-clause is rather a relative clause that modifies the (hidden) degree nominal.

(3) John-wa [[Hanako-ga kitaishita] (**kasikosa**)]-yorimo (motto) kasikoi.

John-Top [[Hanako-Nom expected] (**smartness**)]-than (more) smart

'John is smarter than [(**the smartness**) [Mary expected]].'

Under Sudo's degree nominal analysis, the resumptive pronouns of degrees in (1)(2) are a natural outcome: The (hidden) degree nominals are head nouns that are co-indexed with the resumptive pronouns of degree in islands. Interestingly, the judgments improve with some over degree nominals.

(4) Tyoosyuu-nokazu-wa [[**sore-gurai**-no hito-ga kure-ba] yoi darou

audience-Gen number-Top [[[that-degree-Gen people-Nom come-if] nice would
to kitaisiteita] (**kazu**/**(?)oosa**)]-yorimo harukani ookatta.
that were.hoping] (**number/largeness**)]-than far was.more

Lit. ‘The number of audience was far larger than [(**the number**/**the largeness**) (the organizers) were hoping that it would be nice [if **that number**, of people came]].’

- (5) Oya-no syuunyuuga-ga [[[**sore**, yori ooi hito]-wa moosiko-me-nai-to kaitearu]
parent-Gen income-Nom [[[**that** than larger person]-Top apply-can-Neg-that written]
(**gaku**/**(?)oosa**)]-yorimo ookatta node akirameta.
(**amount/largeness**)]-than was.larger because gave.up

Lit. ‘She gave up because (her) parents’ income was larger than[(**the amount**/ **the largeness**) [it is written that [a person (whose parents’ income is) larger than **that**,] cannot apply]].’

4. Other analyses: Other analyses fail to predict (1)(2). It is difficult to apply **conventional analyses** of clausal ‘than’-comparatives to (1)(2). Abel (2010) points out that resumptive pronouns are incompatible with ‘than’-clauses, and no significant data of resumptive pronouns is found in ‘than’-clauses cross-linguistically. Abel refers to Sharvit (1999) to account for the fact, which I cannot present here due to space limitation. **Beck et al.’s (2004) headless relative analysis** of *yorimo*-clause also fails to predict (1)(2). They analyze *yorimo*-clauses as a set of individuals, under which only resumptive pronouns of individual arguments might be possible. (However, relevant data is reported ungrammatical by Kikuchi 1987). Crucially, resumptive pronouns of degree are not compatible with their analysis, because there is no degree operator that would bind them. **Kennedy’s (2007) phrasal analysis** assumes that the complement of *yorimo* is type <e>. In other words, *yorimo*-clauses are phrases in disguise. His analysis also fails to predict (1)(2) for the same reasons as Beck et al.’s: There is no degree antecedent that would bind the presumptive pronouns of degree. Note that the degree nominals are NOT type <e,t>, as they clearly have scalar property. It is often morphologically obvious that they are derived from degree predicates, whose properties are carried over to the derived nominals. E.g., *Oosa* ‘largeness’ is derived from *ookii* ‘large.’ (See Sudo (to appear) for more evidence for the degree properties of degree nominals.) In short, Sudo’s hidden degree nominal analysis correctly predicts the resumptive pronouns of degree in (1)(2), while other existing analyses don’t, at least in a straightforward manner.

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Cross-linguistic Variation of Selectional Property of 'Than'

Background: English has two types of comparative construction. In a phrasal comparative, *than* is followed by a phrase (viz. a DP) as in (1).

- (1) a. Mary plays the guitar better than [_{DP} John]
b. More people play the guitar than [_{DP} the violin]

On the other hand, a clausal comparative has a CP complement after *than* as shown below.

- (2) a. He bought a longer umbrella than [_{CP} she did]
b. He bought more umbrellas than [_{CP} she did]

In languages like Chinese does not allow the clausal comparatives as follows.

- (3) nèi-ge yǔsǎn bǐ [_{DP} zhèi-ge] cháng.
that-CL umbrella than this-CL long
(4) a. *Tā mǎi yǔsǎn bǐ [_{CP} wǒ mǎi] cháng.
He buy umbrella than I buy long
b. *Tā mǎi yǔsǎn bǐ [_{CP} wǒ mǎi] duō.
He buy umbrella than I buy many

These differences can be consolidated to the selectional property of *than* in each language. English has two *thans* (as argued by Hankamer 1973) one of which takes DP and the other takes CP while Chinese has only one *than* (=bǐ) which takes DP.

Problem: However, Japanese bans only the degree-compared clausal comparatives but not Quantity-compared Clausal Comparatives (QCC), as shown in (5).

- (5) a. ?*Kare-wa [_{CP} kanojo-ga katta] yori nagai kasa-wo katta
He-Top she-Nom bought than long umbrella-Acc bought
b. Kare-wa [_{CP} kanojo-ga katta] yori takusan kasa-wo katta
He-Top she-Nom bought than many umbrella-Acc bought

Here, *yor*i 'than' takes exactly the same CP in (5a) and (5b), but one is out, so we cannot say neither *yor*i only selects DP nor it selects CP.

Solution: There is a piece of evidence by Ishii (1991) that suggests the moving operator involved in Japanese QCCs is a floating quantifier. Floating quantifiers do not appear with individual-level predicates while they do with stage-level predicates.

- (6) a. ?*Gakusei-ga [FQ san-nin] eigo-ga umai (Individual-level predicate)
Student-Nom 3-CL English-Nom good
'Three students are good at English'
b. Gakusei-ga [FQ san-nin] eigo-o hanasita (Stage-level predicate)
Student-Nom 3-CL English-Acc spoke
'Three students spoke English'

Crucially, the moving null operator in Japanese QCCs shows the same characteristics.

- (7) a. ?*kono kurasu-dewa [\emptyset gakusei-ga] t_i eigo-ga umai
this class-in student-Nom English-Nom good
[x-many]_i yorimo takusan-no gakusei-ga huransugo-ga umai
than many-Gen student-Nom French-Nom good
'More students are good at French than are good at English'
- b. kinoo-no kaigi-dewa [\emptyset shussekisha-ga] t_i eigo-o hanasita
yesterday-Gen meeting-in attendee-Nom English-Acc spoke
[x-many]_i yorimo takusan-no hito-ga huransugo-o hanasita
than many-Gen people-Nom French-Acc spoke
'More people spoke French than spoke English in yesterday's meeting'

(Ishii 1991, pp. 103-104)

Thus, Japanese QCC has the following structure. Here a null external head, which is a floating quantifier, is modified by a relative clause.

- (8) John-wa [_{DP} [_{CP} kinoo hon-o katta] [_N \emptyset ryou]] yori(-mo) kyoo
John-Top yesterday books-Acc bought quantity than today
takusanno zassi-o katta
many magazines-Acc bought

The selectional specificity problem is solved since we can now say that Japanese has only one than (= *yori*) which takes a DP.

Other languages: This paper further looks at other languages in this regard. For example, Korean bans subcomparatives in which *than* takes a CP complement while it can be rescued by nominalizing the whole *than*-complement as shown below, while Greek has two morphologically distinct markers *apo* 'than. PHRASAL' and *ap-oti* 'than. CLAUSAL' as noted by Merchant (2009).

- (9) a. *i thakca-nun ce thakca-ka nelpun pota kilta (Korean)
this table- Top that table-Nom wide than long.
- b. ?i thakca-uy kili-nun ce thakca-uy nelpi pota kilta
this table-Gen length-Top that table-Gen width than long.
'This table is longer than that table is wide'

References: Hankamer, J. (1973). Why there are two than's in English. *Papers from the 9th regional meeting of the Chicago Linguistic Society*. 179-191. Chicago: Chicago Linguistic Society. Ishii, Y. (1991) Operators and Empty Categories in Japanese. Ph.D. Dissertation, University of Connecticut. Merchant, J. (2009) Phrasal and clausal comparatives in Greek and the abstractness of syntax. *Journal of Greek Linguistics* 9:49-79.

A Phasal Approach to Argument Ellipsis in Japanese and Its Consequences

Synopsis: Recent literature (Oku 1998, Takahashi 2008a, b, a.o.) has shown not only empty pronouns (*pro*) but also Argument Ellipsis (AE) is available to derive Japanese null arguments. Abe (2009), however, observes AE is not freely applicable: arguments cannot be elliptic when they are c-commanded by their antecedents. This paper shows Abe's generalization overgenerates, and provides an analysis that accounts for both Abe's data and the new data given here.

Introduction: Though Kuroda (1965) analyzes Japanese null arguments as *pro*, they cannot always be pronominal (cf. Otani & Whitman 1991, Takahashi 2008a, b).

- (1) a. Taroo-wa [zibun-no kuruma]-o aratta. b. Hanako-wa [e] arawanakatta.
 Taroo-TOP self-GEN car-ACC washed Hanako-TOP not.washed
 'lit. Taroo washed self's car.' 'lit. Hanako did not wash e.'
- c. Hanako-wa [sore]-o arawanakatta. [1b]: ✓Strict/✓Sloppy
 Hanako-TOP it-ACC not.washed [1c]: ✓Strict/*Sloppy
 'Hanako did not wash it.' (cf. Otani and Whitman 1991)

(1b) is ambiguous: the null object can be interpreted as Taroo's car (Strict) or Hanako's car (Sloppy). However, if we replace the null object in (1b) by an overt pronoun *sore*, the sloppy reading becomes impossible (1c). Therefore, the *pro* analysis faces a problem regarding the availability of the sloppy reading in (1b) since it would only predict the strict reading. By contrast, Oku's (1998) AE, which allows arguments to undergo ellipsis, can yield the sloppy reading in (1b), since the ellipsis site in (2) includes *self's car*.

- (2) [TP Hanako [NegP [VP _{TP} self's car] V(=wash)] Neg] T]

Abe's Generalization: Abe (2009) proposes a generalization that arguments cannot undergo ellipsis if they are c-commanded by their antecedents.

- (3) a. John-wa [zibun-no musume]-ni [sensei-ga [e] aitagatteiru to] itta.
 John-TOP self-GEN daughter-DAT teacher-NOM want.to.see C said
 'lit. John told self's daughter that the teacher wanted to see e.' ✓Strict/*Sloppy (Abe 2009)
- b. [NP [RC *pro*₁ [VP kibusiku [zibun-no gakusei]-o sikatta]] sensei₁-ga Yamada sensei₂-ni
 strictly self-GEN student-ACC scolded teacher-NOM Yamada teacher-DAT
 [PRO₂ [e] sikaruna to] tyuukokusita.
 not.scold C advised
 'lit. A teacher who strictly scolded self's student advised Prof. Yamada not to scold e.'

✓Strict/✓Sloppy (adapted from Abe 2009)

The null argument in (3a), which is c-commanded by the antecedent in the matrix clause, can only have the strict reading, not the sloppy reading: (3a) can only mean John told self's (= John's) daughter that the teacher wanted to see John's daughter not teacher's daughter. This shows the null argument in (3a) cannot be derived via AE. By contrast, the null argument in (3b), which is not c-commanded by the antecedent within the relative clause, can have both readings: it can be interpreted as either the student(s) of the teacher who advised Bill or Prof. Yamada's student(s). This shows AE is applicable in (3b). Abe's (2009) generalization thus captures the contrast in (3).

Alternatives: To argue AE is possible in (3b) in contrast to (3a), we have to exclude the alternative analyses of Japanese null arguments for (3b). First, Otani & Whitman's (1991) V-stranding VP-Ellipsis (VPE) analysis is excluded since it incorrectly predicts the manner adverb *kibusiku* should be able to modify the empty site just like the adverb in English VPE constructions in (4) does.

- (4) John [VP strictly scolded Mary], but Bill didn't [VP e]. = Bill didn't strictly scold Mary.

Specifically, (3b) cannot be interpreted as a teacher advised Prof. Yamada not to scold strictly: it can only be interpreted as a teacher advised Prof. Yamada not to scold at all. Second, Hoji's (1998) null indefinite pronoun (*ec*) analysis is also excluded. According to him, the sloppy reading is obtained via the null counterpart of bare nouns, which can be interpreted in various ways including the sloppy reading in Japanese. However, Saito (2007) shows the true sloppy reading is obtained when we negate the sentence. Specifically, (3b) is appropriate in the situation where a teacher advised Prof. Yamada to scold the students other than his (= Prof. Yamada's). The *ec* analysis, however, incorrectly predicts (3b) is interpreted as a teacher advised Prof. Yamada not to scold the students at all as in (5): AE is then the only option for (3b).

- (5) [DP [RC *pro*₁ [VP kibusiku [zibun-no gakusei]-o sikatta]] sensei₁-ga Yamada sensei₂-ni
 strictly self-GEN student-ACC scolded teacher-NOM Yamada teacher-DAT
 [PRO₂ [*ec* (= gakusei)] sikaruna to] tyuukokusita.
 not.scold C advised

'lit. A teacher who strictly scolded self's student advised Prof. Yamada not to scold *ec* (= student).'

Problems: Abe's generalization faces at least two problems.

[i] Hoji (1985), a.o., concludes from the grammaticality of (6) that the possessor does not c-command out of the noun phrase since (6) should then violate Condition C. The same argument holds also for (7).

- (6) [Kare₁-no hahaoya]-ga John₁-o semeta
 he-GEN mother-NOM John-ACC criticized

'His mother criticized John.' (adapted from Hoji 1985)

- (7) Hanako-wa [**kare**₁-no hahaoya]-ni [sensei-ga **Taroo**₁-ni aitagatteiru to] itta.
 Hanako-TOP he-GEN mother-DAT teacher-NOM Taroo-DAT want.to.see C said
 'Hanako told his₁ mother that the teacher wanted to see Taroo₁.'

The grammaticality of (7) shows *kare* in the matrix dative phrase does not c-command out of the phrase. Abe's generalization then predicts the possessor could be the antecedent in (8), which is not borne out.

- (8) Hanako-wa [[**zibun-no tomodati**]-no hahaoya]-ni [sensei-ga [*e*] aitagatteiru to] itta.
 Hanako-TOP self-GEN friend-GEN mother-DAT teacher-NOM want.to.see C said
 'lit. Hanako told the mother of self's friend that the teacher wanted to see *e*.'

(8) cannot mean Hanako told the mother of self's (=Hanako's) friend that the teacher wanted to see self's (=teacher's) friend.

[ii] Abe (2011) observes scrambling does not affect the availability of the sloppy reading as in (9).

- (9) [Sensei-ga [*e*] aitagattairu to]_i John-wa [**zibun-no musume**]-ni *t*_i itta.
 teacher-NOM want.to.see C John-TOP self-GEN daughter-DAT said
 'lit. That teacher wanted to see *e*, John told self's daughter.' ✓Strict/*Sloppy (Abe 2011)

He mentions the unavailability of the sloppy reading in (9) would be explained under his generalization if we assume the null argument is c-commanded by its antecedent through the reconstruction of the embedded clause. However, this analysis cannot capture the lack of the sloppy reading in (10).

- (10) [Sensei-ga [*e*] aitagattairu to]_i-**mo** John-wa [**zibun-no musume**]-ni *t*_i **iwanakatta**.
 teacher-NOM want.to.see C-also John-TOP self-GEN daughter-DAT not.said
 'lit. That teacher wanted to see *e* too, John did not tell self's daughter.'

[✓also>>neg/*neg>>also] ✓Strict/*Sloppy

(10) presupposes there is at least one thing that John did not tell self's daughter; it cannot be interpreted as John told something to self's daughter but it is not the case that John also told self's daughter that the teacher wanted to see *e*. This means the embedded clause must scope over negation (cf. Hasegawa 1991): in other words, the embedded clause to which the focus particle *-mo* 'also' is attached does not reconstruct into the original position in terms of scope. Abe's generalization then incorrectly predicts the sloppy reading to be available in (10).

Proposal: We assume with Chomsky (2000): (i) derivations proceed from the bottom to top; (ii) syntactic derivations are cyclically transferred; (iii) operations are applied in a phase-by-phase fashion (= AE applies to an argument when it undergoes Transfer). Furthermore, we propose that only an argument which has already undergone Transfer can be the antecedent for elliptic arguments. Given these, all of the paradigms above can be explained. The sloppy reading of (1b) is accounted for as in (11).

- (11) a. [_{CP} [_{TP} Taroo_i [_{VP} *t*_i [_{VP} wash self's car]]]] b. [_{VP} Hanako_i [_{VP} wash self's car]]

X = potential antecedent **X** = argument which undergoes AE ...**X**... = transferred domain

In the preceding clause (11a), *self's car* undergoes transfer and becomes available as an antecedent, so *self's car* in (11b) can undergo AE when the vP phase is completed. This proposal accounts for the unavailability of the sloppy reading in (3a) since *self's daughter* in the matrix clause cannot undergo Transfer before the object within the embedded clause does, and hence cannot become an appropriate antecedent as in (12).

- (12) * [_{VP} teacher [_{VP} want.to.see self's daughter]] (= no available antecedent for *self's daughter*)

Furthermore, the availability of the sloppy reading in (3b) is also explained since we can first construct the complex subject (K), and then construct the matrix vP (L) as in (13).

- (13) K: [_{NP} teacher [_{CP}(Relative Clause) [_{TP} *pro*_i [_{VP} severely scolded self's student]]]]
 L: [_{VP} *K* [_{VP} Prof. Yamada [_{CP} PRO not to scold self's student]]]

The proposal can also overcome the problems with Abe's generalization. First, it correctly explains why the possessor within the matrix dative phrase cannot be the antecedent in (8) because *self's friend* occupies the specifier of the NP: it cannot undergo Transfer before the object within the embedded clause does even if we assume NP is a phase. Second, the proposal accounts for the fact that scrambling does not affect the availability of the sloppy reading in (9) and (10) since the embedded clause has to be constructed first regardless of whether there is scrambling of the embedded clause or whether the focus particle *-mo* 'also' is attached to the embedded clause. In other words, we cannot obtain the situation where the matrix dative phrase undergoes Transfer before the embedded object does.

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“Disagreement” effects in Mishar Tatar attitude reports

It has been noticed in Khanina 2007 that overt 1st person and 2nd person subjects of embedded finite CPs in Mishar Tatar do not have to trigger 1st/2nd person agreement on the verb (1a,b), which would have been ungrammatical in unembedded clauses. In this paper, I am going to argue that this is an effect of *indexical shifting* that affects only *null* pronouns in Mishar Tatar: when there is no overt 1st/2nd person agreement in (1), the overt pronouns are not true subjects, while the true subjects are *shifted* null 3rd person pronouns that are agreed with (3SG verbal agreement is always null). The account makes new predictions that are largely borne out.

- (1) a. Roza [min kit-te(-m) dip] bel-ä.
 Roza I leave-PST(-1SG) C know-ST.IPFV
 ‘Roza knows that I left.’
 b. Alfija [sin wakɣɣnda kil-de(-ŋ) dip] šatlan-a.
 Alfija you in.time come-PST(-2SG) C be.happy-ST.IPFV
 ‘Alfija is happy that you came.’ (Khanina 2007)

1 Null and overt pronouns in Mishar Tatar indexical shifting. Indexical shifting in Mishar Tatar is an independently attested phenomenon. In finite clauses embedded under attitude verbs null indexical pronouns optionally shift, but overt pronouns never do:

- (2) Alsu [*pro* kaja kit-te-m] at'-ɣɣ?
 Alsu *pro* where leave-PST-1SG say-PST
 ‘Which place did Alsu_i say I/she_i went?’
 (3) Alsu [min kaja kit-te-m] at'-ɣɣ?
 Alsu I where leave-PST-1SG say-PST
 ‘Which place did Alsu_i say I/*she_i went?’

I propose an analysis in terms of a monster operator (cf. Anand and Nevins 2004, Anand 2006, Deal 2013, Shklovsky and Sudo to appear) that manipulates the parameter relevant for the interpretation of null pronouns, but not of overt pronouns.

Null pronouns and overt pronouns in Mishar Tatar might indeed have different denotations. I argue that null pronouns denote variables with complex indices (cf. Minor 2011, Sudo 2012), while overt pronouns are true Kaplanian indexicals:

- (4) a. $\llbracket \textit{pro}_{\langle i, \textcircled{1} \rangle} \rrbracket^{c,g} = g(\langle i, \textcircled{1} \rangle)$.
 b. $\llbracket \textit{pro}_{\langle i, \textcircled{2} \rangle} \rrbracket^{c,g} = g(\langle i, \textcircled{2} \rangle)$.
 (5) a. $\llbracket \textit{min} \rrbracket^{c,g} = s_c$.
 b. $\llbracket \textit{sin} \rrbracket^{c,g} = h_c$.

Person features (①, ②) constrain the assignment function in the following way:

- (6) *Admissibility Condition for Assignment Functions*
 Assignment function g is admissible with respect to speaker x and possible world w only if for all $i \in \mathbb{N}$,
 a. $g(\langle i, \textcircled{1} \rangle)$ is the individual s_c that x identifies as himself/herself in w
 b. $g(\langle i, \textcircled{2} \rangle)$ is the individual h_c that x identifies as his/her addressee in w (after Sudo 2012)

3rd person (③) indices are used when it is not possible to use 1st or 2nd person indices to arrive at the same meaning:

- (7) *Elsewhere 3rd person Principle*
 For all $i, j, k \in \mathbb{N}$, a complex index with the 3rd person feature $\langle i, \textcircled{3} \rangle$ is not licensed in a position P of a sentence S , if there is an alternative sentence S' , different from S at most in that $\langle i, \textcircled{3} \rangle$ in P is replaced by $\langle i, \textcircled{1} \rangle$ or $\langle i, \textcircled{2} \rangle$, such that $\llbracket S \rrbracket^g = \llbracket S' \rrbracket^g$.

The monster operator \mathbb{M} in Mishar Tatar manipulates the assignment function in changing the values of all 1st and 2nd person indices to the *de se* and *de te* individuals of the embedded context (this kind of monster was hypothesized in Sudo 2012 for independent reasons):

- (8) $\llbracket \llbracket \mathbb{M} i_k \rrbracket \phi \rrbracket^g = \llbracket \phi \rrbracket^{g'}$
 where g' differs from g at most in that for all $i \in \mathbb{N}$,
- a. $g'(\langle i, \textcircled{1} \rangle) = s_{g(i_k)}$
 - b. $g'(\langle i, \textcircled{2} \rangle) = h_{g(i_k)}$ (see Sudo 2012: 242)

Importantly, the monster doesn't have any effect on overt pronouns that always denote the speaker and hearer coordinates of the context of utterance.

2 Accounting for “disagreement”. I suggest that in cases of apparent lack of subject-verb agreement, as in (1), there are actually null 3rd person subjects that agree with the verbs (3SG agreement in Mishar Tatar is always null on a finite verb). Overt 1st and 2nd person pronouns in these cases are not subjects, but rather *hanging topics*, coreferent with null 3rd person subjects.

In the scope of the monster, 3rd person null pronouns can refer to any individual but those that would be referred to by shifted 1st and 2nd person pronouns (given (7)), i.e. the attitude holder and his/her addressee. Since the attitude holder in (1a) is different from the speaker of the utterance, coreference between a non-shifted overt 1st person pronoun and a shifted 3rd person pronoun is possible. Similarly, a shifted 3rd person pronoun can be coreferent with a non-shifted 2nd person pronoun (1b).

3 New predictions. If this analysis is on the right track, we shall see the option of 3rd person agreement in the presence of overt nominative 1st person pronoun go away when the attitude holder is the speaker of the utterance. The prediction is borne out, as evident from the following contrast:

- (9) a. Marat [[min_i [pro_i kitte(-m)]] diep(\mathbb{M})] at'tx.
 Marat I leave-PST(-1SG) C tell-PST
 'Marat said that I left.'
- b. Min Maratka [[min_i [pro_i kitte*(-m)]] diep(\mathbb{M})] at'tx.
 I Marat.DAT I leave-PST*(-1SG) C tell-PST
 'I told Marat that I left.'

Another prediction is that “disagreement” effects should occur with a wider range of null subjects. This prediction is also borne out. For example, in the sentence below an overt 2nd person hanging topic is coreferent with a null 1st person subject.

- (10) sin Marat-ka [sin [pro Als-u-nx sü-ä-m] diep(\mathbb{M})] at'-tx-ŋ.
 you Marat-DAT you pro.1SG Als-u-ACC love-ST.IPFV-1SG C tell-PST-2SG
 'You told Marat that you love Alsu.'

The shifted 1st person null subject refers to the attitude holder, which, in the case of (10), is also the hearer. The overt 2nd person hanging topic also refers to the hearer, and thus (10) is a perfectly fine sentence.

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The complement types of attitudes and *de se*: based on the *de se Center shift*

Keywords: *de se center shift*, evidential, attitude predicates, evidential ordering.

Puzzle. This paper deals with what we call *de se center shift*, exemplified in (1) and (2). Consider (1), where the attitude holder does not have the *de se* attitude. Since the long-distance anaphor (LDA) *caki* is obligatorily interpreted as *de se*, (2a) is not felicitous, as expected, but, when the direct perceptive evidential *-te* is attached to the matrix verb (see 2b), and the direct evidential holder (Speaker) knows that the reference of *caki* (i.e. *Res*) is the *author* of the attitude context (as in 1), the sentence becomes felicitous. (Lim 2011, a.o.).

- (1) Pavarotti was listening to a performer singing a song and was impressed by his artistry. He said to John, “I believe this performer is a genius! I could learn a lot from him”. Pavarotti didn’t know that, but John knew that, he was the performer who he was listening to.
- (2) a. *Pavarotti₁-ka *caki*₁-ka chenjay-la-ko mit-ess-ta.
Pavarotti-Nom LDA-Nom genius-Decl-Comp believe-Past-Decl
‘Pavarotti believed that he was a genius.’
- b. Pavarotti₁-ka *caki*₁-ka chenjay-la-ko mit-*te*-la.
‘Pavarotti believes that he was a genius.’ (with the implication that the speaker, John, perceived the direct evidence for Pavarotti’s believing situation)

Two issues. First, we need to explain why *de se Center shift* is possible only with *-te*. Second, we need to explain the violation of the locality condition (Hacquard 2010) in (2b). If *de se Center* corresponds to an attitude holder and the selection of *attitude holder* is constrained by the locality condition, it must be a subject, as in (2a). Then, when *-te* is used, how can the *de se Center* be linked with the speaker, obviating the locality condition?

Proposal. We adopt Anand (2006): *de se* is a *de re* with a special acquaintance relation. However, we assume that, in such acquaintance relation, the *de se Center* recognizes *Res* as an author of the attitude context. Based on this concept of *de se*, we propose that the *de se Center* can be shifted to the direct evidence holder (*the Speaker of the direct utterance context*). This explains how *de se* requirement of LD *caki* can be satisfied in (2b): the direct evidence holder recognizes *Res* as an author of the attitude context in (1).

Types of attitude predicates. Furthermore, we propose that *de se Center shift* is possible only when the complement CP of attitudes is not an ordinary Hintikka styles (CP with *content*, Hacquard 2010). This proposal is based on Anand & Hacquard’s (2013) distinction: ‘attitudes of acceptance’ (AA: *believe, think* and so on) vs. ‘attitudes of non-acceptance’ (AN: *bouletic, directive* verbs). They show that this distinction is correlated to the type of each complement CP: the complement CP of the AN is a contextually determined set of propositions which is ordered via preference relation in proper domains and lacks *doxastic* parts. This proposal is supported by (3), where only AAs license an embedded epistemic modal.

- (3) a. John thinks that Paul has to be innocent. (AA: epistemic reading of *has to* is OK)
b. John wants Paul to have to be the murderer. (AN: epistemic reading of *has to* is out)

Based on Anand & Hacquard (2013), we propose that *-te* changes the type of the matrix attitude verb into an AN. This is supported by the truth/falsity of the embedded proposition. As shown by Moulton (2009), a.o., with AA attitudes can be said to be correct if the content of their complement is true, and false if they are not: as shown in (4)

- (4) a. John believed that Mary went to Paris, which was true/false. (AA)
b. John wanted/ordered/desired that Mary go to Paris, #which was true/false. (AN)

Interestingly, when *-te* is attached to *mit-* ‘believe’ (AA), the truth/falsity of the embedded proposition cannot affect the truth condition, as in (6), since the truth condition of the sentence with *-te* concerns only whether the evidential holder directly perceives the proper evidence or not (see the interpretation of 2b) Without *-te*, *mit-ta* acts as AA as shown in (5).

- (5) Pavarotti₁-ka *ku*(he)₁-ka chenjay-la-ko mit-ess(past)-ta, which was true/false.
(6=2b) Pavarotti₁-ka *caki*₁-ka chenjay-la-ko mit-*te*-la, #which was true/false.

Evidential ordering. A question follows: how can a non-epistemic predicate allow *de se* reading? To answer this, we adopt Portner (2007). He argues that the evidential marker can give a sort of ordering source based on the evidentiality. Given this, we argue that when *-te* is attached to the attitude verbs, the preference ordering for the set of propositions can be derived via *evidential ordering* (like *bouletic*

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ordering of bouletic AN verbs in Anand & Hacquard 2013). Then we can explain how *de se* reading is possible with the complement CP of ANs which lacks *doxastic part*, since we assume that the complement CP is partly responsible for the *de se* acquaintance relation. Specifically, we suggest that the *de se* acquaintance relation can be established with the semantics of *-te* via *context linking*, which is done with the following steps. (i) *-te* is related to the direct Speech context (c^*) (Lim 2011) and is a sort of epistemic modals (Lee 2013). (ii) The *de se* acquaintance relation in the complement CP of AN must be restricted via context (Anand 2006): its context variable must be linked to a proper context. (iii) The *doxastic part* can be provided from the epistemic *-te* mediated by c^* . (iv) As a result, the presence of *-te* can give the proper *de se* acquaintance relation between the direct evidential holder (Speaker) and LDA *caki*. This also explains why *de se Center shift* cannot be possible without *-te*: (i) The AA verbs like *mit-ta* (*believe*) in (2a) must select a CP with *content*. (ii) Then, the attitude holder must be an agent of attitude verbs due to the local event binding (Hacquard 2010). (iii) Furthermore, since there is a *doxastic part* in complement CP of AAs, the *de se Center* must be dependent on the attitude holder.

Explaining *de te*. Our formalization of *de se* acquaintance relation can explicitly account for *de te*, since in *de te* the attitude holder is not a *res*, the *identity* relation cannot explain it, but our formalization can. Furthermore, the separation between the recognizer and *Res* can explain the determination of the *de se/te* type easily. See (7) (*ma*: promissive, *la*: imperative).

- (7) a. John₁-un Mary₂-eykey [PRO₁ Sue-lul towacwu-*ma*]-ko malha-yss-ta.
 John-Top Mary-Dat Sue-Acc help-Prom-Comp say-Past-Decl
 ‘John *promised* Mary to help Sue. (felicitous only with *de se* reading)’
 b. John₁-un Mary₂-eykey [PRO₂ Sue-lul towacwu-*la*]-ko malha-yss-ta
 ‘John *ordered* Mary to help Sue. (felicitous only with *de te* reading)’

Since in (7) a verb of saying is used, the promissive and imperative meanings must be attributed to the directive ending *ma* and *la*, and furthermore, given that the controller of PRO depends on the sentential endings (such as directive endings), it is plausible to assume that *de se/te* type is determined by the ending in the embedded CP. From this, we assume that, the *de se/te Center* is usually linked to an attitude holder, and the *de se/te* acquaintance relation is determined in relation with the nature of the embedded CP (see also Landau 2013).

Supporting evidence. As shown in (9a), the ‘*-ya ha-* (have to)’ in Korean can have the epistemic meaning in the complement CP of the AA verb *believe*.

(8) Scenario: Bill, an amnesiac, watched television with his friend John. They watched a program about a story of the war hero. Seeing the last part of the program, Bill and John were talking about the program since the last scene was not clear to understand. Bill said ‘I believe that the war hero has to be a prisoner since it seems that he cannot escape the Jail’. But John knew that the war hero escaped from the Jail, since he knew the real story of the program in addition to the fact that the war hero is Bill.

- (9) a. Bill₁-I ku₁-ka phulo macimak-ey coyswu-yeya.han-ta-ko mit-ess-ta.
 Bill-Nom he-Nom program ending-Loc prisoner-*has.to*-Decl-Comp believe-Past-Decl
 ‘Bill believed that he must be a prisoner at the last scene of the program.’
 b. #Bill₁-I caki₁-ka phulo macimak-ey coyswu-ye ya han-ta ko mit-te-la .
 Bill-Nom LDA-Nom program ending-Loc prisoner-*has.to*-Decl-Comp believe-*te*-Decl
 ‘Bill must be a prisoner at the last scene of the program.’ (with evidential implication)

However, as shown in (9b), when *de se Center shift* takes place under the scenario (8), the ‘*-ya ha-*’ cannot have epistemic meaning anymore and this buttresses the current proposal based on the types of complement CP.

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On the Evidential Restriction of Subtriggering in Turkish

Synopsis: This paper shows that a Kratzerian-style-possible-world analysis of EVs with an alternative-based theory of F(ree)C(hoice)I(tem) provides a straightforward account for the EV(idential) restriction of the subtriggered Turkish FCI *herhangi bir* (henceforth, *hb*). Just like English *any*, *hb* without a R(elative)C(lause) is grammatical in a possibility statement but ungrammatical in a non-negative episodic statement (see (1)).

- (1) a. *herhangi bir kedi fare kedi avla-**di**/ avla-**miş** (Şener 2011)
 HB cat mice hunt-PAST-**DIR.EV**.-3SG/hunt-PAST-**INR.EV**.3SG
 b. herhangi bir kitab-ı al-abil-ir-sin (Şener 2011)
 HB book-ACC buy-may-PRES-2SG lit. ‘You may buy any book.’

The ungrammaticality of *hb* in (1b) however may be ameliorated by a RC (subtriggering effect; LeGrand 1975; Dayal 1998, *et seq*; (2)). This effect, as observed by Şener (2011) however, is only seen with the indirect EV (INR.EV) *-miş* but not with the direct EV (DIR.EV) *-di* ((2)).

- (2) sokak-ta yaşa-yan herhangi bir kedi fare avla-**miş**/ *avla-**di** (Şener 2011)
 street-LOC live-REL HB cat mice hunt-PAST-**IND.EV**.3SG/hunt-PAST-**DIR.EV**-3SG
 ‘Any cat that lived on this street hunted mice.’

This paper claims that i) EV markings in Turkish may signal the availability of changing the Q(uantificational)-domain of the covert epistemic necessity modal in the subtriggering RC, which is essential for avoiding the potential contradiction in the meaning of an \forall -FCI-statement (Chierchia 2013), and ii) the ungrammaticality of the subtriggered *hb* under DIR.EV *-di* results from the null ordering source *-di* introduces.

Turkish FCI *hb*: Following Chierchia’s (2013) analysis of \forall -FCIs (e.g., *any*), I assume that i) an FCI such as English *any* and Turkish *hb* carries an \exists -force *per se*, ii) the meaning of an FCI-statement like (1b) contains three parts: assertion, S(calar)I(mplicature), and F(ree)C(hoice) implicature, the latter two of which are generated via exhaustification by the operator EXH (see (3a, b)), and iii) the (quasi-) \forall -flavor of *hb* comes from the FC (see (3b)). Crucially, following Chierchia’s (2013) Modal Containment constraint, I assume that the set of worlds W' the modal in question operates on in the SI and the assertion must be contained in that in the FC (W'_{FC} ; i.e., $W' \subset W'_{FC}$) in order to avoid potential contradiction.

- (3) a. LF of (1b): [EXH [*herhangi bir*-D book_i [you may buy t_i]]]
 b. $\exists x \in D[\text{BOOK}(w)(x) \text{ and } \exists w' [w' \in W' \text{ and you buy } x \text{ in } w']] \wedge$ (Assertion)
 $\neg \forall x \in D[\text{BOOK}(w)(x) \rightarrow \exists w' [w' \in W' \text{ and you buy } x \text{ in } w']] \wedge$ (SI)
 $\forall x \in D[\text{BOOK}(w)(x) \rightarrow \exists w' [w' \in W'_{FC}(w) \text{ and you buy } x \text{ in } w']]$ (FC)

Assuming that W' is determined by a modal base f and an ordering source g (Kratzer 2012), I depart from Chierchia 2013 and suggest that the domain change of the modal in the SI and FC is done by suspending some proposition(s) in the ordering source in FC: with the suspension of some proposition(s) in the ordering source $g_x(w)$, the set of worlds the modal operates on in FC may be expanded and include that in the assertion and SI (i.e. $\text{Best}_{g_x(w)}(\cap f_x(w)$; (4)); hence the potential contradiction between the SI and FC is avoided. Note that the availability of suspending the propositions in the ordering source in FC is merely a necessary condition to license an \forall -FCI; a \forall -FCI however can never be licensed if the ordering source cannot be further shrunk.

(4) **(Revised) Modal Containment Constraint** : for any speaker x_e , modal base function $f_{\langle s, \langle \langle s, \rangle \rangle \rangle}$, ordering source function $g_{\langle s, \langle \langle s, \rangle \rangle \rangle}$ and $g'_{\langle s, \langle \langle s, \rangle \rangle \rangle}$ s.t. $W' = \text{Best}_{g_x(w)}(\cap f_x(w))$ and $W'_{FC} = \text{Best}_{g'_x(w)}(\cap f_x(w))$, a \forall -FCI is licensed only if $g'_x(w) \subset g_x(w)$

(where $\text{Best}_{g_x(w)}(\cap f_x(w))$ is the best worlds in the modal base $\cap f_x(w)$ w.r.t the ideal $g_x(w)$)

Turkish EV: Following Şener 2011, I assume that EVs' in Turkish do not contribute to the assertion but merely trigger a presupposition that specifies the type of evidence (direct vs. inferential/reportative) a speaker has for his assertion. Along with Izvorski 1997, Faller 2011, Şener 2011, a.o., I assume that DIR.EV *-di* introduces a visually-perceptual modal base and a null ordering source; on the other hand, IND.EV *-miş* introduces an epistemic modal base (à la Kratzer 2012) and a doxastic ordering source (Faller 2011). The idea behind is that as pointed out by Faller 2011, DIR.EV, unlike IND.EV, do not involve a speaker performing inference.

(5) $\llbracket -di \rrbracket^{f, g, x, w}(p_{\langle s, \triangleright \rangle})$ is defined only if i) $f_x(w) = \{q_{\langle s, \triangleright \rangle} : x \text{ witnessed } q \text{ in } w\}$, ii) $g_x(w) = \emptyset$, and iii) $Best_{g_x(w)}(\cap f_x(w)) \subseteq p$;

$\llbracket -miş \rrbracket^{f, g, x, w}(p)$ is defined only if i) $f_x(w) = \{q_{\langle s, \triangleright \rangle} : q \text{ describes available evidence to } x \text{ in } w\}$,

ii) $g_x(w) = \{q_{\langle s, \triangleright \rangle} : x \text{ believes } q \text{ in } w\}$, and iii) $Best_{g_x(w)}(\cap f_x(w)) \subseteq p$;

if defined, $\llbracket -di/-miş \rrbracket^{f, g, x, w}(p) = 1$ iff $p(w) = 1$

EV and subtriggering: I assume that a subtriggering RC contains a covert epistemic necessity modal \square (Chierchia 2013; (5)-(7)). Along with the assumption that the epistemic modal base has to do with the evidence a speaker has (Kratzer 2012), I assume that with the presence of EVs', the set of worlds \square operates on is determined by the modal base f and ordering source g introduced by the EV marking. The meaning of the subtriggered-*hb*-statement (2) (when defined) is given in (8).

(6) $\llbracket \square \rrbracket^{f, g, x, w} = \lambda p_{\langle s, \triangleright \rangle}. Best_{g_x(w)}(\cap f_x(w)) \subseteq p$, where f and g are determined by the EV markings)

(7) LF of (2): [EXH [-*di/-miş* [[[*herhangi bir-D* cat that \square lived on the street] hunted mice]]]

(8) assertion+SI+FC (where $W' = Best_{g_x(w)}(\cap f_x(w))$ and $W'_{FC} = Best_{g'_x(w)}(\cap f_x(w))$):

$\exists x \in D[\text{CAT}(w)(x) \text{ and } \forall w'[w' \in W' \rightarrow x \text{ lives on the street in } w'] \text{ and } x \text{ hunted mice in } w] \wedge$

$\neg \forall x \in D[\text{CAT}(w)(x) \text{ and } \forall w'[w' \in W' \rightarrow x \text{ lives on the street in } w'] \rightarrow x \text{ hunted mice in } w] \wedge$

$\forall x \in D[\text{CAT}(w)(x) \text{ and } \forall w'[w' \in W'_{FC} \rightarrow x \text{ lives on the street in } w'] \rightarrow x \text{ hunted mice in } w]$

With the presence of IND.EV *-miş*, one may suspend some proposition(s) in the ordering source $g_x(w)$ in FC (i.e., $g'_x(w) \subset g_x(w)$; see (4)) so that the set of worlds \square operates on in the FC may properly contain that in the SI and the assertion; in this case, $Best_{g_x(w)}(\cap f_x(w)) \subset$

$Best_{g'_x(w)}(\cap f_x(w))$, and hence the restrictor of \forall in FC is a subset of that in SI (indicated by underlining). This way the potential contradiction between the SI and FC in (8) is avoided.

With the presence of DIR.EV *-di*, there is no way to avoid the potential contradiction between the SI and the FC in (8) due to the impossibility to suspend any proposition(s) in the ordering source $g_x(w)$. DIR.EV *-di* requires its $g_x(w)$ to be \emptyset (see (5)); this then leaves no room for suspending any propositions in $g_x(w)$ in the FC and hence further leads to the failure to expand the Q-domain of \square . The subtriggered *hb* is therefore ungrammatical with DIR.EV *-di*.

Conclusion: To the extent that the proposal above is on the right track, this paper i) lends support to Chierchia's Modal Containment constraint and shows that the availability of changing the Q-domain of the modal licenser plays a crucial role in \forall -FCI licensing and may be grammatically encoded (e.g., in Turkish, by the EV marking), ii) suggests that Chierchia's (2013) Modal Containment constraint is best cast as the availability to suspend some proposition(s) in the ordering source of the modal in question (see (4)), and iii) shows that EVs are closely connected to epistemic modals (Matthewson *in press*) in the way that an EV-marking may determine the Q-domain of an epistemic modal.

Selected References: CHIERCHIA 2013 *Logic in Grammar: Polarity, Free Choice and Intervention*. DAYAL 1998 *Any as inherently modal*. *L&P* 21:5. FALLER 2011 *A possible worlds semantics for Cuzco Quechua evidentials*. *SALT* 20. IZVORSKI 1997 *The Present Perfect as an Epistemic Modal*. *SALT* 7. KRATZER 2012 *Modals and Conditionals*. MATTHEWSON *in press* *Evidential Restrictions on Epistemic Modals*. ŞENER 2011 *Semantics and Pragmatics of Evidentials in Turkish*. UConn Dissertation.

The Prospective Marker in Turkish: A Unified Treatment

The Turkish verbal suffix $-(y)AcAK$ has had a variety of functions ascribed to it, including future tense, prospective aspect, and non-future nominalization (Cinque 2001, Sezer 2001, Kornfilt 2003). Within the realizational framework of Distributed Morphology (DM), we argue that $-(y)AcAK$ is a single, featurally underspecified Vocabulary Item (VI) with the feature bundle $[+Aspect_{prospective}]$. Underspecification for derived syntactic category allows this VI to be inserted in both finite verbal contexts and nominalizing contexts, without the need to posit two homophonous morphemes with different derivational properties. On the other hand, the specification for prospective aspect permits insertion only in contexts where this aspect is realized. A consequence of this analysis is that $-(y)AcAK$ never realizes future tense, which may be surprising from the perspective of traditional Turkish linguistics. However, the mischaracterization of a prospective suffix as future tense is understandable under a neo-Reichenbachian view of tense and aspect (e.g. Hornstein 1990, Binnick 1991). Under this view, a clause that bears present tense and prospective aspect is $[reference\ time = speech\ time] < event\ time$, while a simple future (i.e., future perfective) is $speech\ time < [reference\ time = event\ time]$. In both cases, speech time precedes event time, and so a “future” interpretation is possible. However, a prospective is also compatible with tenses other than the present. As seen in (1), $-(y)AcAK$ can cooccur with the past tense auxiliary, just as the imperfective suffix $-Iyor$ can:

- | | | | | |
|-----|----|--|----|---|
| (1) | a. | <p>çalış-ıyor
work-IMPERFECTIVE
‘He is working.’</p> | b. | <p>çalış-ıyor-Ø-du
stem-IMPERFECTIVE-COP-PAST
‘He was working.’</p> |
| (2) | a. | <p>çalış-acak
work-PROSP
‘He’s going to work.’</p> | b. | <p>çalış-acak-Ø-tı
work-PROSP-COP-PAST
‘He was going to work.’</p> |

If one assumes Cinque’s (2001) cartography, in which $Tense_{past}$ is distinct and structurally higher from $Tense_{future}$, this cooccurrence is compatible with a future tense analysis of $-(y)AcAK$. However, on a Neo-Reichenbachian approach, data like (2b) would be ruled out on semantic grounds if $-(y)AcAK$ were truly realizing future tense: Since we take Tense nodes semantically to specify the relation between speech and reference times, competing specifications even from separate nodes would still yield infelicity. Considered on its own, Cinque’s cartography is also compatible with a prospective analysis of $-(y)AcAK$, since $Aspect_{prospective}$ is also lower than $Tense_{past}$. Based on its basic distribution and on the interpretive facts presented below, we take $-(y)AcAK$ to realize a category distinct from tense in this configuration. The most obvious option is aspect, based on its interpretation and by analogy with the imperfective suffix $-Iyor$.

First, while a prospective interpretation is always possible with $-(y)AcAK$, in several cases a future tense reading is impossible. Next, embedded clauses of the so-called ‘factive’ or indicative type are formed with a nominalizing suffix in the position traditionally designated as TAM-I in finite contexts. There are two suffixes used for this function: $-DIK$ and $-(y)AcAK$. Clauses formed with $-DIK$ are ambiguous with regard to tense and aspect.

- | | | | |
|-----|--------------------------|------------------------------------|--|
| (3) | Türkiye-de
Turkey-LOC | çalış-tığ-ın-ı
work-NOM-3SG-ACC | söyle-di
say-PAST
‘He said that he works/worked/is working/was working in Turkey.’ |
|-----|--------------------------|------------------------------------|--|
- Impossible: ‘He said that he is going to work/was going to work in Turkey.’

Clauses formed with $-(y)AcAK$, in contrast, are ambiguous with regard to past or present tense, but have a consistent prospective aspectual interpretation. It is therefore clear that the distinction between $-DIK$ and $-(y)AcAK$ is not non-future versus future, but non-prospective versus prospective.

- (4) Türkiye-de çalış-acağ-ın-ı söyle-di
 Turkey-LOC work-NOM.PROSP-3SG-ACC say-PAST
 ‘He said that he is/was going to work in Turkey.’

Impossible: ‘He said that he works/worked/is working/was working in Turkey.’

Finally, the prospective quality of -(y)AcAK is most strikingly evident in temporal clauses. When a -DIK clause occurs with the post-position *zaman* ‘time,’ the result is a *when*-clause that is ambiguous for tense and aspect. What is noteworthy is that a future tense reading is available (5c).

- (5) a. Mehmet-le buluş-tuğ-unuz zaman nere-ye git-ti-niz?
 M.-with meet-NOM-2PL time where-DAT go-PAST-2PL
 Past interp.: ‘When you met with Mehmet, where did you go?’
 b. Mehmet-le bul-uş-tuğ-unuz zaman nere-ye gid-iyor-sunuz?
 M.-with meet-NOM-2PL time where-DAT go-IMPERFECTIVE-2PL
 Present (habitual) interp.: ‘When you meet with Mehmet [as you habitually do], where do you go?’
 c. Mehmet-le bul-uş-tuğ-unuz zaman nere-ye gid-ecek-siniz?
 M.-with meet-NOM-2PL time where-DAT go-PROSP-2PL
 Future interp.: ‘When you meet with Mehmet [next week, next month, etc.], where are you going to go?’

When -(y)AcAK appears with *zaman*, however, the reading is ambiguous for tense—both future reference (6a) and past reference (6b) are possible—but prospective meaning is constant across interpretations.

- (6) a. Mehmet-le bul-uş-acağ-ımız zaman haber ver-in, ben de gel-e-yim.
 M.-with meet-PROSP-2PL time news give-2PL 1SG too come-OPT-1SG
 Future interp.: ‘When you’re going to/about to meet with Mehmet, let me know, I’ll come too.’
 b. Mehmet-le bul-uş-acağ-ımız zaman niçin haber ver-me-di-niniz?
 M.-with meet-PROSP-2PL time why news give-NEG-PAST-2PL
 Past interp.: ‘When you were going to/about to meet with Mehmet, why didn’t you let me know?’

In sum, on a neo-Reichenbachian approach, -(y)AcAK must be analyzed as a prospective marker in non-finite contexts, and in finite contexts where it is followed by an overt tense marker. It is potentially ambiguous between future tense and prospective aspect only in finite contexts where no overt tense marker follows it. In other words, it is possible to analyze it as a future marker only in a context where the future and the prospective are difficult to distinguish. A unified prospective analysis of -(y)AcAK is clearly preferable. The interesting consequence of this is that Turkish has no future tense marker.

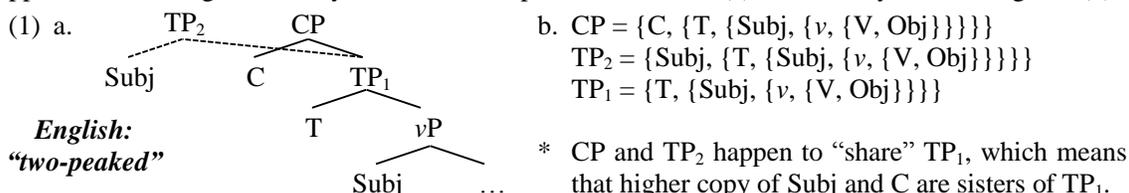
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Some Consequences of Simplest Merge and ϕ -Defectiveness in Japanese

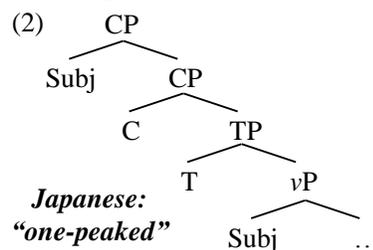
Synopsis: Various pieces of evidence have converged on the hypothesis that subjects in Japanese are within the CP domain (Saito 2011; also Ueda 2003 and Hasegawa 2005, a.o.). A natural question arising here is its potential relationship with the lack of *Subject Condition* in Japanese. In this paper, we will show under the Minimalist Program that this hypothesis correctly accounts for transparency of subjects. In so doing, we will explore some consequences of *simplest Merge* (i.e. Merge $(\alpha, \beta) \Rightarrow \{\alpha, \beta\}$) advocated by Epstein, Kitahara, and Seely (EKS 2012, 2013) and ϕ -defectiveness in Japanese (i.e. the absence of ϕ -feature agreement/C-T inheritance) defended by Saito (2011). More specifically, three cross-linguistic generalizations can be deduced naturally from these two general assumptions: (i) subjects are opaque for extraction in English whereas transparent in Japanese (Lasnik and Saito 1992), (ii) the Comp-Trace effect does not exist in Japanese, as opposed to English (Ishii 2004), and (iii) adjuncts, unlike subjects, are basically opaque for extraction universally (Stepanov 2007). From the theoretical perspective, our idea is minimalist in nature in that no *ad hoc* language/construction-specific mechanisms are stipulated to capture both principled and parametric aspects of syntax.

Deriving “One-Peaked” Structure from ϕ -Defectiveness: EKS (2012, 2013) argue that Merge should be defined as simplest and strictly binary form; Merge $(\alpha, \beta) \Rightarrow \{\alpha, \beta\}$, which crucially cannot perform any “countercyclic” structure building as assumed for covert movement in early minimalism (Chomsky 1995). For example, under simplest Merge, subject raising to [Spec, TP] cannot generate $\{C, \{\text{Subj}, \{T, \{\text{Subj}, \{v, \{V, \text{Obj}\}\}\}\}\}\}$ because, given C-T feature inheritance of unvalued ϕ -feature and incidental edge feature, Internal Merge of Subj with TP is countercyclic due to prerequisite External Merge of C. More precisely, after creating $\{C, \{T, \{\text{Subj}, \{v, \{V, \text{Obj}\}\}\}\}\}$, its subset $\{T, \{\text{Subj}, \{v, \{V, \text{Obj}\}\}\}\}$ cannot be replaced/substituted countercyclically by $\{\text{Subj}, \{T, \{\text{Subj}, \{v, \{V, \text{Obj}\}\}\}\}\}$ formed via subject raising. Alternatively, EKS (2012, 2013) maintain that “countercyclic” application of Merge inevitably results in “two-peaked” structure (a), or formally intersecting sets (b).



Furthermore, EKS (2012, 2013) assume that “two-peaked” representations are semantically not interpretable when two peaks are sent to the semantic component together (i.e. each peak corresponds to single semantic value). Their solution to this problem is to Transfer one peak, TP₂, if “two-peaked” structures are generated. From this, cyclic Transfer of TP as complement of phase-head C follows.

However, the same is not true for Japanese. In this respect, Saito (2011) independently shows that, given the absence of ϕ -feature agreement (Kuroda 1988), subject raising in Japanese is to [Spec, CP] (Ueda 2003; Hasegawa 2005) because edge feature cannot be inherited to T without “pied-piping” by ϕ -feature and thus remains on C. Since no “countercyclic” application of Merge does apply here, “one-peaked” structures are created in Japanese as a natural extension of Saito (2011) to EKS (2012, 2013).



The Lack of Subject Condition Deduced: First, the asymmetry between English and Japanese in opacity of subjects for extraction (Lasnik and Saito 1992: 42-43) naturally falls under the present idea.

- (3) a. *Who_i does [_{NP} the claim that Mary likes *t*₁] upset Bill?
 b. ?Dono hon-o₁ Mary-ga [_{NP} John-ga *t*₁ katta koto-ga] mondai-da to omotteiru no?
 which book-acc Mary-nom John-nom bought fact-nom problem-cop C think
 ‘Which book is it that Mary thinks that the fact that John bought it is a problem?’

Although both examples equally violate Complex NP Constraint, (3a) is worse than (3b), which indicates importantly for the purpose here that only English shows Subject Condition. EKS (2012) deduce opaque subjects in English as a consequence of cyclic Transfer of TP₂ to reduce “two-peaked” structure (i.e. subjects in English immediately become “inaccessible” via Transfer). In contrast, as

proposed above, subjects in Japanese raise to [Spec, CP] given the absence of ϕ -feature agreement and C-T inheritance of edge feature, hence generating stable “one-peaked” representation. Since subjects in Japanese are on phase edge (= “escape hatch”), we propose that they are transparent for extraction, even though TP is Transferred in some way (e.g. “countercyclic” V-T head-movement).

Significantly, the present proposal also explains why [Spec, CP] is transparent in Japanese but opaque in English. Consider the following example from Lasnik and Saito (1992: 102).

- (4) a. ??Who₂ do you wonder [_{CP} [how many pictures of t_2]₁ John saw t_1]?
 b. ??Who₂ do you wonder [_{CP} [how many pictures of t_2]₁ t_1 are on sale]?

Despite the lack of violation of Complex NP Constraint and the same structural position [Spec, CP] shared, (4) is more deviant than (3b), which suggests that some principle is violated in the former. The crucial difference between these two cases lies on the relevant trigger of movement to [Spec, CP]; only edge feature is involved in Japanese (3b), whereas both *wh*-feature and edge feature are operative in English (4). Now we propose that the refined version of *A-over-A* principle/Minimality ‘An element headed by an LI H cannot move out of a phrase headed by H’ (Fukui 1999; Narita 2011) is in force here; movement of the matrix *wh*-phrase *who* out of the embedded *wh*-phrase in (4) violates *wh*-over-*wh* principle, while pure edge-feature-driven subject does not block *wh*-movement in (3b).

The Lack of Comp-Trace Effect Deduced: Second, Ishii (2004) observes that there is no Comp-Trace effect in Japanese, unlike English, as shown below.

- (5) a. *Who₁ do you think that t_1 saw Bill?
 b. [OP₁ [John-ga [t_1 Mary-ni hanasi kaketa to] omotteiru] yori] ookuno hito-ga Susy-to hanasita.
 John-nom Mary-dat talked to C think than more people-nom Susy-dat talked
 ‘More people talked with Susy than John thinks talked to Mary.’

EKS (2013) argues that the structural position of both [Spec, TP₂] and C are defined by *exactly* the same occurrence; i.e. a derivational sister of TP₁ {T, {Subj, { v , {V, Obj}}}}. Thus, when [Spec, TP₂] is a trace/lower copy and hence must be deleted at the phonological component, C also has to be phonologically deleted because syntax cannot distinguish [Spec, TP₂] and C, hence deriving the Comp-Trace effect (where C is not silent). In contrast, while Ishii (2004) assumes that subjects in Japanese remain on [Spec, v P], the absence of Comp-Trace effect in Japanese is deduced under the “CP-subject” hypothesis because subjects on [Spec, CP] are structurally not the same as C.

Adjunct Condition Redux: Finally, the fact that adjuncts, unlike subjects, are robustly opaque for extraction (Stepanov 2007) is also explained in terms of the existence of agreement. Assuming that adjuncts generally do not enter into ϕ -feature agreement and are introduced via Late-Merge (Lebeaux 1988; Stepanov 2001), “countercyclic” Merge of adjuncts generates “two-peaked” structure and thus they become opaque for extraction due to cyclic Transfer of adjuncts.

- (6) a. *What₁ did John get angry because Mary bought t_1 ?
 b. *Dono hon-o₁ John-ga Mary-ga t_1 katta kara okotta no?
 which book-acc John-nom Mary-nom bought because got angry
 ‘Which book did John get angry because Mary bought?’

Nevertheless, when adjuncts are resistant to Late-Merge due to participation in agreement, they are predicted to be transparent for extraction (Borgonovo and Neeleman 2000; Miyamoto 2012).

- (7) a. What₁ did you arrive whistling t_1 ?
 b. Kinoo toochakushita-yori kyou gakusei-ga t oozei toochakushita.
 yesterday arrived-than today students-nom many arrived
 ‘Today more students arrived than arrived yesterday.’

Conclusion: As a theoretical implication, our analysis strongly suggests that locality constraints investigated here such as Subject/Adjunct Condition must be captured in terms of not only structural position but also *feature composition* in natural language (Rizzi 2013). We leave this issue for future.

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Remarks on the Case-Licensing of Nominative Objects in Japanese

Synopsis: This paper provides a new analysis of nominative objects in Japanese with respect to the Case-licensing. Our analysis favors an approach where the Case of the nominative object is licensed by T over an approach under which stative predicates license nominative Case and shows that (un)availability of nominative/accusative Case alternations of objects comes from unordered applications of the syntactic operations.

Case-Licensing Paradox: It is well known that objects are marked with nominative Case when a verb itself is a stative verb such as *wakar-u* ‘understand’ and objects can be marked with either *ga* (nominative Case marker) or *o* (accusative Case marker) when a stative morpheme such as a potential morpheme *-rare* (with allomorphs *-re*, *-e*) ‘can’ is attached to a non-stative (agentive) verb as illustrated in (1) (Kuno 1973).

- (1) a. stative
 Taro-ga furansugo-ga/*o wakar-u koto
 Taro-NOM French-NOM/*ACC understand-PRES that
 ‘Taro understands French.’
- b. non-stative (agentive)
 Taro-ga furansugo-*ga/o hanas-u koto
 Taro-NOM French-*NOM/ACC speak-PRES that
 ‘Taro speaks French.’
- c. stative (potential) – non-stative (agentive)
 Taro-ga furansugo-ga/o hanas-e-ru koto
 Taro-NOM French-NOM/ACC speak-POT-PRES that
 ‘Taro can speak French.’

Nominative objects can also appear in Japanese *tough*-constructions as in (2).

- (2) a. non-stative (agentive)
 kandosita kyaku-ga sono yoru-*ga/o wasure-na-i koto
 impressed guest-NOMthat night-*NOM/ACC forget-NEG-PRES that
 ‘Impressed guests do not forget that night.’
- b. stative (*tough*) – non-stative (agentive)
 kandosita kyaku-ga sono yoru-ga/o wasure-niku-i koto
 impressed guest-NOMthat night-NOM/ACC forget-hard-PRES that
 ‘It is hard for impressed guests to forget that night.’

Interestingly, if the sentences like (1a) and (2b) are embedded in the causative constructions, objects must be marked with accusative Case as in (3).

- (3) a. non-stative (causative) – stative
 Hanako-ga Taro-ni fransugo-*ga/o wakar-ase-ta
 Hanako-NOM Taro-DAT French-*NOM/ACC understand-CAUS-PST
 ‘Hanako made Taro understand French.’
- b. non-stative (causative) – stative (*tough*) – non-stative (agentive)
 saikô-no o-motenas-i-ga o-kyaku-sama-ni sono yoru-*ga/o
 best-GEN HON-service-NOM HON-guest-APP-DAT that night-*NOM/ACC
 wasure-nikuku-sase-masu
 forget-hard-CAUS-PRES(POLITE)
 ‘Our fantastic service makes it hard for guests to forget that night.’

If the Case of the nominative object comes from a stative verb, the objects should be able to be marked with nominative Case in (3) because nothing intervenes between a head of stative verbs and the objects, contrary to fact. However, if the Case of the nominative object comes from T, then unavailability of nominative marked objects in (3) is easily accounted for because accusative Case-licensing heads intervene between T and the objects in (3). Surprisingly, however, if such a causative construction is further embedded in the potential construction, nominative marked objects will be once again available as in (4).

- (4) stative (potential) – non-stative (causative) – stative
 Hanako-ga Taro-ni fransugo-ga/o wakar-ase-rare-ta
 Hanako-NOM Taro-DAT French-NOM/ACC understand-CAUS-POT-PST
 ‘Hanako made Taro understand French.’

These data tell us that objects can be marked with accusative Case whenever a non-stative verb is in the predicate. (4) shows that stative predicates are in some ways related to nominative Case-licensing but (3) indicates that they cannot be the nominative Case-licensors.

Analysis: The analysis is based on Chomsky's (2008) mechanism of *feature inheritance* (f-inheritance). If derivation proceeds in a phase-by-phase manner in Japanese complex predicate constructions, then objects must be obligatorily marked with accusative Case in (1c), (2b), and (4), contrary to fact. Based on Chomsky's (2001:12) definition of phases, I classify phases into at least two types of phase units: "argument structure" related phases, such as v-V, and "force indicators" related phases, such as C-T. In this framework, I propose that phases are best treated as a single unit when the same types of phases successively occur and that each phase is responsible for its operations but the computation of the same types of phases must be done only once when the entire phase unit is determined. Thus, each local phase in Japanese complex predicate constructions does not induce any syntactic operations individually.

Case Alternation: Under the phase theory, all the operations are driven by the phase head. At the level of the phase, operations are unordered with respect to each other. Under the proposed analysis, the computation of the same types of phases must be done only once. Hence, we have two phases in a single phase unit in (1c) when we compute the phase unit. In this phase cycle, there are two f-inheritances that need to be applied, namely, the f-inheritance from the head of the stative predicate to its complement and from the head of the agentive verb to its complement. I propose that a head of stative predicates bears a [STATIVE] feature, which makes all other phase heads in the complement of the stative predicate 'stative,' namely, non-Case-licensing heads, via f-inheritance. The application of the multiple f-inheritances derives multiple derivations and solves the Case-licensing paradox.

Given the assumptions above, when the f-inheritance from the head of the stative predicate to its complement precedes the f-inheritance from the head of the agentive verb to its complement, the head of the agentive verb loses its Case-valuation property due to the f-inheritance of [STATIVE] feature. Thus, at the next phase level, namely C-T, nominative Case is valued on the object by C-T.

When the f-inheritance from the head of the agentive verb to its complement precedes the f-inheritance from the head of the stative predicate to its complement, the feature that is relevant to Case-valuation is transmitted to the complement of the head of the agentive verb so that Case-valuation takes place. When the f-inheritance from the head of the stative predicate to its complement occurs, there is nothing left to 'absorb' in its domain because Case-valuation has already taken place so that accusative Case is valued on the object. Thus, the nominative/accusative Case alternation in (1c) can be accounted for if we assume that phases in Japanese complex predicate construction are treated as a single unit.

Obligatory Case-Licensing: This proposed analysis explains why objects are obligatorily marked with accusative Case in (3). Since the head of the causative verb is the topmost phase head, in any ordered applications of f-inheritance, Case-valuation takes place without fail because the head of the stative predicates can only stativize the phase heads in its complement domain. No unvalued Case feature of the object will be left for the next phase level and hence no nominative objects occur.

Consequence: Our proposed analysis captures the following grammatical difference in (5).

- (5) a. passivized non-stative (causative) – stative (*tough*) – non-stative
 o-kyaku-sama-wa saikô-no o-motenasî-niyotte sono yoru-ga/o
 HON-guest-APP-TOP best-GEN HON-service-by that night-NOM/ACC
 wasure-nikuku-sase-rare-masu
 forget-hard-CAUS-PASS-PRES(POLITE)
 Lit. 'Guests are affected by our fantastic service's making that night hard to forget.'
- b. passivized non-stative (causative) – non-stative
 Taro-ga Hanako-niyotte furansugo-*ga/o hanas-ase-rare-ta
 Taro-NOM Hanako-by French-*NOM/ACC speak-CAUS-PASS-PST
 'Taro was made to speak French by Hanako.'

In (5a-b), the heads of the agentive verb can value accusative Case in the cycle of the relevant phase unit. Thus, we observe accusative Case marked objects in (5a-b). Unlike (5b), the phase unit in (5a) contains the head of the stative predicate that can stativize the head of the agentive verb. Thus, we have a derivation where unvalued Case feature of the object needs to be valued at the next phase level (C-T). Hence, the nominative object occurs in (5a).

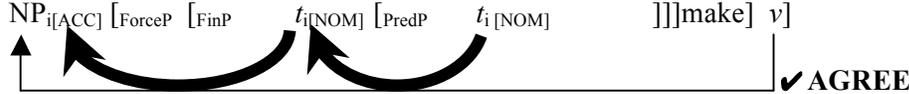
References: Chomsky, Noam. 2001. Derivation by Phase. *Ken Hale: A Life in Language*, ed. by Michael Kenstowicz, 1-52, MIT Press, Cambridge, MA.

Chomsky, Noam. 2008. On Phases. *Foundational Issues in Linguistic Theory: Essays in Honor of Jean-Roger Vergnaud*, ed. by Robert Freidin, Carlos P. Otero and Maria Luisa Zubizarreta, 133-166, MIT Press, Cambridge, MA.

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On the Ban on Embedded Nominative Major Subjects

The moved major subject is accessible from the matrix v after movement into the matrix VP. The major subject then must assign accusative Case to the moved major subject in accordance with (8). Case-revision takes place here (cf. Bruening 2001, Hiraiwa 2005, Şener 2008).

- (9) $[_{vP} [_{VP} NP_{i[ACC]} [_{ForceP} [_{FinP} t_i[NOM]} [_{PredP} t_i[NOM]}]]]make] v]$

✓ AGREE

Evidence for Movement The analysis predicts that movement of the accusative major subject leaves a trace in the complement. (10) bears out this prediction (cf. Kikuchi and Takahashi 1991):

- (10) * $[_{CP} t_j \text{ sagyoo-o hazime-yasuku}]_i \text{ Mary-ga kono teeburu}_j\text{-o } t_i \text{ si-ta.}$
 work-ACC begin-easy Mary-NOM this table-ACC make-PST
 ‘Mary made this table easy to begin work on.’

When the complement is scrambled to the sentence-initial position, the resulting example is ungrammatical. This case is ruled out as a violation of the Proper Binding Condition (Fiengo 1974, Saito 1989), which prohibits the presence of unbounded traces. As the scrambled complement contains the trace of the moved major subject, (10) is ungrammatical.

Movement into the Theta Position The analysis predicts that the accusative major subject should behave as the matrix object by moving into the matrix theta position. This prediction is borne out by the interpretation of *ippai* ‘many’, which is a diagnostic for direct internal arguments (Kishimoto 2005):

- (11) $\text{Gakusee-ga puramoderu-o heya-de ippai tukut-ta.}$
 student-NOM plastic model-ACC room-in many make-PST
 ‘Students made a lot of plastic models in the room.’

The event denoted by the verb is measured out by the amount of plastic models (direct internal argument) (cf. Tenny 1994). Significantly, the accusative major subjects also behave like direct internal arguments of the matrix predicate *si* ‘make’ (cf. Matsuoka 2010).

- (12) $\text{Mary-ga ippai teeburu-o sagyoo-o hazime-yasuku si-ta.}$
 Mary-NOM many table-ACC work-ACC begin-easy make-PST
 ‘Mary made many tables easy to begin work on.’

The accusative major subject *teeburu* ‘table’ measures out the event of making. This suggests that the accusative major subject is interpreted as the direct internal argument of the matrix verb *si* ‘make’. (10) and (12) suggest that the accusative major subject undergoes movement into the matrix theta position.

Further Evidence The analysis also predicts that when there are two major subjects, one of them should be able to retain its nominative Case. This is so because only one major subject is required to move into the matrix theta position. The tough construction can have two major subjects (cf. Kuroda 1986):

- (13) $\text{Kono teeburu-ga sumi-ga (John-nitotte) sagyoo-o hazime-yasu-i.}$
 this table-NOM corner-NOM (John-for) work-ACC begin-easy-PRES
 ‘The corners of this table are easy (for John) to begin work on.’

When we embedded this sentence as a complement of *si* ‘make’, we obtain the following example:

- (14) $\text{Mary-ga kono teeburu-o/*ga sumi-ga sagyoo-o hazime-yasuku si-ta.}$
 Mary-NOM this table-ACC/*NOM corner-NOM work-ACC begin-easy make-PST
 ‘Mary made the corners of this table easy to begin work on its corner.’

While the higher major subject must get accusative Case, the lower one can retain nominative Case:

- (15) $[_{vP} [_{VP} \text{ this table}_{i[ACC]} [_{ForceP} [_{FinP} t_i [_{PredP} t_i \text{ work}_{[NOM]}]]]make] v]$

AGREE

I assume that both of the major subjects are located in the Spec of PredP. While the higher major subject obligatorily moves to the matrix VP, the lower major subject stays in the complement clause and gets nominative Case. The lower major subject is in the spell-out domain (recall that FinP is a phase) so that the lower major subject is not accessible from the matrix v . **Selected References:** Koizumi, M. 1994. Nominative objects: The role of TP in Japanese. *FAJL* 1. Saito, M. 1982. *Case marking in Japanese: A preliminary study*. Ms., MIT. Tada, H. 1992. Nominative objects in Japanese. *JJL* 14. Takezawa, K. 1987. *A configurational approach to case-marking in Japanese*. Ph.D diss., U of Washington.

Zibun-no Eventive Nominal and Its Binding Phenomena in Japanese Psych-Causative Verb Constructions

This paper explores the binding phenomena of Japanese reflexive *zibun* in *zibun-no* + Eventive Nominal (EN) phrases. We specifically consider Japanese psych-causative verb constructions which have the *zibun-no* EN phrase in their subject positions.

It is generally assumed that the reflexive *zibun* has the following three properties : (i) C-command formulation is needed: e.g., *[*Taro_i-no titioya*]-*wa zibun_i-no seikaku-wo kirat-tei-ru*, (ii) The antecedent is subject-oriented and, when *zibun* appears in an embedded clause, long distance binding is possible, as well as short distance binding: e.g., [*Taro_i-wa [Hanako_j-ga zibun_{i/j}-no seikaku-o kirat-tei-ru] to omot-tei-ru*]. (Mihara & Hiraiwa 2006: 64-65), and (iii) The topic of the preceding discourse can control *zibun*: e.g., Discourse topic TARO_i: *Hanako ga zibun_i no puropoozaru o uketukenakatta koto ga ohukuro o gakkarisasetta* (Kuno 1986: 53). Japanese EN is defined as a kind of noun which has an argument structure and it is realized in a phrase; e.g., in *John-no ronbun-no hookoku*, ‘John’s report of the paper’ (Kishimoto 2006: 773), the noun *hookoku* is an EN, since it takes *John* as an external argument and *ronbun* as an internal argument.

There are, however, some *zibun-no* EN phrases which do not follow the properties above:

- (1) Zibun_i-no uwasa-ga Taro_i-o odorok-ase-ta. ‘The rumor about himself_i surprised Taro_i.’
self-GEN rumor-NOM Taro-ACC be surprised-CAUSE-PAST

Zibun in (1) is bound by *Taro* cataphorically. Furthermore, *zibun* in (2) below appears to have its antecedent logophorically: i.e., the speaker of the sentence, though it has the same structure as that of (1).

- (2) Zibun_{?*i/j}-no iken-ga Taro_i-o odorok-ase-ta. ‘The opinion of self_{?*i/j} surprised Taro_i.’
self-GEN opinion-NOM Taro-ACC be surprised-CAUSE-PAST

The purpose of this paper is to make clear the following points: *Zibun-no* EN can be divided into two types, and each type has its own syntactic structure. With the two different structures, we can explain the irregular *zibun* binding phenomena in Japanese psych-causative constructions.

First, we will classify *zibun-no* ENs based on agentivity of *zibun* in the phrases.

- Class 1: ‘*zibun*’ can be read as Agent in an EN phrase.

- (3) *zibun-no iken*, ‘my opinion,’ *zibun-no ensou*, ‘my play,’ *zibun-no kettei*, ‘my decision,’ *zibun-no engi*, ‘my performance,’ *zibun-no katuyaku*, ‘my remarkable activity,’ etc.

- Class 2: ‘*zibun*’ can be read as Non-Agent (i.e., Theme/Experiencer) in an EN phrase.

- (4) *zibun-no uwasa*, ‘rumor about myself,’ *zibun-no hyouban*, ‘my reputation,’ *zibun-no seityo*, ‘my development,’ *zibun-no sippai*, ‘my failure,’ *zibun-no seikou*, ‘my success,’ etc.

Next, to see if the intuitive classification above is correct, we will apply to it the following two tests:

- Test 1: Ordering constraints: Kishimoto (2006: 797) notes that when a bare locative adjunct occurs between an internal argument and the verb, the syntactic nominal becomes unacceptable.

- (5) John-no seito-no (?*kyoositu-no) sikari-kata
John-GEN student-GEN classroom-GEN scold-way
‘the way of John’s scolding the students (in the classroom)’ (Kishimoto 2006: 797)

- (6) a. Kinou-no kaigi-no zibun-no uwasa, ‘the rumor of myself at yesterday’s meeting’
b. #Zibun-no kinou-no kaigi-no uwasa

- (7) a. Kinou-no kaigi-no zibun-no iken, ‘my opinion at yesterday’s meeting’
b. Zibun-no kinou-no kaigi-no iken, ‘my opinion at yesterday’s meeting’

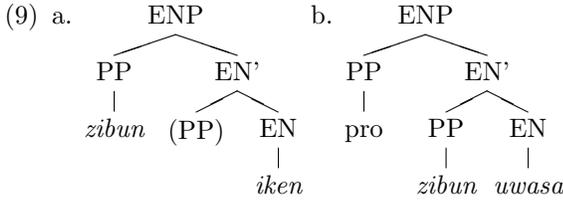
The locative adjunct, *kinou-no kaigi-no*, cannot be situated between *zibun-no* and *uwasa* in (6b).

- Test 2: Adjectival modification: When *zibun* in *zibun-no* EN functions as Agent, it can be modified with an intentional adjective like *sintyouna*, ‘considered.’

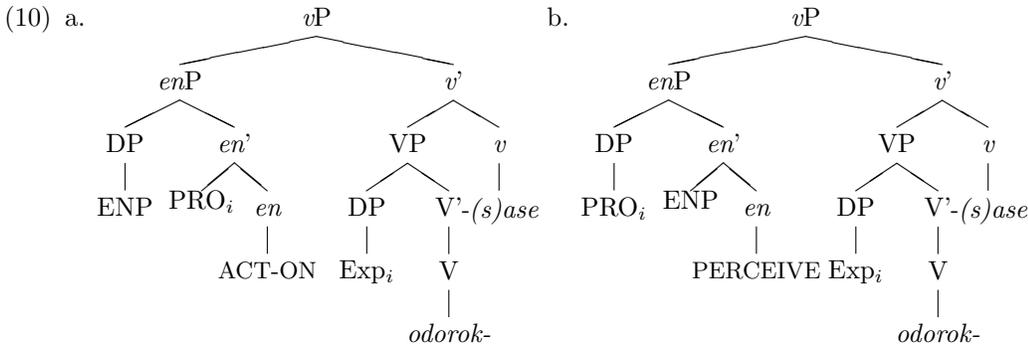
- (8) a. Sintyouna zibun-no iken, ‘my considered opinion’
b. #Sintyouna zibun-no uwasa, ‘#my considered rumor’

(8b) sounds anomalous when we put the restriction of an intentional adjective on the *zibun-no* EN.

After having verified the classification with the two tests above, we realize *zibun* in *zibun-no iken* in SpecENP, while *zibun* in *zibun-no uwasa* in CompENP.



In addition, *odorok-ase-*, ‘surprise,’ for example, can read as a direct causative verb when the cause event came to Experiencer (Exp) out of the blue and then he/she got surprised, whose structure is shown in (10a). On the other hand, it can be an indirect causative verb when Exp perceived a cause event and the perception triggered the *odorok-* emotion, whose structure is shown in (10b). I hypothesized that such semantic characteristics are the presuppositions which Japanese psych-unaccusative verb entails, since we could not say **Taro-ga hitorideni odoroi-ta*, ‘*Taro got surprised by himself.’ (cf. *Kouri-ga hitorideni toke-ta*, ‘The ice melted naturally’ is perfect.) Each presupposition is reflected in the subject position of the causatives in (10) as an *enP* head and its arguments. (cf. McCawley (1976: 198), Pustejovsky (1995: 214), Bando (2012: 223))



Now, let us combine the two types of *odorok-ase* with *zibun-no uwasa* and *zibun-no iken*, respectively.

• *zibun-no uwasa* + *odorok-ase-*

- (11) a. [_{vP} [_{enP} [_{ENP} *pro* [_{EN'} **zibun** [_{EN} *uwasa*]]] *PRO_i* ACT-ON] [_{VP} *Exp_i* *odorok-*] -(s)ase]
 b. [_{vP} [_{enP} *PRO_i* [_{ENP} *pro* [_{EN'} **zibun** [_{EN} *uwasa*]]] PERCEIVE] [_{VP} *Exp_i* *odorok-*] -(s)ase]

Zibun can have its antecedent only in the construction of (11b), since in the structure of the subject *zibun* is c-commanded by *PRO_i* (=Exp_i) and *PRO_i* occupies the subject position in *enP*, which means it satisfies the *zibun* binding properties of (i) and (ii) above. The construction of (11a) does not provide any concrete antecedent for *zibun*, since structurally it is bounded by *pro*, and *pro* represents an unspecified number of people.

• *zibun-no iken* + *odorok-ase-*

- (12) a. [_{vP} [_{enP} [_{ENP} **zibun** [_{EN} *iken*]]] *PRO_i* ACT-ON] [_{VP} *Exp_i* *odorok-*] -(s)ase]
 b. [_{vP} [_{enP} *PRO_i* [_{ENP} **zibun** [_{EN} *iken*]]] PERCEIVE] [_{VP} *Exp_i* *odorok-*] -(s)ase]

Zibun in (12a) occupied SpecENP in the subject, which means it is in the highest position and nothing c-commands *zibun* in the structure. Thus, *zibun*, which can not look for its antecedent by way of either the property (i) or the property (ii), searches for the possibility of (iii) and becomes logophoric. *Zibun* in (12b) has to move to Spec_{enP} since it bears Agentivity, but the position has already been occupied with *PRO_i*. Thus, this combination is not possible.

Spears (2004) and Nishigauchi (2009) argue that there are syntactic projections bearing pragmatically-relevant features. Based on their frameworks, we assume that there is a syntactic projection for Point of View (POV) above IP, and its Spec position is occupied by *pro* whose referential value is determined by the speaker.

- (13) ...Speaker...[_{POVP} *pro* [_{IP} [_{vP} [_{enP} [_{ENP} **zibun** [_{EN} *iken*]]] *PRO_i* ACT-ON] [_{VP} *Exp_i* *odorok-*] -(s)ase]-ta] _{POV}

According to Nishigauchi (2009), the speaker controls *pro* in the SpecPOVP and *pro* locally binds *zibun* in vP. Finally, *zibun* in (13) can have its antecedent once a POV projection is developed in the construction. (References go into Attachment file.)

Two Types of Clefts in Japanese: Base-generating vs. Fronting Nominalized Clauses

1. Background and Proposal

Since Hoji's (1987) proposal that Japanese focus constructions with a nominalized clausal wa-phrase (henceforth NML-Cl wa-phrase) can be analyzed in parallel to (pseudo-)clefts in English, various interesting observations have been accumulated in terms of focus/presupposition, nominalization, and potential links with other constructions. This paper argues, based on the novel data, that Japanese allows two types of clefts in (1a, b): (1a) base-generates a NML-clause in the topic position and a full clause (with some portion being elided later) in the pre-copular position, as suggested by Cho et al. (2008); (1b) involves fronting a NML-clause α (a projection of a nominalizer *no*) originated in the pre-copular position, as proposed in Hiraiwa & Ishihara (2002, 2012) [henceforth H&I]. (Specific details are different from H&I and Cho et al.)

(1) Two types of clefts (no: nominalizer, wa: topic marker, da: focus-marking copular verb)

a. Base-generated NML-CL topic:

[_{TopP} [α [_{TP} e]-no]-wa [_{TP} [_{FocP} XP-case [~~[- α [_{TP} e]-no]~~] da]] T]]

b. Fronted NML-CL topic:

[_{TopP} [α [_{TP} e]-no]-wa [_{TP} [_{FocP} XP-case [e _{α} da]] T]]

Positing two types of clefts may appear redundant and reducible, but postulating two derivations for the topic is independently proposed by Saito (1985): base-generating or fronting via scrambling depending on the category (NP topic vs. PP topic). Moreover, each of the structures is supported by a different set of evidence which cannot be explained otherwise, as shown below.

2. Previous Analyses and Data Supporting the Present Analysis

H&I's analyze, adopting Rizzi's (1997) articulated CP structure, that NML-clauses and CM (Case-Marked)-focus NPs are base-generated inside Fin(iteness)P, and that CM-focus NPs are moved to Spec, FocP, with the remnant nominalized FinP raised to Spec, Top(ic)P. Cho et al., on the other hand, propose, following Deklerk (1988), that clefts have an amalgamate structure of question-and-answer. NML-Cl wa-phrases are interpreted as questions (concealed Q, though they do use this term) and pre-copular portions serve as corresponding answers. The focused elements undergo movement to Spec, FocP and the rest of the pre-copular clause is subject to ellipsis.

Both of the analyses can explain basic properties of clefts: (a) connectivity effects (Case-matching, binding conditions, bound variables) (b) island sensitivity (c) availability of multiple CM foci. However, the two analyses diverge in the following three points: (i) the occurrence of the same CM constituents in the NML-Cl wa-phrase and the pre-copular position, as in (2); (ii) NPI (*X-sika*) licensing in (3); (iii) wh-phrase in the pre-copular focus position in (4). The first two pose a problem for the NML-clause fronting analysis, the third for the base-generation analysis.

(2) (Taro and Ziro ate fruits after dinner.)

[Hutari-ga tabeta]-no-wa [Taro-ga ringo-o niko-to, [Ziro-ga nasi-o ikko da]
Two people-NOM ate NML-TOP -NOM apple-ACC and two-CL Ziro-NOM pair-ACC one COP
'What the two ate is Taro ate two apples and Ziro ate a pair.'

In (2), Taro and Ziro are contrasted in the focus position, and the combination of the agent of eating and the fruit eaten constitutes new information, which cannot be conveyed by simply

putting ‘two apples and a pair’ in the focus. The NML-clause fronting analysis cannot deal with (2) readily, as there is no source for the topicalized NML-clause in the pre-copular position.

- (3)a. *[Taro-ga tabe-nai]-no-wa kudamono-sika da
 Taro-NOM eat-neg-NML-TOP fruit-anything but COP
 Intended: ‘What Taro eats is nothing but fruits.’ ‘Taro eats only fruits.’
 b. ?[Tokuteino kudamono-sika tabe-nai]-no-wa Taro-ga ringo-sika, Ziro-ga nasi-sika da
 specific fruit- eat-neg-NML-TOP Taro-NOM apple Ziro-NOM pair COP
 ‘Who eats nothing but specific fruits is Taro eats nothing but apples, Ziro eats nothing but pairs.’ ‘Taro eats only apples, and Ziro eats only pairs.’

NPI sika requires licensing by NEG in the same clause. The sika-phrase in the focus position is not licensed by NEG in the NML-Cl wa-phrase in (3a), but is significantly better though not perfect in (3b). The base-generation analysis can explain the contrast in terms of question-answer congruence. While the NML-Cl wa-phrase is interpreted as a negative concealed question (What does Taro not eat?), the pre-copular portion is interpreted as a positive answer (Taro eats only apples but not others.), resulting in incongruence. The topic phrase with another sika phrase in (3b) is interpreted as a positive concealed question (Who ate nothing but specific fruits?), posing no problem. The NML-clause fronting analysis wrongly predicts that (3a) exhibits connectivity regarding NPI licensing, and cannot deal with (3b) due to the same reason for (2).

The base-generation analysis, however, faces a problem with (4), where wh-words occupy the pre-copular focus position, which is supposed to serve an answer to the concealed question in the topic phrase. The NML-clause fronting analysis works better, as we can assume the NML clause functions as a syntactic predicate formed by focus movement, with the focus as an argument.

- (4) [Taro-ga e tabeta]-no-wa nani / nani-o na-no
 Taro-NOM ate -NML-TOP what / what-ACC COP-Q
 ‘What Taro ate is what?’ ‘What is it that Taro ate?’

The examples in (3)-(4) provide evidence that neither of the two analyses can be reduced to the other. The present analysis can also explain clefting of Sino-Japanese Verbal Nouns (e.g. *taisen*: ‘fighting in a game’) in (5), which does not necessarily fit in the pre-copular position.

- (5) [Kondo-no taissen / Kondo taissen-suru-no]-wa Taro-ga Hanako-to da
 next time-GEN fighting / next fighting do-NML TOP Taro-NOM Hanako-with COP
 ‘The next fighting is Taro fights with Hanako.’

3. Extension and Further Issues

I will further discuss semantic properties of the two types of clefts, and explore potential extension of the present analysis to specificational sentences with headed RCs in the topic, and non-CM NPs in the focus, adopting Schlenker (2003). Cross-linguistic variations among languages with nominalizers (Korean, Turkish, Chinese) are also examined.

Selected References: Cho, S., J. Whitman, and Y. Yanagida (2008) Clefts in Japanese and Korean, *CLS* 44-1. / Deklerk, R. (1998) Studies in copular sentences, clefts, and pseudo-clefts. Leuven: Leuven University Press and Dordrecht: Foris. / Hiraiwa, K. and S. Ishihara. (2012) Syntactic Metamorphosis: Clefts, Sluicing, and In-Situ Focus in Japanese. *Syntax* 15:2, 142-180. / Hoji, H. (1987) Japanese clefts and reconstruction/chain binding effects. Paper presented at the 1987 WCCFL 6, University of Arizona, Tucson. / Saito, M. (1985) Some asymmetries in Japanese and their theoretical implications. Doctoral dissertation. MIT. / Schlenker, P. (2003) Clausal equations (A note on the connectivity problem), *Natural Language & Linguistic Theory* 21 pp. 157-214.

On (non-)alternating complex predicates in Turkish

Key & Tat (2012) argued that transitive CPr structures with the light verb *et-* could be distinguished based on whether an intransitive verb could be formed by switching out the LV with *ol-*. If the alternation is allowed (Type I), then the LV *et-* is responsible for transitivity and accusative case. If it is disallowed (Type II), this is because transitivity is a property of the bare nominal NV element and not the LV. Evidence comes from the fact that the bare nominal NVs of Type II CPrs can take an accusative-marked argument even in the absence of an LV.

One prediction that falls out from this is that for any given transitive CPr that does not permit the transitivity alternation, the NV should be able to assign accusative case on its own without an LV. Akkuş (2013) demonstrates that this prediction is not borne out, presenting a set of CPrs whose NV cannot take an accusative-marked argument with an LV. He designates such CPrs as Type B.

- (1) a. [_{CP} *tamirci dolab-ı (duvar-a) monte et-ti*]
 repairman cupboard-ACC wall-DAT mounting do-PST
 “The repairman fixed the cupboard (to the wall).”
- b. *_{[DP} *tamirci-nin dolab-ı (duvar-a) monte-si*]
 repairman-GEN cupboard-ACC wall-DAT mounting-3SG
Intended: “the repairman’s fixing of the cupboard to the wall” (adapted from Akkuş 2013)

Based on such data, Akkuş concludes that alternation with *ol-* is not a reliable diagnostic for CPr structure. He further argues that, in cases such as (1a), the existence of a ‘true’ nominal counterpart blocks the bare nominal NV from bearing a predicative feature [+predicative].

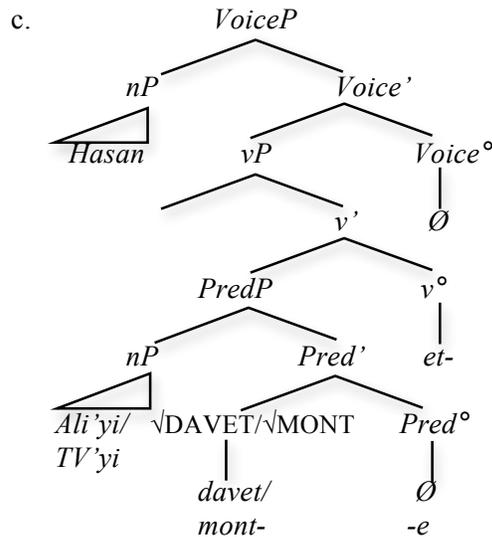
Among other things, this theoretical debate touches on the nature of blocking. On the syntactic model of derivation found in Distributed Morphology (DM) (Halle and Marantz 1993), it is not possible for words to block other words or periphrastic constructions (Embick and Marantz 2008). Rather, blocking is a phenomenon that occurs during Vocabulary Insertion at terminal syntactic nodes. Vocabulary Items (VIs) (affixes) compete for insertion at these nodes, and the competition is won by the most specific VI that does not have any incompatible features. In DM, words are complex objects, and as such do not occupy terminal nodes. Therefore, blocking is not a phenomenon relevant to words. Akkuş’s proposal that nominal words such as *montaj* block underspecified words such as *monte* is incompatible with such a model of syntactic derivation. However, there is a striking fact about Akkuş’s data that suggests that the alternation in forms such as *monte/montaj* takes place not at the level of the word, but at the level of the affix, in accordance with Embick and Marantz’s model of blocking.

(2)	<u>NV element</u>	<u>free nominal</u>	<i>provoke (etmek)</i>	<i>provokasyon</i>
	<i>restore (etmek)</i>	<i>restorasyon</i>	<i>bloke (etmek)</i>	<i>blokaj</i>
	<i>motive (etmek)</i>	<i>motivasyon</i>	<i>monte (etmek)</i>	<i>montaj</i>
	<i>izole (etmek)</i>	<i>izolasyon</i>	<i>revize (etmek)</i>	<i>revizyon</i>
	<i>organize (etmek)</i>	<i>organizasyon</i>	<i>asimile (etmek)</i>	<i>asimilasyon</i>
	<i>koordine (etmek)</i>	<i>koordinasyon</i>	<i>sabote (etmek)</i>	<i>sabotaj</i>
	<i>finanse (etmek)</i>	<i>finansman</i>	<i>kamufle (etmek)</i>	<i>kamuflaj</i> (Akkuş 2013)

What is noteworthy is that all of the NVs of such CPrs have the same ending, *-e*. This apparent coincidence suggests that *-e* is an affix. This hypothesis is further supported by the fact that *-e* alternates with a set of endings in the corresponding free nominal: *-(as)yon*, *-aj*, *-man*. We argue that these are indeed affixes, attaching to Roots: $\sqrt{\text{RESTOR}}$, $\sqrt{\text{MOTIV}}$, $\sqrt{\text{MONT}}$, etc. The suffix *-e* realizes the head Pred^o of a PredP, while *-(as)yon* etc. realize a fused Pred.n^o head, which projects a nominal PredP. Thus, *et-* takes as its complement not a nominal, but a non-nominal PredP. In addition, we argue that Akkuş’s data transparently reveal the true structure of K&T’s Type II CPrs. In these too, *et-* takes as its complement a non-nominal PredP (contra K&T), while only the free nominal is a nominal PredP. The only difference between K&T’s Type II and Akkuş’s Type B is that in the former the alternating morphemes have a null realization.

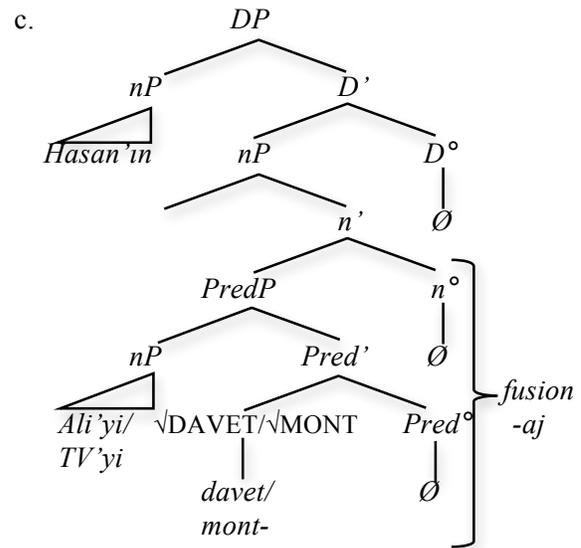
(3) a. *Hasan Ali'yi davet et-ti*
 Hasan Ali-ACC invitation do-PST
 'Hasan invited Ali.'

b. *Hasan TV'yi monte et-ti*
 Hasan TV-ACC mounting do-PST
 'Hasan fixed the TV (to the wall).'



(4) a. *Hasan'in Ali'yi davet-i*
 Hasan-GEN Ali-ACC invitation-3SG
 'Hasan's invitation of Ali'

b. *Hasan'in TV'yi montaj-i*
 Hasan-GEN TV-ACC mounting-3SG
 'Hasan's fixing of the TV (to the wall).'



The present work thus claims that the so-called bare nominal NV of non-alternating transitive *et*-CPrs is not a nominal at all, contra K&T, Akkuş (2013), and many others. This claim is supported by another set of data. The NVs of Type II/A are overwhelming foreign borrowings, and thus many of these were targeted by the Turkish Language Reform. The pure Turkish equivalents of these are in most cases formed with deverbal nominalizers. For example, the neologism for Arabic *hall* 'solution' is *çöz-üm*, from the verb stem *çöz-* 'solve' and the deverbal nominalizer *-Im*. However, these are not true equivalents, for, unlike the words they are intended to replace, they do not combine with *et-* to form CPrs.

(5) CPr	neologism+LV	<i>zann-et-</i>	* <i>san-ı et-</i>	'suppose'
<i>hall-et-</i>	* <i>çöz-üm et-</i>	<i>ikaz et-</i>	* <i>uyar-ı et-</i>	'warn'
<i>tarif et-</i>	* <i>tanı-m et-</i>	<i>tesir et-</i>	* <i>et-ki et-</i>	'influence'
<i>tercüme et-</i>	* <i>çevir-i et-</i>	<i>ispat et-</i>	* <i>kanıt et-</i>	'prove'

The neologistic nominals fail across the board to form Type II CPrs. This is further evidence that the NV element in non-alternating transitive CPrs with *et-* is not a nominal. In this construction, the complement of the LV is a non-nominal PredP (whose head is null in these cases, and has the realization *-e* in Akkuş's Type B). Note that when *et-* does take an NV bearing an overt nominalizer, the CPr is intransitive (Type III or IV in K&T's typology), e.g., *tanık-lık et-* 'testify.'

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Post-verbal CPs in North Azeri: new evidence for extraposition

Pattern: While Turkic languages typically display a robust head-final (SOV) phrase structure, many Turkic languages have borrowed a head-initial complementizer, *ke*, from Persian (Göksel and Kerlake, 2005; Kornfilt, 1997, 2005). While complement clauses generally precede the verb that selects them in these languages, clauses headed by the initial complementizer *follow* the verb, as illustrated below for *tʃi*-clauses in North Azeri (Azerbaijan, Dagestan):

- (1) **Nominalized (head-final) embedded clause: must appear before matrix V**
- a. män [at-lar-in cöc-lär-i je-di-lär-in]-i bil-ir-am
 1SG horse-PL-GEN carrot-PL-ACC eat-NLZ-PL-3POSS-ACC know-IPV-1SG
 ‘I know that horses eat carrots.’
- b. * män bil-ir-am [at-lar-in cöc-lär-i je-di-lär-in]-i
 1SG know-IPV-1SG horse-PL-GEN carrot-PL-ACC eat-NLZ-PL-3POSS-ACC
- (2) ***tʃi*-clauses: must appear after matrix V**
- a. * män [tʃi at-lar cöc-lär-i je-ir-lär] bil-ir-am
 1SG C horse-PL carrot-PL-ACC eat-IPV-PL know-IPV-1SG
- b. män bil-ir-am [tʃi at-lar cöc-lär-i je-ir-lär]
 1SG know-IPV-1SG C horse-PL carrot-PL-ACC eat-IPV-PL
 ‘I know that horses eat carrots.’

Puzzle: What causes *tʃi*-clauses to surface in this unusual post-verbal position – a position that is ungrammatical for all other XPs in North Azeri? Work on the analogous complementizer-initial *ki*-clauses in Turkish has yielded multiple possible explanations for their postverbal distribution, notably: (a) *ki*-clauses are not truly embedded by V at all, but are instead paratactic elements with assertive force (e.g. Kesici, 2013); (b) because *ki*-clauses are head-initial, they are selected for by a head-initial V (e.g. Kornfilt, 2005); (c) *ki*-clauses are selected by a null D that triggers “radical spellout” of the CP in a post verbal position and is necessary to avoid violations of the Final-Over-Final Constraint (FOFC, Biberauer et al, 2009).

Proposal: In this talk, we present evidence from North Azeri that is problematic for these approaches. In particular, we show that the North Azeri pattern is incompatible with both a paratactic approach and any approach in which the *tʃi*-clause remains in a post-verbal position inside the embedded clause (Kornfilt, 2005; Biberauer et al., 2009). Instead, we show that head-initial CPs in North Azeri display both properties of true embedding and evidence that suggests they are right-dislocated in the matrix clause.

If we examine the paratactic account of Turkish *ki*-clauses developed by Kesici (2013), we can see that North Azeri displays divergent behavior on a number of metrics. First, Kesici argues that in Turkish, *ki*-clauses are not subordinate clauses, but are rather paratactically connected to the matrix clause and associated with a *pro* element in argument position; *ki* itself is a C element that can conjoin the paratactic clause with the matrix CP. Kesici argues that the inability of *ki*-clauses to iterate is expected on a paratactic account where they are not truly subordinate clauses. In North Azeri, however, multiple *tʃi*-clauses are grammatical:

- (3) män bil-ir-äm [tʃi sän bil-ir-sän [tʃi at cöc-lär-i je-ir]]
 1SG know-IPV-1SG C 2SG know-IPV-2SG C horse carrot-PL-ACC eat-IPV
 ‘I know that you know that the horse eats carrots.’

In addition, Kesici argues that Turkish *ki* has assertive force, linked to its status as a paratactic element. Here again, North Azeri diverges sharply, allowing *tʃi*-clauses to appear in a variety of non-assertive contexts, as illustrated by the factive constructions below:

- (4) män xofbäxt-äm [tʃi Minnesota-da jaʃaj-ir- am]
 I happy-1SG [C Minnesota-LOC live-IPV-1SG
 ‘I’m happy that I live in Minnesota.’
- (5) män bil-ir-mi-di-m [tʃi tʃoban at-i je-diz-dir-di]
 1SG know-IPV-NEG-PAST-1SG C farmer horse-ACC eat-CAUS-CAUS-PAST
 ‘I didn’t know if/that the farmer fed the horse.’

The head-initial VP account (Kornfilt, 2005) and the FOFC-driven account (Biberauer et al., 2009) make a shared prediction about constructions with multiple embedded clauses: a *tʃi*-clause should appear immediately *after* the selecting verb, no matter how deeply embedded that verb is. While the predictions of these accounts are indistinguishable from an extraposition word order in a sentence with only one embedded clause, they diverge for a sentence with *two* embedded clauses, where the *tʃi* clause is most deeply embedded. A head-initial VP/radical spellout account would predict either that headedness/word order flips only in the most embedded VP (yielding V2-*tʃi*-V1 order) or perhaps that V-headedness flips to initial for both of the upper verbs (yielding V1-V2-*tʃi* order). In a right-extraposition account, the *tʃi*-clause can extrapose without switching the order of the higher verbs. The second option – the right-extraposition pattern – is what we find in North Azeri in (6):

(6) **Multiple embeddings: V2-V1-*tʃi* order**

Samir [män-i inan-dir-may]-a tʃalif-ir] [tʃi at-lar cöc-lär-i je-ir-lär]
 Samir 1SG-ACC believe-CAUS-INF-DAT try-IPV C horse-PL carrot-PL-ACC eat-IPV-3PL
 ‘Samir tries to convince me that horses eat carrots.’

The pattern in (6) cannot be the result of one or both of the upper verbs becoming head-initial with an embedded *tʃi*-clause, or with the *tʃi*-clause simply spelling out in its underlying position. Based on this evidence, we conclude that none of the proposals discussed for Turkish above can account for the distribution of *tʃi*-clauses in North Azeri. We argue that *tʃi*-clauses in North Azeri are truly embedded clauses (contra Kesici, 2013) that undergo mandatory extraposition to the right periphery of the matrix clause (contra Kornfilt, 2005, Biberauer et al, 2009). Nevertheless, these clauses still display the same basic post-verbal distribution as *ki*-clauses in Turkish, suggesting that a unified account is desirable, despite their differences. We suggest that although the particular FOFC-driven account of *ki*-clause placement put forth in Biberauer et al. (2009) cannot fully account for the North Azeri facts, a FOFC-driven account in which extraposition mitigates the underlying disharmonic word order can better capture the pattern in North Azeri.

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Poster Abstracts

From perspective to comparison: A case study of Turkish *göre*

We discuss one ambiguity found in Turkish – namely, the fact that the standard marker (\approx English *than*) and the ‘perspective shifting’ marker (\approx English *for X / from X’s perspective*) are both expressed with the participle of the verb ‘see’, assigning Dative to its complement DP. We describe semantic and diachronic relation between perspective and comparison that sheds light on this ambiguity.

Data. Sentences like (1) are ambiguous between two readings: 1) a comparative one where Lena’s height is compared to Maria’s (Lena is the standard of comparison) and 2) a perspective-shifting one, where, roughly, Maria is tall in Lena’s opinion (Lena is the ‘perspective-holder’):

- (1) [Lena-ya **göre**] Maria uzun TURKISH
 Lena-DAT see.PRTCPL Maria tall
 ‘Maria is taller than Lena’ OR ‘Lena finds Maria tall’

These two interpretations have different truth conditions and amount to different syntactic structure of the string (1). Semantically, none of the two readings entails each other – strictly speaking, to find someone tall, one doesn’t have to be shorter than that person, and vice versa (i.e. an adult judging the height of a child). Syntactically, the comparative reading comes with *göre*-phrase attaching at the VP-level, while in the case of perspective-shifting *göre*-phrase has a higher attachment site, probably clause-level (evidence omitted here).

The ambiguity is not always there: sentences with differential measure phrases (2*m*) or inanimate subjects are unambiguously comparative (2); when the subject and *göre*-object that are hard to locate on one scale, the sentence is preferably interpreted as perspective-related (3):

- (2) [Istanbul-a **göre**] Berlin-de çok eski ev var
 Istanbul-DAT see.PRTCPL Berlin-LOC many old house EXIST.3SG
 ‘There are more old houses in Berlin than in Istanbul’
- (3) [Lena-ya **göre**] okula gitmek çok sıkıcı.
 Lena-DAT see.PRTCPL school go.INF very boring
 ‘From Lena’s perspective, going to school is boring’ (\approx ‘Lena finds school boring.’)

Analysis: setting the stage. (2) (and Turkish in general) lacks overt comparative morphology (\approx English *-er*). After Schwarzschild (2011) and Alrenga et al. (2012), we assume that in this case the standard marker (here *göre*) itself introduces comparative semantics. The standard phrase would thus have a semantics in (4) that after combination with a gradable predicate and a subject would produce a familiar comparative statement about two individuals on a scale:

$$(4) \quad \llbracket \text{Lena-ya göre}_{comp} \rrbracket = \lambda G_{(d,et)} \lambda y_e. \text{MAX}(\lambda d. G(d)(y)) > \text{MAX}(\lambda d'. G(d')(\mathbf{Lena}))$$

Moving on to the perspective-shifting uses of *göre*, we treat the judge, or the perspective-holder (Lena in (3)), as part of index of evaluation, along with world, time, etc.: $\llbracket \alpha \rrbracket^{c:w,t,j}$ (Lasersohn 2005, 2009). Thus *göre* would be an expression that can shift the judge index – similar to *for John, from John’s perspective*, verbs like *find* (Saebo 2009) and, according to some analyses, evidentials (McCready 2007).

$$(5) \quad \llbracket \text{Lena-ya göre}_{persp} \rrbracket^{c:w,t,j} = \lambda \alpha. \llbracket \alpha \rrbracket^{c:w,t,\mathbf{Lena}}$$

The judge index only has effect on interpretation of those expressions that lack the property of ‘judge-rigidity’ (Lasersohn 2005, Anand 2009). Judge-rigid items have the same semantic value no matter how you manipulate the judge parameter:

$$(6) \quad \alpha \text{ is JUDGE-RIGID iff } \forall t, w, j, k. \llbracket \alpha \rrbracket^{c:t,w,j} = \llbracket \alpha \rrbracket^{c:t,w,k}, \text{ where } j \text{ and } k \text{ are judge indices.}$$

Non-judge-rigid expressions are predicates of personal taste (*tasty* etc.), evaluative adjectives (*smart*), and, importantly, positive forms of dimensional adjectives (*tall* etc.) (Barker 2002, Richard 2004). Judge-dependency of the latter is based on different judges potentially having different cut-off points between *tall* and *not-tall* (or different standards) in mind. Comparative forms of dimensional gradable adjectives are judge-rigid (Richard 2004): the truth conditions of the sentence like *Maria is taller than Lena* do not depend on the judge.

In parallel to two different readings of (1) discussed in the data section, the meanings in (4) and (5) are different in semantic type, constraints on the first argument of *göre*, and entailments,

and amount to different order of composition. First, this semantics for *göre_{persp}*-phrase is compatible with it attaching to a constituent of type *t*, this class is clearly not restricted to gradable predicates, and *göre_{persp}*, unlike *göre_{comp}*, does not take an extra individual argument. *göre_{comp}*-phrase, to the contrary, takes a gradable predicate and an individual as its arguments and thus is attached lower. The first argument of *göre_{persp}* has to be sentient to be able to serve as a judge, while the first argument of *göre_{comp}* only has to have some value on the scale of the gradable predicate *göre_{comp}* combines with. Truth-conditionally, *göre_{persp}* doesn't state anything except that α gets such-and-such semantic value when evaluated by an individual in its first argument, while *göre_{comp}* states an exceed relation between its first and third argument on the scale introduced by its second argument. Thus the two are very different.

Analysis: establishing the relation. The two meanings: *göre_{comp}* and *göre_{persp}* are clearly related historically. We describe this relation as meaning change under reanalysis. We hypothesize that comparative meaning arises on top of the perspective-shifting use. In the process of reanalysis the positive construction with a gradable predicate gets a comparative interpretation and the judge gets reinterpreted as a standard of comparison, and the syntactic structure changes accordingly (see Eckardt 2006). The crucial cases are ambiguous sentences like (1), which meet both sets of constraints associated with *göre_{persp}/göre_{comp}*. Perspective reading is available because Lena is a sentient individual and 'Maria is tall' is non-judge-rigid. Comparative reading is available because Lena has some height, and thus can be located on the scale for 'tall' and compared to Maria w.r.t. the same scale. Crucially, Turkish does not have comparative marking on gradable predicates, which allows the unmarked form to participate both in comparative and positive constructions, opening space for potential ambiguity.

Recall that the perspective reading does not entail the comparative one. However, these readings are related by a pragmatic inference. The two propositions tend to be both true or both false in a large number of ('normal') possible worlds. In other words, one is usually or typically accompanied by the other: it is typical (or normal) that if one of the propositions is true in a world *w*, then the other one is true in *w* as well. In plain English, if from someone's perspective someone else is tall (smart, lazy, etc.), then it's quite likely that the perspective-holder is located lower on the scale than the subject of the gradable predicate, although it doesn't have to be the case. One could think of this more formally in terms of high conditional probability of the truth of the comparative proposition given the perspective-shifting proposition.

The tie between the judgement and the relative position of individuals on the scale might be stronger or weaker for different predicates, but we suggest that this tie is the point where a 'judgement' reading can be enriched by a 'comparative' inference. This inference then sticks to the judge-shifting marker and can eventually evolve in a separate comparative reading by means of semantic reanalysis (Eckardt 2006).

Presumably, this path involves intermediate stages resulting in increasing 'permutation-stability' of the first argument of *göre* (bleaching of the sentience requirement) (von Stechow 1995) and getting *göre* to bind the degree argument of the gradable predicate and thus the availability of the full range of *göre*-based degree constructions (differential measure phrase construction, etc.). *Göre*-comparatives bear signs of this semantic development in progress, for example, *göre* cannot host measure-phrase standards ('than 2 meters'), unlike in the default Turkish comparative construction involving an ABL-standard.

Discussion. We discussed a previously unexplored connection between comparatives and perspective-shifting constructions, based on Turkish data. One consequence of this study is the description of the pragmatic inference based on typicality rather than conversational implicature in a strict sense of the term – inferences based on the interpreter's reasoning about the speaker's intentions or state of knowledge. In the solution described here, no reasoning of this sort is involved. Similar inferences are occasionally described in the literature (see Traugott and Dasher 2002, Yanovich 2013) but there is no systematic study. Also, our Turkish data add to the known facts about the semantic development of one understudied type of standards of comparison: the participle of the verb 'see' appears in comparative constructions in many Turkic languages and also some Iranian languages (Dari, Tajiki).

Selected references: Lasnik (2005) Context dependence, disagreement, and predicates of personal taste. L&P28 • Richard (2004) Contextualism and relativism. PS119 • Sævið (2009) Judgment ascriptions. L&P34(4)

Tone and metrical structure in Seoul Korean

Keywords: phrasal tone, iambic stress, OT, Seoul Korean

Introduction: This study seeks to uncover the basic nature of Seoul Korean (SK) prosody, which still remains controversial. Some authors (Jun 1993, 1998, 2006; among others) state that SK has neither a lexical stress nor a pitch accent. Instead, they state LH-LH is a default phrasal tonal pattern of an Accentual Phrase (AP) unless an AP-initial segment is aspirated or tensed. However, their work only describes the surface realization of tonal patterns and fails to give a theoretical explanation of why LH-LH is preferred over other possible patterns. Given that a H tone is universally marked (de Lacy 2002), it is questionable why LH-LH is not preferred over LH-LH. Also, why HL-HL never occurs in SK is unanswered within their framework. Others, by contrast, claim that SK has iambic stress (Ko 1999, 2010; Lee 1989; among others). However, their claim is mainly inferred from intuition without strong empirical evidence, and not all of their data match other native speakers' judgments. This study thus aims at bridging the gap between those views by providing results of a perception experiment and by proposing a new view on Korean prosody in the framework of OT.

Method: Since not all kinds of tonal patterns are observed in a production experiment, we conducted a perception experiment to evaluate all possible tonal patterns. Previous studies have shown that speakers of many languages adapt a default metrical system when pronouncing loanwords (Hyman 1970), and it is also true for Korean (Kang 2011). Thus, we employed three loanwords, which differ in the number of syllables (2, 3, 4 syllables, respectively). The pitch contours of the target words were modified to generate all possible tonal patterns using Praat (4, 8, 16 patterns, respectively). Ten SK speakers evaluated whether or not each tonal pattern sounded natural using a 7-point scale (7="very natural", 4="neither natural nor unnatural", 1="very unnatural"). The carrier sentence we used is provided in (1).

- (1) Na nin ro ma /mi ču ri /ru ma ni a gam ni da
I Rome /Missouri / Romania going
'I am going to {Rome/Missouri/Romania}.'

Results: A one-way ANOVA revealed that the effect of tonal patterns was significant for the target words (2 sylls: $p < .01$; 3 sylls: $p < .001$; 4 sylls: $p < .001$). This result demonstrates that the naturalness of SK prosody heavily depends on how tones are aligned in an AP. Tukey's post-hoc tests were conducted for multiple comparisons. The most favored tonal patterns within each group and their mean values are shown in (2). Note that the favored tonal patterns within each group were not significantly different from one another ($p > .05$).

- (2) 2 syllables: LL (4.5), LH (5.4)
3 syllables: LHL (4.9), LLL (5.2), LHH (6.4), LLH (6.4)
4 syllables: LHLL (5.6), LLLL (5.7), LHLH (6.0), LLLH (6.1)

Discussion: de Lacy (2002) analyzes patterns of stress-driven tone, where a metrical structure determines the distribution of tones. Following his assumption, we propose that the preferred tonal patterns in (2) reflect its metrical structure. Also, consistent with the previous studies, we assume that i) APs are basic prosodic units in SK and ii) tonal patterns of APs in SK are based on an iambic system. According to de Lacy (2002), foot heads attract a H tone and foot non-heads attract a L tone, and tones alternate to satisfy this requirement. Thus, we propose that foot heads in SK also attract a H tone, but it is prohibited on foot non-heads. Next, we rank constraints on the foot construction, RHTYPE=I and ALIGN-UNARY-R, undominated, ruling out candidates with trochaic feet or a unary foot aligned on the left edge of a word. We also add PARSE- σ as one of the undominated constraints to eliminate candidates with unparsed syllables. Following the results in our perception experiment, we propose that SK requires foot

non-heads to be L-toned, but does not require foot heads to be H-toned. Thus, *NONHD/H must be undominated, whereas *HD/L is violable. Finally, we add *H, a cross-linguistically universal constraint, to the set of dominated constraints. Combining all the constraints, we arrive at the following ranking: RHTYPE=I, ALIGN-UNARY-R, PARSE-σ, *NONHD/H » *HD/L, *H.

The following tableau (3) shows how these constraints work for the 4-syllable word. Candidates (a-d) do not violate any of the undominated constraints, so all of them are selected as the most optimal outputs. However, candidate (e), which has two unary feet, violates ALIGN-UNARY-R, since (ru) is not aligned with the right edge of the word. ALIGN-UNARY-R will rule out candidates with more than one unary foot, such as (3e) and (σσ)(σ)(σ), since only one unary foot can be aligned with the right edge of a word. Also, candidate (f) has trochaic feet, so it is ruled out for its violation of RHTYPE=I. Given that the mean value of the HLHL pattern was the lowest in the perception experiment (M=2.1), we can confirm that SK strongly disfavors trochaic feet. In addition, candidate (g) is not chosen as an optimal output, because it has two unparsed syllables. PARSE-σ will eliminate all candidates with unparsed syllables, such as (σσ)σσ and (σσ)(σ)σ. Finally, candidate (h) is ruled out for violating *NONHD/H, since the foot non-head ru in (ru ma) has a H tone. Based on the results of the perception experiment that there was no significant difference among the four optimal outputs, we assume the top four constraints are mutually unranked.

(3) 4-syllable word

Input: /ru ma ni a/	RHTYPE=I	ALIGN-UNARY-R	*NONHD/H	PARSE-σ	*HD/L	*H
a. $\text{ru}_L \text{ má}_H (\text{ni}_L \text{ á}_H)$						**
b. $\text{ru}_L \text{ má}_L (\text{ni}_L \text{ á}_H)$					*	*
c. $\text{ru}_L \text{ má}_H (\text{ni}_L \text{ á}_L)$					*	*
d. $\text{ru}_L \text{ má}_L (\text{ni}_L \text{ á}_L)$					**	
e. $(\text{ru}_L) (\text{ma}_L \text{ ní}_H) (\text{á}_H)$		*!				**
f. $(\text{rú}_H \text{ ma}_L) (\text{ní}_H \text{ a}_L)$	*!					**
g. $(\text{ru}_L \text{ má}_H) \text{ni}_L \text{a}_H$				*!*		**
h. $(\text{ru}_H \text{ má}_H) (\text{ni}_L \text{ á}_H)$			*!			***

The most favored outputs of the disyllabic and trisyllabic words are also correctly chosen in the same constraint ranking. The foot structures that we assume for the disyllabic and trisyllabic words are provided in (4).

(4) 2 syllables: $(\text{ro}_L \text{ má}_L) / (\text{ro}_L \text{ má}_H)$

3 syllables: $(\text{mi}_L \text{ čú}_H) (\text{rí}_L) / (\text{mi}_L \text{ čú}_L) (\text{rí}_L) / (\text{mi}_L \text{ čú}_H) (\text{rí}_H) / (\text{mi}_L \text{ čú}_L) (\text{rí}_H)$

Implication: The judgments of the perception experiment can be best explained by assuming that SK has a metrical structure, which drives its surface tonal patterns. We propose that the previous approaches to SK prosody are not opposed to each other, but rather can be incorporated within the same framework. The present study bridges the gap in the literature by providing empirical evidence for the favored tonal patterns and takes a theoretical approach to those patterns. Finally, this approach reveals the nature of underlying mechanisms of a language's prosody like SK that would be otherwise difficult to assess.

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beki and *hoo-ga ii*: Japanese Priority Modals

In this paper I argue that the Japanese expressions *beki* and *hoo-ga ii* are both weak necessity modals usable in deontic contexts. Their apparent distinctions in strength and politeness arise from the fact that *hoo-ga ii* is a broad priority modal (ala Portner 2009) and *beki* is strictly deontic. These contrasting lexical items provide insight into the crosslinguistic realization of modal type and the links between presupposition and politeness.

Politeness: *Hoo-ga ii* can be employed as a polite alternative to *beki* when offering a suggestion to a person of equal or higher authority. However, *hoo-ga ii* is not restricted to polite contexts, and even in neutral contexts, using *beki* can be perceived as rude. As such, they are unlike the majority of the polite/neutral pairs of expressions found in Japanese.

Modal Force: *Beki* and *hoo-ga ii* are dispreferred in necessity and possibility contexts as shown in (1) and (2). However both are available in a variety of weak necessity contexts, as in (3). Thus, *beki* and *hoo-ga ii* appear to be weak necessity modals.

- (1) Necessity: “There is only one way to save the world.”
- a. #Taroo-wa zibun-o sasageru **beki** da b. #Taroo-wa zibun-o sasage.ta **hoo-ga ii**
Taro-TOP self-ACC sacrifice **BEKI** COP Taro-TOP self-ACC sacrifice.PERF **HOO-GAII**
#‘Taro **ought to** sacrifice himself.’ #‘**It’s better** if Taro sacrifices himself.’
- (2) Possibility: “Your mother says, ‘yes, you can go see a movie with your friends.’”
- a. #eiga-o miru **beki** da b. #eiga-o mi.ta **hoo-ga ii**
movie-ACC see **BEKI** COP movie-ACC see.PERF **HOO-GA II**
#‘I **ought to** see a movie.’ #‘**It’s better** to see a movie.’
- (3) Weak Necessity: “Taro is in a hurry, he can take the Bullet Train or fly.”
- a. Hikooki-de iku **beki** da b. Hikooki-de it.ta **hoo-ga ii**
Airplane-LOC go **BEKI** COP Airplane-LOC go.PERF **HOO-GA II**
‘He **ought to** go by airplane.’ ‘**It is better** to go by airplane.’

Modal Type: Neither *beki* nor *hoo-ga ii* are compatible with epistemic or circumstantial/root modality contexts (as seen in Narrog 2009). Instead they are different kinds of priority modal. Priority modals come in at least three types: bouletic, deontic, & teleological (Portner 2009). *Beki* tends to not appear in bouletic and teleological contexts, as in (4a) and (5a) but is quite common in deontic contexts, (7a). *Hoo-ga ii* appears in all priority contexts (4b-6b), but when there is no need to be polite, it is often perceived as too weak (7b).

- (4) Teleological Context: “Taro wants to get to Wegmans. He could take Buffalo Street or State Street (or various others), but State Street has the fewest stoplights.”
- a. ?Taroo-wa suteeto sutoreeto-o toru **beki** da
Taro-TOP state street-ACC take **BEKI** COP
?’Taro **ought to** take State Street.’ (Intended: No moral/social obligation)
- b. Taroo-wa suteeto sutoreeto-o tot.ta **hoo-ga ii**
Taro-TOP state street-ACC take.PERF **HOO-GA II**
‘**It’s better** if Taro takes State Street.’
- (5) Bouletic Context “Taro is visiting Kyoto. He wants to visit the shrine, but he also wants to sing karaoke with his friends. Today it’s raining and a bit cold.”
- a. ?karaoke-ni iku **beki** da
karaoke-DAT go **BEKI** COP
?’He **ought to** go to karaoke.’ (Intended: No moral/social obligation)
- b. karaoke-ni it.ta **hoo-ga ii**
karaoke-DAT go.PERF **HOO-GA II**
‘**It’s better** to go to karaoke.’

Beki can still be used in the contexts of (4) and (5), but would add an overtone of social or moral obligation.

(6) Polite Deontic Context “You have just heard that your boss has made no plans to take the visiting professor Ono out to dinner. You say to your boss...”

- a. ?Ono-sensei-o tabe-ni o-ture-ni naru **beki** desyoo.
Ono-teacher-ACC eat-DAT HON-take-DAT become **BEKI** probably
?‘Probably you **ought to** take Professor Ono to eat.’
- b. Ono-sensei-o tabe-ni o-ture-ni nat.ta **hoo-ga ii** desyoo.
Ono-teacher-ACC eat-DAT HON-take-DAT become.PERF **HOO-GA II** probably
‘Probably **it’s better** to take Professor Ono to eat.’ (Intended: No moral/social obligation)

In (6) there is a clear moral/social obligation. But in order to be polite, it is better to not use *beki*, which highlights the obligation, and use *hoo-ga ii* instead.

(7) Deontic Context: “You have just heard that a co-worker has left his wife and child and run away to Thailand with his mistress, leaving his family without any income.”

- a. yabai naa, otoosan-wa kazoku-o mamoru **beki** da yo
awful innit father-TOP family-ACC protect **BEKI** COP EMPH
‘That’s awful! A father **ought to** take care of his family!’ (Intended: moral/social obligation)
- b. ?yabai naa, otoosan-wa kazoku-o mamot.ta **hoo-ga ii** yo
awful innit father-TOP family-ACC protect **HOO-GA II** EMPH
?‘That’s awful! **It’s better** for a father to take care of his family!’

In (7), there is also a clear moral/social obligation. But since there is no need to be polite in this context, not using *beki* seems to deny the existence of the obligation.

Modeling Modality: Both *beki* and *hoo-ga ii* are available in deontic contexts, but *hoo-ga ii* is also available in bouletic and teleological contexts. Abstracting away from the compositionality issues of *hoo-ga ii*, which is inherently a comparative construction, we can describe both of these constructions using Kratzer’s (1981, 1991) modal semantics.

$[[\text{beki}(\text{B})(\text{g})(\text{w})(\phi)]]$ is only defined if B is a modal base specified by the context and g is a function operating on w that produces a set of deontic propositions.

If defined, $[[\text{beki}(\text{B})(\text{g})(\text{w})(\phi)]] = 1$ iff $\forall w' \in \neg\phi \exists w'' : w'' \leq_{\text{g}(\text{w})} w' \ \& \ w'' \in \phi$

$[[\text{hoo-ga ii}(\text{B})(\text{g})(\text{w})(\phi)]]$ is only defined if B is a modal base specified by the context and g is a function operating on w that produces a set of prioritized propositions.

If defined, $[[\text{hoo-ga ii}(\text{B})(\text{g})(\text{w})(\phi)]] = 1$ iff $\forall w' \in \neg\phi \exists w'' : w'' \leq_{\text{g}(\text{w})} w' \ \& \ w'' \in \phi$

Deriving Politeness from Modal Flavor: Priority modality is built out of three subsets: deontic, bouletic, and teleological. Since *hoo-ga ii* is compatible with all three contexts, it does not assert a claim to deontic authority. Thus, it can replace *beki*, giving the appearance of politeness in situations where making a claim to authority over the interlocutor would be considered rude, as in (6). But in deontic contexts where no social conflict would result, *hoo-ga ii* is far less likely to appear than *beki*, as in (7). Using *hoo-ga ii* when *beki* is available implicates that the speaker is not acknowledging the moral or social obligation and instead is claiming either a personal benefit (teleological) or preference (bouletic) for the outcome of the action.

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Free Applications of Merge + Overt Case Particles = Scrambling?

Chomsky's (2013) labeling analysis predicts that a category that undergoes movement ultimately lands where it won't induce a labeling failure. It can move to a potentially problematic place as in *wh*-movement to intermediate Spec-C, as long as it further moves on. Under free Merge, IM can move it anywhere in principle, but if a labeling failure occurs, then it pays the price at CI. This labeling analysis sheds new light on scrambling. It has been observed that overt Case particle languages tend to allow scrambling. In this paper, we argue that this observation receives a principled account under the labeling analysis.

Chomsky (2013) argues that Merge puts the two objects α and β into a relation, and the output of this operation is a two-membered set $\{\alpha, \beta\}$. Nothing more. For a syntactic object SO to be interpreted, however, it is necessary to know what kind of object it is (e.g., nominal, verbal, etc). Chomsky (2013) takes *labeling* to be the process of finding the relevant information of $\{\alpha, \beta\}$, generated by Merge. He proposes that such labeling is "just minimal search, presumably appropriating a third factor principle, as in Agree and other operations."

Chomsky (2013) outlines how minimal search operates to find the label of SO. There are two cases in question:

- (I) Suppose $SO = \{H, XP\}$, H a head and XP not a head. Then minimal search will select H as the label, and the usual procedures of interpretation at the interfaces can proceed.
- (II) Suppose $SO = \{XP, YP\}$, neither a head. Here minimal search is ambiguous, locating the heads X, Y of XP, YP, respectively. There are, then, two ways in which SO can be labeled: (A) modify SO so that there is only one visible head, or (B) X and Y are identical in a relevant respect, providing the same label, which can be taken as the label of the SO.

Chomsky (2013) takes A'-movement to support his labeling analysis. Consider (1):

- (1) $[_\beta$ In which Texas city did they think $[_\alpha$ t [C [TP the man was assassinated t]]?

Immediately after the *wh*-phrase *in which Texas city* (hereon, *wh*-PP) is raised to the "specifier" of the embedded C, the embedded clause α is of the form of $\{XP, YP\}$, where XP is the *wh*-PP and YP is $\{C, TP\}$, as shown in (2):

- (2) ... (think) $[_\alpha$ $[_{XP}$ in which Texas city] $[_{YP}$ C [TP the man was assassinated t]]

Crucially, the embedded C (selected by *think*) bears no Q feature, and so there is assumed to be no prominent feature, shared by the Q-bearing X and the Q-lacking Y in (2). If XP remains in this intermediate position, minimal search cannot find the label of α , and so Full Interpretation will be violated at CI. But if XP raises to a higher position, as in (1), then minimal search can find a unique visible head, namely C as the label of α , given "copy invisibility" (IIA) whereby Chomsky (2013) takes XP to be inside α if and only if every occurrence of XP is a term of α . Thus, the lower copy of XP is "invisible" to labeling when α is searched for its label-identification. Notice the matrix clause β of (1) is also of the form of $\{XP, YP\}$, but in β there is a prominent feature shared by X and Y, namely the Q feature of the *wh*-PP and the matrix C_Q hence, the shared Q can be the label of β .

Given this labeling analysis, let us consider Japanese scrambling. The intuition that we would like to pursue is that in Japanese, each overt Case particle constitutes an independent head, while in English, abstract Case is part of a nominal head. Given this much, prior to valuation, a Case-marked object in Japanese schematically looks like $\{uCase, \alpha\}$, where *uCase* is a head and α is a complex object. In English, however, the nominal head inside α bears *uCase*.

Recall that uCase bears a formal feature that must be valued in the narrow syntax (NS). But notice, after valuation, Japanese Case, unlike English one, becomes a purely phonological head, meaning it has nothing to do with NS and CI (see Chomsky 2000, Epstein, Kitahara, and Seely 2010).

Given these assumptions, we would like to propose that such purely phonological head (namely valued Case) in Japanese are invisible to label-identification for CI. Under this proposal, upon the valuation of Case, a Case-marked object in Japanese, in effect, becomes $\{__, \alpha\}$, in which the purely phonological head exists, but is invisible to labeling.

This proposal immediately explains why Case-marked objects never project (see Saito 2013). Notice they are headed by the purely phonological heads (namely, valued Case), and such a phonological head, being invisible to label-identification for CI, will never be a candidate for a label of a newly formed object. Another important consequence of this analysis is that a Case-marked object will never induce the so-called $\{XP, YP\}$ problem, because one of the heads turns out to be invisible to labeling; hence, the remaining head of the YP will be the label of this object. Take a concrete case:

- (3) a. [Taroo-ga [Hanako-o hihansi-ta]]
 Taroo-Nom Hanako-Acc criticize-Past
 ‘Taroo criticized Hanako’
- b. [Hanako-o [Taroo-ga [*t* hihansi-ta]]]
 Hanako-Acc Taroo-Nom criticize-Past

In (3a,b), the Case-marked object XP *Hanako-o*, represented as $\{\text{Case}, \alpha\}$ where α is a complex object, is scrambled to a higher position, forming $\{\{\text{Case}, \alpha\}, YP\}$. But upon the valuation of Case, a Case-marked object, in effect, becomes $\{__, \alpha\}$, in which the purely phonological head exists, but is invisible to labeling. Thus, it follows that the label of $\{\{__, \alpha\}, YP\}$ is the remaining head of the YP, identified by labeling.

To summarize, languages with overt Case particles tend to have scrambling, because scrambling of a Case-marked object never yields a labeling failure. When an NP headed by a valued Case is scrambled, such a head, being invisible to labeling, will never be a candidate for the label of the newly formed object created by this application of scrambling. As a result, the label of the merged sister of this NP will always be the label of the newly formed object. That immediately explains why scrambling never induces a labeling failure. Note, if the overt Case particle is "dropped" from NP, rendering Case to be part of a nominal head, then we predict that scrambling of NP will be restricted to a very local domain where a labeling failure is circumvented by some prominent feature, shared by the relevant heads. This prediction is confirmed in Japanese (see Kuroda 1988).

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Dummy verbs and movement of a focalized VP in Japanese

1. Introduction Although focus particles *-sae* ‘even’ and *-mo* ‘also’ in Japanese can be attached to various types of verbs, the Japanese counterpart of English *do*, namely *si* must occur as illustrated in (1).

- (1) a. John-ga sushi-o *tabe-sae/mo* *(si)-ta. (transitive verb)
 -NOM -ACC eat-even/also do-PAST ‘John even/also ate sushi.’
 b. John-ga *hasiri-sae/mo* *(si)-ta (unergative verb)
 -NOM run-even/also do-PAST ‘John even/also ran.’
 c. ki-ga *taore-sae/mo* *(si)-ta. (unaccusative verb)
 tree-NOM fall-even/also do-PAST ‘The tree even/also fell.’

The question is what the syntactic status of *si* should be. Although each occurrence of *si* in (1) looks alike, the focalized verbal constituent with the non-agentive verb in (1c) cannot be scrambled to the sentence-initial position as in (2c), suggesting that there might be some substantial differences among the use of *si*.

- (2) a. [sushi-o *tabe-sae/mo*]_i John-ga t_i si-ta ‘John even/also ate sushi.’
 b. [*hasiri-sae/mo*]_i John-ga t_i si-ta ‘John even/also ran.’
 c. *[*taore-sae/mo*]_i ki-ga t_i si-ta ‘The tree even/also fell.’

This paper aims to show how the above “agentivity constraint” in VP-scrambling can be explained, arguing that like English *do*, there are two types of *si* in Japanese: it is either a main or a dummy verb. I propose that unlike English (cf. Embick & Noyer 2001), dummy *si* is inserted only into non-agentive v when V-to-T movement is blocked by focus particles. Along the line of Haddican (2007), I argue that the Japanese focalized VP can be scrambled to the edge of the Focus Phrase (= FocP) only when it bears [+noun].

2. The PBC Account Assuming that the unaccusative/passive subject moves out of VP to the edge of TP, Hoji, Miyaagwa, and Tada (1989) attempt to attribute the ill-formedness of (2c) to a violation of the Proper Binding Condition (PBC): the trace left by subject raising cannot be properly bound if VP moves across the subject. However, consider the following examples, in which the focalized VP involving the subject purports to undergo long-distance scrambling. Notice that there is a sharp contrast between (3) and (4): (3) is not fully grammatical, but acceptable, exhibiting only mild deviance.

- (3) ?[_{vP} John-ga *hasiri-sae*]_i Mary-ga [t_i si-ta to] omotteiru
 -NOM run-even -NOM do-PAST COMP think
 ‘Mary thinks that John even ran.’
 (4) ?*[_{VP} ki-ga *taore-sae*]_i Mary-ga [t_i si-ta to] omotteiru
 tree-NOM fall-even -NOM do-PAST COMP think
 ‘Mary thinks that the tree even fell.’

It thus follows that the nominative subject does not move to the edge of TP in Japanese (Fukui 1986): since the past tense morpheme *ta* is the head of the embedded T, the moved category in (3), containing the intransitive verb and its external argument, cannot be TP, but v*P. By contrast, the focalized constituent in (4), consisting of the unaccusative verb and its internal argument, can be VP and involves no offending trace, which nullifies the PBC account. The ill-formedness of (2c) is thus ascribed to the fact that only V cannot undergo scrambling in Japanese: as indicated in (5), V itself cannot be scrambled even though the verb is agentive.

- (5) *[_v *tabe-sae*]_i John-ga [_{vP} sushi-o t_i] si-ta.
 eat-even -NOM -ACC do-PAST ‘John even ate sushi.’

The remaining question is how we can explain the ill-formedness of (4) without recourse to the PBC.

3. An Alternative: Movement to the Edge of FocP Notice that Basque also exhibits a phenomenon similar to Japanese focalized VP-movement: movement of a focalized VP in Basque forces the dummy verb *egin* ‘do’ to

Dummy verbs and movement of a focalized VP in Japanese

occur. However, unlike Japanese, no agentivity constraint is observed in Basque (Haddican 2007).

- (6) a. Etxea eror-i da. b. [Eror-i] egin-Ø da etxea.
 House fall-PERF AUX fall-INFIN do-PERF AUX house
 ‘The house has fallen.’ ‘The house has FALLEN.’

Haddican (2007) argues that elements bearing [+noun] can move to the edge of FocP. Since Basque infinitives take a D head (= (7)) and trigger transitive agreement on the auxiliary (= (8)), the infinitival affixes *-i/-n* can bear the feature [+noun], which also makes the focalized infinitival VP [+noun].

- (7) Sentitzen dut [Miren berandu etorri iza-n-a].
 regret AUX Miren late come have-INFIN-the
 Jon-ek egi-ten du astero-astero [bertara joa-n].
 Jon-ERG do-IMP aux-TR weekly-weekly there go-INFIN

Following Haddican (2007), I propose that [+noun] is also crucial to licensing movement of a focalized VP in Japanese. However, Japanese focus particles cannot always be [+noun], otherwise scrambling of focalized VP with any type of verb would be possible, contrary to fact. As illustrated in (9), the Japanese focus particles are merged not only to verbs but also to nouns (e.g., *ki* ‘tree’), adjectives (e.g., *kawai* ‘pretty’), and postpositions (e.g., *kara* ‘from’). This leads us to assume that unlike Basque infinitival affixes, the Japanese focus particles are neutral with respect to the categorial status and not intrinsically [+noun].

- (9) *ki-sae/mo*; *kawaiku-sae/mo*; *ie-kara-sae/mo*

However, the Japanese focus particles can be counted as [+noun] when they are attached to agentive verbs: the resulting focalized VP, which involves PRO controlled by the agentive subject (cf. Hoshi 1994), is selected only by the main verb *si*. Since main *si* assigns the agent θ -role to the subject and takes an NP as its complement, the infinitival VP with the focus particle is regarded as [+noun]. Examine (10), where the focalized VP with the unaccusative verb cannot be associated with the nominalizer *koto* ‘fact’. This is consistent with the assumption that the focalized VP with non-agentive verbs is not counted as [+noun] and cannot be selected by main *si*.

- (10) a. John-ga [_{VP} PRO *hasiru*] *koto-sae/mo si-ta*.
 -NOM run fact-even/also do-PAST
 b. *_{[VP} [_{VP} *ki-ga taoreru*]] *koto-sae/mo si-ta*.
 tree-NOM fall fact-even/also do-PAST

4. Dummy *Si* and the Agentivity Constraint If *si* is exploited as a dummy verb, neither can it assign the agent θ -role to the subject nor select any NP complement, which is actually the case for the non-agentive focalized VP in (1c). The ill-formedness of (4) is thus due to the fact that the non-agentive focalized VP, which is not selected by main *si*, is not regarded as [+noun] and cannot move to FocP. Here I propose that dummy *si* occurs in non-agentive *v* whenever V-movement is blocked by the focus particle attached to V. The assumption that dummy *si* occurs in non-agentive *v* is buttressed by the fact that the consecutive use of *si* with a non-agentive verb is totally unacceptable. This is because there is only one syntactic slot (= *v*) available for dummy *si*.

- (11) a. ?John-ga *hasiri-sae si-mo si-ta*
 -NOM run-even do-also do-PAST
 b. **ki-ga taore-sae si-mo si-ta*
 tree-NOM fall-even do-also do-PAST

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Nuclear Stress as an Abstract Rhythmic Notion: Evidence from Turkish

Keywords: Nuclear Stress, Nuclear Pitch Accent, Intransitive Sentences, Turkish

There are two distinct views on the relation between Nuclear Pitch Accent (NPA) and Nuclear Stress (NS): (1) The pitch-accent first theory (e.g. Selkirk 1984, Gussenhoven 1984) argues that the grammar assigns pitch accents according to a set of algorithms sensitive to predicate-argument relations, and the last pitch-accented word is perceived as most prominent. (2) The stress-first theory argues that NS is computed either directly from the syntactic structure (e.g. Cinque 1993, Kahnemuyipour 2004) or on the basis of a metrical structure derived from the syntactic structure (e.g. Halle & Vergnaud 1987, Ladd 1996, Zubizarreta & Vergnaud 2005). NS is then aligned with the NPA at the intonational level. Under this view, NS is an abstract rhythmic notion, which is acoustically identified, possibly in different ways across languages. The present paper presents evidence from Turkish that supports the latter view.

Although the NS word in Turkish has a pitch accent, it is not the most prominent peak in the f_0 contour. This has been shown in Ipek 2011 for subject-object-verb (SOV) sentences. Rather the most prominent f_0 event is found at the right-edge of the preceding word, namely at the right edge of S as is displayed in figure (1):

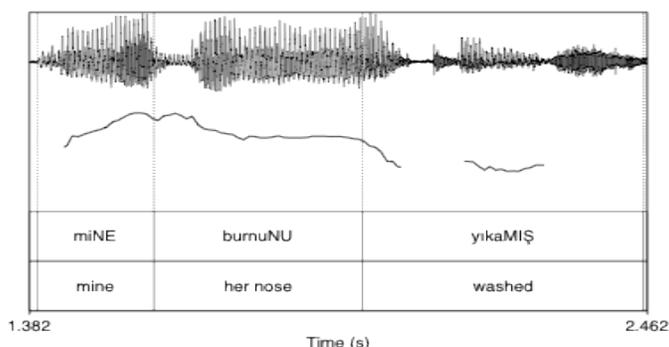


Figure 1. Sample pitch track of an SOV sentence *Mine burnunu yıkamış* (Mine washed her nose). Capitalization in the first tier indicates the stressed syllable. The object *burnunu* is the most prominent word in the sentence, i.e., NS word.

The present study extends Ipek 2011’s study to intransitives, namely to categorical (topic-comment) andthetic (eventive) sentences. As has been shown for Germanic (Sasse 1987, Kratzer & Selkirk 2007, Zubizarreta & Nava 2011, Féry 2011), categorical SV sentences carry NS on the verb andthetic sentences on the subject. We replicated these results for Turkish with a small perceptual study. We created ten sentences five of which were eventive and five of which were generic. An example for each is given in Table (1):

Eventive	Generic
Sabaha karşı babamlar geldi.	Sabaha karşı babalar horlar.
Morning.dat towards dad.POSS come.PAST	Morning towards dad.PLU snore.AOR
“Towards the morning, my dad came.”	“Towards the morning, dads snore.”

Table 1: Sample sentences for eventive and generic readings.

Participants heard twenty-five pseudorandomized sentences (ten target and fifteen filler items) produced by a male Turkish native speaker, and were asked to provide ratings of stress from 1(‘not ‘prominent’) to 5(‘very prominent’) for the two underlined words. Table (2) shows the average rating of prominence for Subject and Verb for two types of intransitive sentences:

	Eventive Sentence	Generic Sentence
Subject	3.9	3
Verb	2.4	3.7

Table 2: Prominence rating of Subject and Verb under eventive and generic readings.

We complemented the perception study with a production study to determine the correlation between f_0 events and NS. As in Ipek 2011, we found that the higher f_0 movement was realized on the word that

precedes the NS word, and not on the NS word itself. A sample pitch track is given figure (2) for a categorical statement (NS on verb; main tonal event on right edge of S) and for an eventive sentence in figure (3) (NS on S; main tonal event on right edge of temporal phrase)

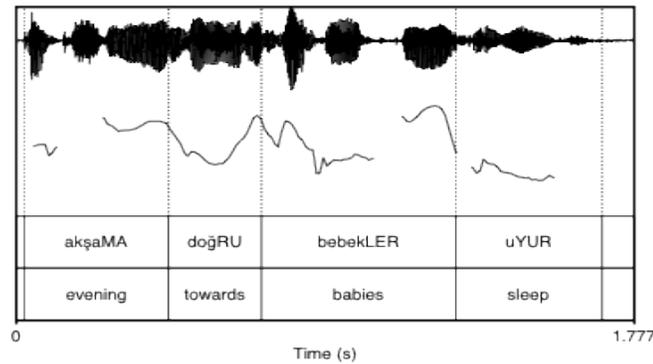


Figure 2. Sample pitch track of PP S V sentence *Akşama doğru bebekler uyur* (“Towards the evening babies sleep”). The verb *uyur* is the NS word.

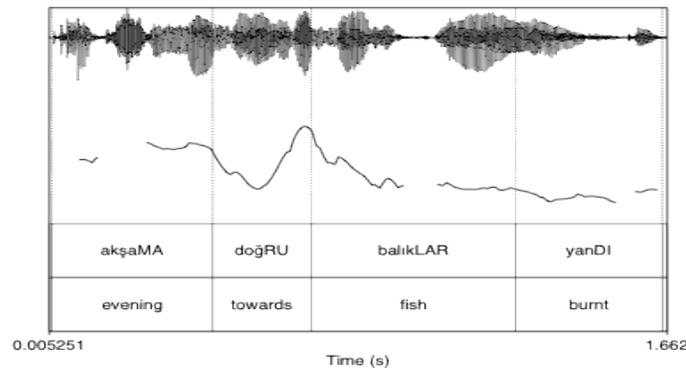


Figure 3. Sample pitch track of PP S V sentence *Akşama doğru balıklar yandı* (“Towards the evening the fish burnt”). The subject *balıklar* is the NS word.

A plausible way of looking at the Turkish phenomenon is to analyze the f_0 event that precedes the NS as a juncture marked by a high tone – call it H^*n , distinct from the ordinary phrasal high tone H^* (Ipek & Jun 2013). This is supported by the present study in that H^*n is higher than H^* . We hypothesize here that the insertion of this H^*n is triggered by the NS. If this conclusion is correct, it favors the view that NS is an abstract rhythmic notion and that languages differ with respect to its acoustic correlates. In Turkish, the major tonal event does not appear on the phrase that contains the NS, but rather on the right edge of the phrase that immediately precedes it.

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Online comprehension of SOV and OSV sentences in Turkish with a supporting context

Introduction: In this study, we investigated the online comprehension of canonical (SOV) and non-canonical (OSV) sentences in Turkish using a self-paced reading paradigm. We will report that OSV sentences are not more difficult to comprehend than SOV sentences when a supporting context was provided, and the comprehension difficulty of non-canonical sentences in Turkish, like in Finnish (Keiser & Trueswell, 2004), may be due to discourse-based factors rather than the complexity/frequency-based factors (c.f. Kuribayashi, 2009).

Previous studies have shown that canonical sentences are generally easier to comprehend than their non-canonical counterparts in various languages. Some studies attribute the comprehension difficulty of non-canonical sentences to their structural complexity and/or structural infrequency because canonical sentences are less complex and have higher frequency (e.g. Frazier & Flores d'Arcais, 1989; Hyönä & Hujanen, 1997). On the other hand, some studies attribute the processing difficulty of non-canonical sentences to discourse-based factors, (Keiser and Trueswell, 2004). For example, Keiser and Trueswell argued that old (given) information tends to occur early, and new information tends to occur later in the sentences. They showed that when the subject and object were mentioned in a supportive context, non-canonical sentences (OVS) were not more difficult to process than canonical ones (SVO) in Finnish. Based on this result, Keiser and Trueswell concluded that the processing difficulty of non-canonical sentences in the previous studies was due to violations of discourse factors, rather than the complexity/frequency-based factors. However, in establishing discourse relationships, Keiser and Trueswell repeated nouns from the preceding contexts in their test sentences. Therefore, we are not sure whether their results are due to repeated noun benefit or givenness of the subject and object nouns in the preceding context. More importantly, we also do not know whether the impact of the discourse can be generalized to other languages having different word orders.

In Turkish, Kuribayashi (2009) conducted a whole-sentence reading experiment and showed that canonical SOV sentences were easier to comprehend than non-canonical OSV sentences. However, since Kuribayashi did not provide any discourse context in his experiment, we are not sure whether his results are due to complexity/frequency-based factors or discourse-based factors (lack of context). Therefore, the current study aimed to examine the impact of the discourse on the comprehension of SOV and OSV sentences in Turkish, and explore whether the findings of Keiser and Trueswell in Finnish can be generalized to other languages, as well.

Experiment: We conducted a self-paced reading experiment with 35 native speakers of Turkish to examine the impact of the information status of the subject and object nouns on the comprehension of SOV and OSV sentences by manipulating the information status of the subject and the object noun. In the present study, using Latin Square design, we presented 24 target sentences with 48 filler items in random order. The target sentences were always preceded by a context as shown in (1), and embedded in the beginning of a complement clause, as shown in (2a)-(2d). To avoid unnaturalness and repeated name effects, we used pronouns when referring to given referents in the target sentences. By doing so, we can also provide a cross-linguistic evidence for the results of Keiser & Trueswell (2004), regarding the repeated name effects. If the results of Kuribayashi (2009) are simply due to complexity/frequency-based factors, the canonical sentences should be read faster than the non-canonical sentences because canonical sentences have higher frequency and less complexity in Turkish (Demiral, 2007). Moreover, this difference should be observed at embedded verb position (aldatıyor) because the argument structures of the SOV and OSV sentences are first determined at the embedded verb position. On the other hand, if the results reported in Kuribayashi (2009) are due to lack of discourse, the comprehension difficulty of the embedded verb will be affected by the information status of the nouns, irrespective of word order.

Test sentences: (1) Preceding context, (2) Target sentences

- (1) Tren istasyonu-ndaki bilet satıcısı-nın ismi Vedat-tı.
Train station-at ticket seller-GEN name Vedat-PAST
'The name of the ticket seller at the train station was Vedat.'

- (2) a. **Canonical - Given subject / new object:**
 O Mine-yi aldat-ıyor diye istasyon amiri söyle-di
 He Mine-ACC cheat-PROG that stationmaster say-PAST
 ‘The stationmaster said that he (Vedat) cheats Mine.’
- b. **Canonical – New subject / given object:**
 Mine o-nu aldat-ıyor diye istasyon amiri söyle-di
 Mine he-ACC cheat-PROG that stationmaster say-PAST
 ‘The stationmaster said that Mine cheats him (Vedat).’
- c. **Non-canonical – New object / given subject:**
 Mine-yi o aldat-ıyor diye istasyon amiri söyle-di
 Mine-ACC he cheat-PROG that stationmaster say-PAST
 ‘The stationmaster said that he (Vedat) cheats Mine.’
- d. **Non-canonical - Given object / new subject:**
 O-nu Mine aldat-ıyor diye istasyon amiri söyle-di
 He-ACC Mine cheat-PROG that stationmaster say-PAST
 ‘The stationmaster said that Mine cheats him (Vedat).’

Results and discussion: The results of an ANOVA showed that the main effect of information status of the nouns was significant at the embedded verb (aldatıyor) position ($F_1(1,32) = 5.78, p=0.022$; $F_2(1,21) = 5.51, p=0.029$). On the other hand, the main effect of word order and the interaction between word order and information status of the nouns were not significant. This shows that the verbs after the new-given noun order are read faster than the verbs after the given-new noun order, irrespective of word order. This may be due to fact that pre-verbal position is focus position in Turkish, and given nouns are easier to be focused than the discourse-new nouns. This result indicates that the comprehension ease/difficulty of canonical and non-canonical sentences is influenced by the information status of the nouns, rather than the word order per se. This result is inconsistent with the findings of Kuribayashi (2009), and suggests that non-canonical sentences are not more difficult to comprehend than canonical sentences in Turkish (Özge, Marinis and Zeyrek, 2013), when a supporting context is provided (Keiser and Trueswell, 2004). In the first two words, only the main effect of the information status of the nouns was significant. In the first word, given nouns (pronouns) were read faster than the discourse-new nouns ($F_1(1,32) = 3.84, p=0.059$; $F_2(1,21) = 5.33, p=0.031$). In the second word, on the other hand, discourse-new nouns were read faster than the given nouns ($F_1(1,32) = 12.26, p=0.0001$; $F_2(1,21) = 40.84, p=0.0001$). These results confirm that old-new information order is also easier to process than new-old information order in Turkish, regardless of the surface word order, as in Finnish (Keiser and Trueswell, 2004).

Conclusion: Overall, this study suggests that non-canonical sentences are not always more difficult to comprehend than the canonical ones, and that the comprehension difficulty of non-canonical sentences in the previous studies may indeed be due to violations of discourse demands. More importantly, complexity/frequency based accounts cannot explain the observed processing patterns in Turkish, while discourse based factors can explain. Thus the current study extends Keiser and Trueswell’s results for Finnish.

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(10) and the presence of it in (11) and (12).

- (9) #Alsu Narigul kvska bul-ga karaganda² uzun-rak
 Alsu Narigul short AUX-DAT compared.to tall-COMP
 int. 'Alsu is taller than Narigul is short.'
- (10) #Alsu Narigul kvska-ly bulga karaganda uzun-ly-rak
 Alsu Narigul short-ATR AUX-DAT compared.to tall-ATR-COMP
 int. 'Alsu is taller than Narigul is short.'
- (11) ^{ok}Alsu Narigul kvska bul-ga karaganda uzun-ly-rak
 Alsu Narigul short AUX-DAT compared.to tall-ATR-COMP
 'Alsu is taller than Narigul is short.'
- (12) ^{ok}Alsu Narigul kvska-ly bul-ga karaganda uzun-rak
 Alsu Narigul short-ATR AUX-DAT compared.to tall-COMP
 'Alsu is taller than Narigul is short.'

Additional argument in favor of diverse scales can be gained from the structures of scales (cf. Kennedy & McNally 2005). All derived adjectives present the open scale pattern with endpoint-oriented modifiers. (11) shows results for the closed scale pattern, all other conform.

- (11) Closed scale pattern
- | | | | | | | | |
|------------|-------|---|------------|-----------|---|------------|-----------|
| a. bik | tuly | / | #bik | tuly-ly | / | #bik | buš-syz |
| completely | full | | completely | full-ATR | | completely | empty-NEG |
| b. bik | buš | / | #bik | buš-ly | / | #bik | tuly-syz |
| completely | empty | | completely | empty-ATR | | completely | full-NEG |

Now it is clear that dimensions for simplex and derived adjectives are different, and that with all derived adjectives only one type of scale is associated.

Glosses

ABL – ablative case	ADD – additive particle
ATR – attributive suffix	AUX – auxiliary verb
COMP – comparative suffix	DAT – dative
NEG – negative attributive suffix	PRS – present

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2 About the distribution of the postposition *karaganda* and of ablative case cf. Bylinina (2011).

The Demise of *Sim-u*

The causative suffix *sim-u* in OJ was on the decline by the 8th AD and was largely replaced with the newer sibling *(s)ase*. The reason for this transition is not well understood. Following Distributed Morphology (Marantz 1997, 2007) and a decompositional approach to morphosyntax (Harley 1995, Nakajima 2011, to appear), this paper argues that *sim-u* was marginalized because it was too domain specific and lacked syntactic flexibility while the new *(s)ase* was capable of augmenting properties of roots ranging widely from transitivity alternation to causative. *(s)ase* possesses this potency because its constituting parts, *a*, *s* and *e* work as independent heads and give plasticity to syntactic and semantic representations.

1. Demise of *Sim-u*

Traditional Japanese grammarians hypothesized that *sim-u* was replaced with *(s)ase* alongside the development of transitivity alternation. For instance, Kuginuki (1996) postulates three diachronic stages for the alternation.

- (1) I. Alternation is marked with differences in conjugational patterns.
e.g. *tat-u*^{intr.} ‘stand’ (Quatrigrade) \leftrightarrow *tat-u*^{tr.} ‘stand’ (Lower Bigrade)
- II. Mark a root with *s* or *r* for transitive and intransitive, respectively.
e.g. *nar-u*^{intr.} ‘become’ \leftrightarrow *nas-u*^{tr.} ‘accomplish’
- III. Agglutinate *s/(s)as* to roots for transitivity alternation.
e.g. *ak-u*^{intr.} ‘open’ \leftrightarrow *ak-as-u*^{tr.} ‘reveal’

These changes were to enhance grammatical productivity of roots by neutralizing the morphophonological conditions they arbitrarily set. If this is correct, the transition in causative from *sim-u* to *(s)ase* must have occurred between the stages II and III of the transitivity alternation, and in fact this is what Kuginuki assumes. He also asserts that *(s)ase* emerged due to ‘analogy’ with the transitivity alternation. This theory explains why the transitivity alternation is morphologically complex as we see now but does not spell out what the analogy was and why *sim-u* had to be replaced with the new *(s)ase*.

2. The Decompositional Approach to Causative

A radically different approach on transitivity alternation and causative has emerged recently following Distributed Morphology (Marantz 1997, 2007, Nishiyama 1998, Harley 1995, 2008). In particular, Nakajima (2011, to appear) argues that *(s)ase* is not a single morpheme as it has traditionally been assumed but is a composite of independent heads, *v*, *v*, *f* and GET.

- $$(2) \quad [\text{BENEFACTIVE}^i \ [\chi^i \ [\text{AGENT} \ [\text{THEME} \ [\sqrt{\text{ROOT-}} \ v]^{\text{VP}} \ v]^{\text{P}} \ f]^{\text{P}} \ \text{GET}]^{\text{GETP}}]$$
- $\begin{array}{cccc} \downarrow & \downarrow & \downarrow & \downarrow \\ (s)a & \emptyset & s & e \end{array}$

v is the ‘little’ *v* that types a root as V. It licenses THEME in its spec, *v*P position if the root is either transitive or unaccusative. Morphologically, it is an existential verb *a-ru* ‘be’. *v* is the ‘small’ *v* that transitivizes a root and licenses AGENT in its spec position when it is active. *v* and *v* compositionally make up a caused Inner Event (IE). *f* is a new head and is the heart of causative: its exponent *s* is the grammaticalized *s-u* ‘do’ that takes IE as a complement and composes a causing Outer Event (OE). It licenses an implicit argument χ in its spec. Due to the features of the head *s* ‘do’ the implicit argument χ has a role of INITIATOR. GETP may project on top of *f*P that is headed by the grammaticalized *e* ‘get’, hence the name. This head could give its argument various roles including BENEFACTIVE. The coindexation of the argument and the implicit χ gives rise to the interpretation of BENEFACTIVE INITIATOR, i.e., the CAUSER.

The emergence of this system fundamentally changed how roots are syntacticized in Japanese. Take a look at how it works with the root $\sqrt{\text{tukam-}}$ ‘grab’. There are altogether eight combinatory possibilities. I omit *v* since it is always null.

(3)	Root	v	f	GET	Tens	Semantics
a.	√tukam-				u	grab
b.	√tukam-	a			ru	hold onto
c.	*√tukam-		s			----
d.	√tukam-	a	s		u	let/make grab
e.	√tukam-			e	ru	be able to grab
f.	√tukam-	a		e	ru	catch/arrest
g.	*√tukam-		s	e		----
h.	√tukam-	a	s	e	ru	make/let grab

Among the eight derivatives, six are actually attested. (3c) and (3g) are excluded because the root final consonant /m/ and the phonetic exponent /s/ in *f* makes /ms/ sequence, which is not possible in this language. (3a) is considered to be the default case, and the verb is transitive. (3b) has the overt *v a* that extends the moraic structure of the root and alters the pitch contour from LHL in the default (3a) to LHHL. These changes result in giving (3b) new but related meaning. When *e*, GET, is added to (3b) as in (3f), yet another related meaning emerges. If *e* appears alone as in (3e), it gives the root potential interpretation. Importantly, (3d) and (3h), in which *s* appears, are causative constructions where the former with *-as* is called the ‘short’ causative. Thus, the decompositional analysis in (3) reveals a highly structured system of root augmentation that covers both lexical and syntactic domains.

3. The Rigidity of *Sim-u*

The (*s*)*ase* root augmentation system is extremely compositional, versatile and systematic. *Sim-u*, on the contrary, lacks these properties, and as a result, it became redundant and was slowly phased out from Japanese grammar except for certain stylized contexts.

The inflexibility of *sim-u* originates from the internal constellation of the heads *s* and *m*. With (*s*)*ase*, the optional *s* at the beginning is a phonological spread of *s* in *f* (Nishiyama 1998). Furthermore, *a* is a cyclic head that defines the category and characteristics of roots (Samuels 2012). If the initial *s* in *sim-u* is also *f*, then *m* is the OJ equivalent of *e*. Indeed, *m* was an auxiliary that expressed deontic modality. If so, *sim-u* is comparable to the *se* part of (*s*)*ase* where the vowel *i* appears to break the /sm/ CC hiatus. See the comparison below.

(4)	√Root-	[[v	v] ^{IE}	f	GET] ^{OE}	
	(s)a	∅	s	e		→ (s)ase
			s	i	m	→ sim-u

Note that *sim-u* lacks the cyclic head *a* in its head constellation. Nor does it show the phonological *s* spreading. These facts suggest that *sim-u* does not appear right adjacent to roots and keeps distance from them. As a consequence, it can only take the Irrealis form of a root and is syntactically and semantically limited to causative formation. In other words, it is comparable to the light verb *sur-u* ‘do’ and constitutes only OE. This makes a stark contrast with the productivity of (*s*)*ase* in (3). Due to this rigidity, *sim-u* was disfavored and marginalized as a productive part of Japanese grammar.

In conclusion, the demise of *sim-u* shows an important shift that took place in Japanese grammar, and what emerged was a productive and highly malleable root augmentation system of (*s*)*ase*. A similar shift occurred in passive as well. The OJ passive auxiliary *ray-u* was replaced with equally productive (*r*)*are* and soon disappeared.

If the elided material is considered to be an exact copy of the expressed TP, the relevant reading in (7) cannot be due to accidental coreference as the copy would then contain information relative to the index *i* forcing this sentence to mean only that my dog doesn't bite *his_i friends*. However under an account where the *pro* possessor in the object is bound, there is no trouble in conceiving that the possessor in the second conjunct is binding into the ellipsis site. And the availability of this suggests that the overt possessor in the first conjunct has raised.

Yet, in order to account for the difference between the overt and the dropped possessor in (4) with respect to triggering the principle C violation, I begin by arguing against Öztürk's (2001) analysis claiming the absence of *pro* in the language's lexicon. There, agreement morphology, instead of *pro*, is generated in Spec DP, while overt possessors, when licensed, are generated in a nominal functional projection labeled TopP dominating the DP, or perhaps even within the clausal TopP (Rizzi 1997). I believe that in such an analysis no constraint accounts for the isolated ungrammaticality of (8) below:

- (8) *Ben-im kedi-m ve kopek-∅ veteriner-de (9) [Ben-im [kedi-m ve kopeg-im]] ...
 1S-GEN cat-AGR and dog-∅ at.the.vet (10) [Ben-im [kedi ve kopek]-∅] ...
 My cat and dog are at the vet (11) [Ben-im [kedi ve kopeg-im]] ...

While the full paradigm is accounted for if it is assumed (i) that *pro* is available and (ii) that possessors are generated within the possessive phrase, forming a constituent with the conjunction of two possessives of identical structure, whether the possessor is expressed or not. (The constituency is given above according to this proposal.) I follow Kornfilt (2000, 2005) in the claim that these projections are labeled AgrP (I leave the question of whether it projects or not in (10 for further research) and that the realization of the agreement morpheme is triggered only when the specifier of AgrP is filled. Thus I give (glossed) the following derivational structure for genitive-possessives.

- (12) [_{AgrP} {POSSESSOR}] [_{Agr'} [_{PossP} t_{POSSESSOR} [POSSESSUM Poss₀]]-Agr₀]]

I last claim that at this step of the derivation, a topic driven movement raises the overt possessive to TopP on the clausal spine. Thus, the Spec AgrP position serves as an escape hatch for overt pronominal possessors while blocking *pro*'s further movement (see Bošković and Şener 2012 for a similar claim). This makes a crucial prediction: Overt possessors of non-agreeing possessive phrases should not trigger the principle C violation, which is satisfied as illustrated in (13):

- (13) [O_i-nun {kopek / *kopeg-i}] Ali_i-yi isir-mis
 [3S-POSS {dog / dog-3S.POSS}] Ali-ACC bit-EVID
 His_i dog bit Ali_i

Moreover, the possessor's raising is then obligatory provided that the possessor agrees. This can independently be motivated by the observation that Turkish overt pronominal subjects are topic shifters (Enç 1986, Erguvanlı-Taylan 1986, Öztürk 2001) while *pro* is not, although this set can now in principle be extended to all agreeing overt pronominals, with consequences that can be accommodated following Belletti's (2004) proposal for a finer grained TP area.

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Opacity Effect on Ditransitive Constructions in Turkish

This paper distinguishes between two types of movement within the VP domain in Turkish, one of which gives rise to opacity. In a construction in which the subject cannot be a potential antecedent, a VP-internal argument can license the anaphor in Turkish (1). (2a-b) illustrate the absence of asymmetry between the IO and DO in licensing the anaphor, different from a language like English in which the two arguments show asymmetry in binding (3a-b). However, (4a-b) indicates that the two VP-internal arguments in Turkish also exhibit asymmetry in anaphor binding in certain cases. I argue that the asymmetry in (4a-b) is due to OCC-triggered movement which creates an opacity effect blocking the coindexation of the two VP-internal arguments. The paper hence distinguishes between two types of movement, one of which gives rise to opacity, i.e. OCC-triggered movement, as opposed to Case-driven movement.

Given that anaphors are not subject-oriented in Turkish, I propose a high applicative analysis (c.f. Pylkkänen, 2002, 2008) for ditransitives in Turkish. Following the spirit of Tonyalı (2013)'s analysis, which also suggests a high applicative analysis of ditransitives in Turkish, I assume the base structure in Turkish to be $\langle IO, DO \rangle$ in which DO is merged as the sister of V and IO is merged above; as the specifier of the Applicative head where it checks its case as represented in (5). Yet different from Tonyalı (2013), who claims that Turkish could parametrize Move before Merge and thereby accounts for the DO moving over IO, I suggest $\langle DO, IO \rangle$ order is an instance of case checking since it is well-recorded in the literature that overt accusative marking is an indication of specificity and the noun's being outside of VP in Turkish (Kennelly, 1994; Zidani-Eroğlu, 1997; Keleşir, 2001, Arslan-Kechriotis, 2006). Within these lines, I suggest DO moves out of its merge position for case reasons to Spec vP and the derivation in (6) accounts for $\langle DO, IO \rangle$ order. I further suggest that $\langle IO, DO \rangle$ order is an indication of another derivation where v comes into the derivation with topic related OCC feature (cf. Chomsky, 2001) which attracts IO to [Spec, vP] as in (7).

Within the light of the high applicative analysis and two derivations in ditransitives, I claim that binding is an anywhere condition which holds before or after Internal Merge excluding OCC triggered movement (cf. Chomsky, 2001), which creates opacity. The evidence for the claim that anaphor binding in ditransitives is conditioned regarding opacity constraints comes from the licensing environments of anaphoric expressions in Turkish, *kendi* 'self', and its inflected variants for person (cf. Özsoy, 1983; Göksel and Kerslake, 2005). The relevant binding domain is the whole clause for ditransitive constructions since it is the minimal domain where the anaphor, its governor and the accessible subject occur (cf. Chomsky, 1986). The ambiguity of (8) and (9) indicate that binding relation holds throughout the derivation, coindexation of the anaphor with its potential antecedents can occur before or after case-triggered Internal Merge meeting the c-command requirement. Interestingly, however, IO cannot be bound by DO in derived $\langle IO, DO \rangle$ order as in (4a-b). Based on that, I argue OCC triggered Internal Merge interferes with anaphor binding as opposed to case-triggered Internal Merge, and OCC yields an opacity effect. However, a comparison of (4a-b) and (10) indicates that IO can bind DO after OCC triggered Internal Merge. Thus, I further suggest that case-triggered and OCC triggered Internal Merge occur simultaneously. As an instance of simultaneous operations, DO cannot c-command the anaphor (IO) anywhere during the derivation of $\langle IO, DO \rangle$ order, which captures the ungrammaticality in (4a) and unambiguity in (4b).

Based on the high applicative analysis of ditransitive constructions with its derivations and the data on the anaphor binding in Turkish, I claim that anaphor binding holds throughout the derivation of ditransitive constructions yet OCC triggered Internal Merge creates opacity effect blocking the coindexation of two VP-internal arguments. This provides evidence for the claim that Case-driven and OCC triggered Internal Merge are distinct in nature, the former being an instance of Agree yet the latter being an instance of the information structure, hence targeted above the v .

- (1) Sanki bana kendi-m-i anlatıyorlardı.
I(dat) self-1sg.poss-acc
‘[It was] as if they were talking to me about myself’
[Göksel and Kerslake (2005:268) Example (34)]
- (2) a. Muhabir ünlü şarkıcı-ya_i kendin-i_i sor-du.
Reporter famous singer-Dat. self-Acc. ask-Past.
‘The reporter asked the famous singer_i what kind of a person s/he_i is.’
b. Muhabir ünlü şarkıcı-yı_i kendin-e_i sor-du.
Reporter famous singer-Acc. self-Dat. ask-Past.
‘The reporter asked him_i / her_i what kind of a person the famous singer_i is.’
- (3) a. I showed Mary_i herself_i.
b. * I showed herself_i Mary_i.
- (4) a. * Sanki kendim-e_i ben-i_i anlat-ıyor-lar-dı.
Self-1sg-Dat I-acc talk-Pres.Prog.-3pl-Past
Intended meaning: ‘[It was] as if they were talking to me about myself’
b. Ali_i kendin-e_i/_j Ayşe-yi_j sor-du.
Ali. kendi-Dat. Ayşe-Acc ask-Past.
‘Ali_i asked what kind of a person Ayşe_j is to himself_i / * her_j.’
- (5) [_{VP} [_v [_{AppIP} IO [_{AppI} [_{VP} DO V] APPL]]]]
(6) [_{VP} DO [_v [_{AppIP} IO [_{AppI} [_{VP} t_{DO} V] APPL]]]]
(7) [_{VP} IO v [_v DO [_v [_{AppIP} t_{IO} [_{AppI} [_{VP} t_{DO} V] APPL]]]]
(8) Ali_i Ayşe-yi_j kendin-e_i/_j t_{DO} sor-du.
Ali Ayşe-Acc. kendi-Dat. ask-Past.
‘Ali_i asked what kind of a person Ayşe_j is to himself_i / her_j.’
(9) Ali_i kendin-i_i/_j Ayşey-e_j t_{DO} sor-du.
Ali kendi-Acc. Ayşe-Dat. ask-Past.
‘Ali_i asked Ayşe_j what kind of a person he_i / she_j is.’
(10) Ali_i Ayşe-ye_j kendin-i_i/_j t_{IO} t_{DO} sor-du.
Ali Ayşe-Dat. kendi-Acc. ask-Past.
‘Ali_i asked Ayşe_j what kind of a person he_i / she_j is.’

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The distribution of the copula and its implications on the analysis of 'Sluicing'-like constructions in Chinese, Japanese & Korean : Towards a unified account

1. **Introduction:** This paper examines the distribution of the copula in the 'Sluicing'-like construction in the three East Asian languages and investigates what implications it has on the analysis of this construction.

2. **Empirical challenges:** In Chinese 'Sluicing' the copula *shi* is obligatory before 'bare' wh-remnants such as *shei* 'what' and *shenmu* 'what' in (1a-b), but optional before 'complex' wh-remnants in (1c) (cf. Wei (2004)). In the Korean counterpart, the copula *-i-* is obligatory after wh-remnants in (2a), regardless of its complexity (Park (2001)), but it is not allowed after the adjectival wh-remnant in (2b) (Park (2012)). In the Japanese construction the copula *da* is optional after wh-remnants in (3a), regardless of its complexity (Takahashi (1994)), but not allowed either after the adjectival wh-remnant nor after such reason adverbials as *nandemata/nandatte* 'why' in (3b-c) (cf. Oguro (2013)).

3. **Chinese 'Sluicing':** We suggest that the copula *shi* in Chinese marks the equative relation between the subject of the 'sluiced' clause (i.e., the embedded question) and the wh-remnant (cf. Huang (1988)). If equative relation holds, *shi* is licensed between them. Otherwise, it is not. We argue that the subject of the 'sluiced' clause involves clausal structure as in (4) and the null operator moves from inside this clausal subject to its right/left edge (Nishiyama et al. (1996); Kuwabara (1997)), determining the label of the clausal subject (as found in free relatives or pseudoclefts of English) (cf. Chomsky (2013)). Now, the clausal subject can enter into predication relation with the wh-remnant, deciding whether equative relation holds or not.

Given the mode of predication determining whether equation holds or not, it is important what is the focus of question denoted by the 'sluiced' clause. Chomsky (1992:50) suggests that in a typical wh-construction, the focus of question can be either a wh-phrase or a word inside it, which can be derived in a right way in covert syntax by relying on the "copy and delete" theory of movement. We adopt Chomsky's suggestion to argue that in Chinese, the clausal subject involving covert structure or ellipsis can express the focus of question with an X variable in addition to an apparent XP variable left behind by the null operator.

Returning to the asymmetry between 'bare' (2a-b) and 'complex' wh-remnants (2c-d) in 'Sluicing', we note that 'bare' wh-remnants are not pied-piped, indistinguishable between X and XP as a focus of question. But 'complex' wh-remnants are pied-piped, distinguishable between them. Thus, when the focus of question in the subject of the 'sluiced' clause is a wh-word/wh-phrase and the wh-remnant is 'bare', equative relation always holds between them, correctly predicting the obligatory occurrence of the copula. However, if the focus of question in the subject of the 'sluiced' clause is a wh-word/wh-phrase and the wh-remnant is 'complex', equative relation only holds when the focus of question in the subject of the 'sluiced' clause is a wh-phrase, predicting the occurrence of *shi* in this case. When the focus of question in the subject of the 'sluiced' clause is a wh-word, the occurrence of *shi* is not allowed, thus accounting for the optional occurrence of *shi* before 'complex' wh-remnants.

3. **Korean 'Sluicing':** Unlike Chinese 'Sluicing', which requires 'deep' identity between the subject of the 'sluiced' clause and the wh-remnant depending on the size of the focus of question, Korean 'Sluicing' holds 'surface' specificational relation between them, linked by the copula *-i-*. In other words, the clausal subject is equated with the focal wh-remnant that corresponds to the gap/variable within it. However, because of the complementary distribution between the copula and adjectives in Korean, the latter as a wh-remnant forms not specificational but predicative relation with the clausal subject.

4. **Japanese 'Sluicing':** Unlike either Chinese or Korean 'Sluicing', Japanese 'Sluicing' takes both Pseudosluicing and Sluicing, accounting for the optionality of the copula *da* after the wh-remnant (cf. Takahashi (1994)). Just as in Korean, the adjectival wh-remnant only takes the former strategy, but such reason adverbials as *nandemata/nandatte* 'why' only take the latter one.

5. Time permitting, we also discuss similarities and differences between 'Sluicing' and apparently similar Cleft and Pseudocleft constructions in these languages in regard to the distribution of the copula.

Examples:

- (1)a. Zhangsan kan-dao mouren, danshi wo bu zhidao ***(shi) shei**
Zhangsan see-Asp someone but I not know be who
'Zhangsan saw somebody, but I don't know who.'
- b. Zhangsan mai-le yixie-dongxi, danshi wo bu zhidao ***(shi) shenme**
Zhangsan buy-Asp some-thing but I not know be what
'Zhangsan bought something, but I don't know what.'
- c. Zhangsan chu shi le, danshi wo bu zhidao **(shi) zai-nali**
Zhangsan have accident Asp but I not know be at-where
'Zhangsan had an accident, but I don't know where.'
- d. Zhangsan yao yi-fen mingdan, dan wo bu zhidao **(shi) duo-xiangxi(-de)**
Zhangsan want one-Cl list but I not know be how-detailed-De
'Zhangsan wants a list, but I don't know how detailed.'
- (2)a. chelswu-ka nwukwunka-lul cohaha-ciman, **nwukwu*(i)**-inci molukessta.
Chelswu-Nom someone-Acc like-but who-Cop be-Q don't know
'Chelswu likes someone, but I don't know who.'
- b. yenghuy-ka cha-lul sassta-tentey, **etmana pissa*(i)**-nci molukessta.
Yenghuy-Nom car-Acc bought-I heard, how expensive-be-Q don't know
'I heard Yenghuy bought a car, but I don't know how expensive.'
- (3)a. Mary-ga nanika-o katta rasii ga, boku-wa [**nani-o (da)** ka] wakaranai.
-Nom something-Acc bought likely but, I-Top what-Acc be Q not-know
'It is likely that Mary bought something, but I don't know what.'
- b. Hanako-ga kuruma-o katta rasii ga, boku-wa [dono kurai ookii **(*da)** ka] wakaranai.
-Nom something-Acc bought likely but, I-Top how much big be Q not-know
'It is likely that Hanako bought car, but I don't know how big.'
- c. John-ga naite-iru ga, [**nandemata/nandatte (*da)** ka-wa] fumei-da.
-Nom crying-be but why be Q-Top unclear-Cop
'John is crying, but why is unclear.'
- (4) Zhangsan kan-dao mouren, danshi wo bu zhidao [Zhangsan kan-dao-x] ***(shi) shei**
Zhangsan see-Asp someone but I not know Zhangsan see-Asp be who
'Zhangsan saw somebody, but I don't know who.'

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Person Agreement in the Denizli Dialect of Turkish

The verbal and nominal agreement show different behavior in the Denizli Dialect. Why and how are the nominal and verbal agreement mechanisms different and how can this difference be accounted for? This study groups the person agreement paradigms under two main headings, the *k* paradigm and the *z* paradigm (terms used for Standard Turkish), based on the differences and the similarities of the particular person markings within them. The *z* paradigm inflects the nominal elements and participles (fake verbal forms in Kornfilt, 1996), and the *k* paradigm inflects the verbal elements formed with past morpheme *-DI* and the conditional morpheme *-sA* (genuine verbal forms in Kornfilt, 1996).

The main differences between the two paradigms can be summarized as follows: (The copular structures are called combined predicates in this study following Sağ (2013), where the part before the copula (realized as *i*-/lengthening of the preceding vowel/null) is low predicate and the part above the copula is high predicate.)

The *k* paradigm and *z* paradigm can only occur predicate finally in the affirmative forms (not on the low predicate of a combined predicate structure).

- (1) a. oku-du (*-k)-:-du-k
 read-perf.past.indic.-(1pl)-cop-past.indic-1pl
 ‘It was the case that we read (it).’
 b. oku-ca: (*-z)-0-mış-ız
 read-fut-(1pl)-cop-evid.-1pl
 ‘Apparently, we will read (it).’

In the question forms, the *k* paradigm behaves differently from the *z* paradigm in that it can be seen in the following position of the low predicate and also at the same time in the predicate final position resulting in double agreement.

- (2) oku-du(-k) mu-:-du-k *the k paradigm*
 read-perf.past.indic.-1pl QP-cop-past.indic-1pl
 ‘Was it the case that we read (it)?’
 (3) oku-ca (*-z) mı-:-mış-ız *the z paradigm*
 read-fut-(1pl)QP-cop-evid.-1pl
 ‘Apparently, will we read (it)?’

The *k* and *z* paradigms respectively, show differences in coordination with *suspended affixation* (Lewis, 1967). In the coordination structures with the suspended affixation forms, “...certain affixes can be omitted from all conjuncts other than the final one while maintaining their semantic scope over the whole construction” (Kabak, 2007: 312). In (4b) the *z* paradigm person agreement marker *-z* is suspended; however, it maintains the semantic scope on the whole coordination phrase as opposed to *k* paradigm as in (5).

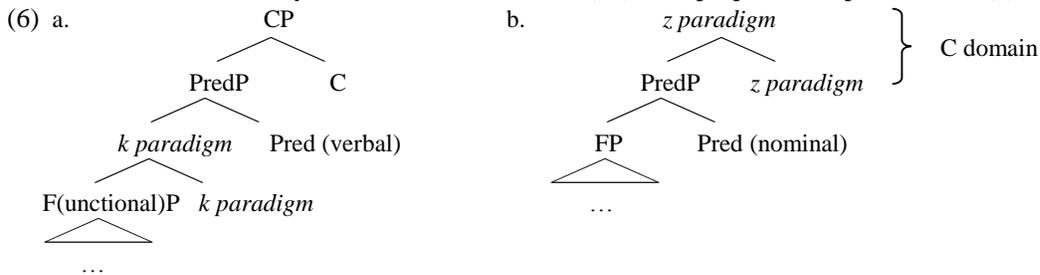
- (4) a. oku-yo-z ve anlat-ıyo-z *coordination without suspended affixation*
 read-imperf.pres.indic-2sg and explain-imperf.pres.indic-1pl
 ‘We are reading and explaining it.’
 b. [oku-yo ve anlat-ıyo]-z *suspended affixation of the z paradigm*
 [read-imperf.pres.indic and explain-imperf.pres.indic]-1pl
 ‘We are reading and explaining it.’
 (5) a. oku-du-k ve anlat-tı-k *coordination without suspended affixation*
 read-perf.past.indic-1pl and explain-perf.past.indic-1pl
 ‘We read and explained it.’
 b. *[oku-du ve anlat-tı]-k *suspended affixation of the k paradigm*
 [read-perf.past.indic and explain-perf.past.indic]-1pl
 ‘We read and explained it.’

In capturing the different behaviors of the *k* and *z* paradigms, I propose that the two agreement types, verbal (*k* paradigm) and nominal (*z* paradigm), have different syntactic positions, establishing different kinds of relations. The verbal agreement relation is established inside the predicate structure; however, the nominal agreement relation is established outside the predicate, in the C level (Miyagawa, 2010).

The reason for the different patterns of the *k* and *z* paradigms is that the *k* paradigm is realized above the highest functional head in the predicate (single or each predicate in the combined predicates), but it is inside the predicate level, while the *z* paradigm is realized in the C domain and it is out of the predicate, which is higher than the place where the *k* paradigm is realized. The idea of the realization of person agreement on C level is proposed in Miyagawa (2010) and I adopt this idea for the *z* paradigm, but not for the *k* paradigm.

In order to capture the differences between the places of the *k* and *z* paradigm person agreement, I suggest that there exists a PredP on each predicate structure (single or each predicate in the combined predicate structures) (following Baker, 2008, Bowers, 2010) Verbal predicates have the Pred head above the person

agreement and this Pred Phrase requires verbal person agreement inside it, which, I assume following Bayırlı (2012), makes the verbal predicate phrasal. Otherwise, the predicate cannot behave phrasally and be coordinated as in (5b) where the first conjunct does not have agreement. On the other hand, the Pred head is merged just above the nominal predicate and does not require the person agreement to be realized inside it, so the nominal predicates are already phrasal even in the absence of the person agreement, which is merged above the PredP; thus, they can be coordinated as in (4b). The proposal is represented in (6).



I also propose that the verbal low predicates have person agreement on them the *z* paradigm in the C level. By control, I mean that the features of the lower person agreement should be the same as the features of the person agreement on the higher level. Namely, while the agreement on the high predicate has the second singular person features, the agreement on the low predicate cannot bear the features other than the second singular, so the agreement on the higher position shares its person and number features with the verbal agreement on the low predicate by controlling it. However, the overt realization of the lower agreement is possible by an intervener (such as the question particle *mI*) between it and the copula; otherwise, it is realized covertly, the reason of which remains unclear at this point.

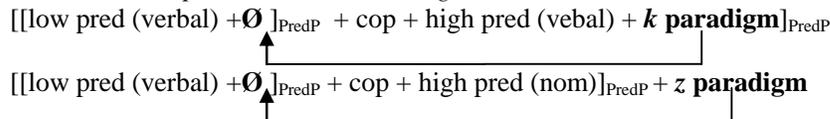
The nominal agreement occurs above the whole predicate structure in the C domain; namely, above the PredP that I assume to exist above each predicate structure. The verbal agreement (*k* paradigm) occurs inside this PredP and that is why I claim that we can see the double agreement on the combined predicates whose low predicate is verbal, because the verbal predicate is still in the predicate level (not in the C level), thus allowing the merge of a higher predicate. However, the nominal agreement occurs outside of the PredP, which hinders any realization of agreement on a nominal low predicate. If the nominal agreement relation holds, the further predicate structures on the existing predicate cannot be merged because it occurs in the C level.

The *z* paradigm can be thought as a barrier which closes a predicate, not allowing it to be a low predicate in the combined predicate structures, while the *k* paradigm does not close the predicate allowing it to combine with a higher predicate structure.

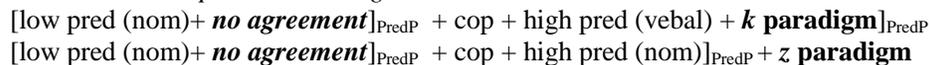
In summary, the verbal agreement (the *k* paradigm) can occur on the low predicate of a combined predicate structure as well as on the high predicate, and it allows the addition of higher predicates above it, whereas the nominal agreement (the *z* paradigm) can only occur on a single nominal predicate or above a whole combined predicate structure, not on the low predicate, and it does not allow the merge of higher predicates above it. The former can be controlled by a higher person agreement which might be the *k* paradigm inside the whole predicate or the *z* paradigm outside the whole predicate on the C level.

The syntactic positions of the *k* and *z* paradigms can be summarized and represented in (7). (\emptyset represents null agreement and arrows show control relation between the agreement on low and high predicates.)

(7) *the verbal low predicate+the verbal agreement:*



the nominal low predicate+no agreement:



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Nominalisation, Coordination, and Growth of Semantic Representation

1. DATA: In Japanese, the particle *no* exhibits two types of nominalisation. In each case, two clauses are coordinated by the clause-linking suffix *-i*, and the complex is nominalised by *no*.

- (1) **Participant nominalisation** (the *no*-part denotes objects, humans, etc.)
 [[*Tom-ga yogos-i, Mary-ga yabui-ta*] *no*]-*o* *Peter-ga yon-da*.
 [[Tom-NOM dirty-LINK Mary-NOM tear-PAST] NO]-ACC Peter-NOM read-PAST
 a. ‘Tom dirtied an object_i, and Mary tore it_i. Peter read it_i.’
 a’. ‘Tom dirtied some objects_i, and Mary tore them_i. Peter read them_i.’
 b. *‘Tom dirtied an object_i, and Mary tore another object_j. Peter read them_{i+j}.’
- (2) **Situation nominalisation** (the *no*-part denotes actions, events, situations, etc.)
 [[*Tom-ga nak-i, Mary-ga wara-tta*] *no*]-*o* *Peter-ga mi-ta*.
 [[Tom-NOM cry-LINK Mary-NOM smile-PAST] NO]-ACC Peter-NOM see-PAST
 a. ‘Tom cried and Mary smiled simultaneously. Peter saw the event.’
 a’. ‘Tom cried and Mary smiled simultaneously. Peter saw the event twice.’
 b. ‘Tom cried at one time and Mary smiled at another time. Peter saw these events.’

In participant nominalisation (1), the *no*-part may denote an object (e.g. book) that is dirtied by Tom and torn by Mary, as in (1a). The number of objects may be more than one, but in this case, **each** object must satisfy **every** description of pre-*no* clauses, as in (1a’). That is, **distinct** objects cannot be denoted, as in (1b). By contrast, in situation nominalisation (2), the *no*-part may denote two distinct events one of which solely consists of ‘Tom’s crying’ and the other of which solely consists of ‘Mary’s smiling,’ as in (2b). (The other relevant readings are also possible; see (2a) and (2a’).) In sum, the generalisation (3) can be made:

- (3) a. In participant nominalisation, each entity denoted by the *no*-part **must** satisfy every aspect of the content expressed by the pre-*no* clauses.
 b. In situation nominalisation, each entity denoted by the *no*-part **does not have to** satisfy every aspect of the content expressed by pre-*no* clauses.

This generalisation is novel, but one may claim that it is handled by the usual machinery: (3a) could be treated by across-the-board movement (Ross 1967) if we stipulate null items; as for (3b), every reading in (2) is described in event semantics (Parsons 1990). But this analysis captures the data **non-uniformly**. This is problematic because there are cross-linguistic and diachronic motivations for a **uniform** analysis (Author 2012). Further, the standard analysis must make other stipulations. For instance, ‘sum pairing’ (Grosu & Landman 2012) must be prohibited; otherwise, (1b) is wrongly ruled in. It may still be possible for a standard analysis to provide a unitary account if additional sets of stipulations are made, but I shall show that the asymmetry (3) naturally follows from the dynamics of incremental processing:

- This paper takes the perspective of how **semantic** representation is built up **incrementally** as a string is parsed online, **without** postulating syntactic structure (Cann et al. 2005).
- **Claim 1:** Two types of nominalisation are **reduced** to growth of semantic structure, namely what term the parser copies in processing *no*. If a non-situation term is copied, participant nominalisation emerges; if a situation term is copied, situation nominalisation emerges.
- **Claim 2:** The asymmetry (3) arises from the **independently motivated** ‘LINK’ device, a formal relation between two discrete propositions in virtue of a shared type-e element.

2. ANALYSIS: Cann et al. (2005) define *no* as a nominaliser that copies a **type-e** term in a proposition and pastes it in a new proposition. This **single** entry of *no* captures (3) uniformly.

2.1. Participant nominalisation: Prior to *no*, the parse of the string (1) yields the conjoined proposition (4). The suffix *-i* induces a LINK relation $\&_L$. $\&_L$ is a relation that pairs two propositions incrementally in virtue of a **shared type-e** element (Cann et al. 2005). That is, (i) the parse of *Tom-ga yogos* creates the initial proposition, (ii) the parse of *-i* relates it to an emergent proposition with a shared type-e element $(\epsilon, x, P(x))$, and (iii) the parse of *Mary-ga yabui-ta* fleshes out this emergent proposition. $(\epsilon, x, P(x))$ is the content of an object gap, expressed in the ‘epsilon calculus.’ An epsilon term is a type-e content defined as a triple: an operator, a variable, and a restrictor. In $(\epsilon, x, P(x))$, ϵ is an epsilon operator (analogous to \exists), x is a variable bound by ϵ , and $P(x)$ is a restrictor, where P is an abstract predicate.

(4) $yogos'(\epsilon, x, P(x))(Tom') \&_L yabui'(\epsilon, x, P(x))(Mary')$

The proposition (4) is then **evaluated**; that is, an epsilon term reflects all predicates within the proposition as a restrictor on the variable within the term. Thus, (4) is updated into (5). (In this ‘evaluation’ process, the abstract predicate P is deleted, given the concrete predicates.)

(5) $yogos'(a)(Tom') \&_L yabui'(a)(Mary')$ $a = (\epsilon, x, yogos'(x)(Tom') \&_L yabui'(x)(Mary'))$

The proposition (5) contains the epsilon term ‘a,’ which denotes an entity that is both dirtied by Tom and torn by Mary. Then, *no* copies ‘a’ and pastes it in a new proposition. After the whole string is parsed, ‘a’ becomes an argument of the matrix predicate *yon'* in this new proposition, as in (6). This semantic representation models the reading (1a).

(6) $yon'(a)(Peter')$ $a = (\epsilon, x, yogos'(x)(Tom') \&_L yabui'(x)(Mary'))$

Note that the epsilon operator ϵ models existential quantification. Thus, (6) is compatible with the reading (1a'). If the number of books (e.g., 2 books) is contextually identifiable, the parser may use the operator ϵ_2 (Cann et al. 2005). In this case, two objects are denoted each of which satisfies every description of the pre-*no* clauses. Finally, how about (1b)? The ‘evaluation’ process only outputs ‘a’ in (5) but not any other terms. This is because the suffix *-i* imposes a requirement that $(\epsilon, x, P(x))$ be **shared** by the LINKed propositions. Thus, (1b) is ruled out.

2.2. Situation nominalisation: In a more articulated representation, every predicate contains a type-e situation term. (This was ignored in Section 2.1 for brevity. In (1), *no* could copy a situation term, but this leads to crash because *yon'* (= *read'*) cannot select a situation term.) Thus, prior to *no*, the parse of the string (2) yields the semantic representation (7), where the two propositions are LINKed in virtue of the type-e constant s_{NOW} as a shared element.

(7) $nak'(Tom')(a) \&_L wara'(Mary')(b)$
 $a = (\epsilon, s, [s \subseteq R_1 \& R_1 < s_{NOW}])$ $b = (\epsilon, t, [t \subseteq R_2 \& R_2 < s_{NOW}])$

In (7), the proposition of *Tom-ga nak* contains the situation term ‘a’ and that of *Mary-ga wara* the situation term ‘b.’ Each term contains a time interval R and the utterance time s_{NOW} . This models a past event: each term represents a situation which took place before the utterance time s_{NOW} and which is contained in the interval R . R is initially **underspecified** and must be pragmatically specified (Kempson et al. 2011). In (7), R_1 and R_2 are saturated as certain time intervals (e.g. *today'*); for details, see below. The proposition (7) is then evaluated as in (8).

(8) $T(b) \& [S(a_b) \& [nak'(Tom')(a_b) \&_L wara'(Mary')(b)]]$
 $b = (\epsilon, t, T(t) \& [S(a) \& [nak'(Tom')(a) \&_L wara'(Mary')(t)]])$
 $a_b = (\epsilon, s, S(s) \& [nak'(Tom')(s) \&_L wara'(Mary')(b)])$
 $a_t = (\epsilon, s, S(s) \& [nak'(Tom')(s) \&_L wara'(Mary')(t)])$
 $S = \lambda x. [x \subseteq R_1 \& R_1 < s_{NOW}]$ $T = \lambda y. [y \subseteq R_2 \& R_2 < s_{NOW}]$

The detail of this evaluation process being unimportant, the essence is twofold. First, there are two situation terms ‘ a_b ’ and ‘ b .’ (‘ a_t ’ is just part of ‘ b ’ and is not a full-fledged term.) Second, each term reflects the full propositional content into the restrictor on a variable.

Now, *no* copies the situation term ‘ b ’ and pastes it in a new proposition. (Copying of ‘ a_b ’ makes no truth-conditional difference. Copying of *Tom'* or *Mary'* is also possible; this models the ‘head-internal relative’ reading, but this reading is blocked by the Relevancy Condition (Kuroda 1992).) Finally, the term ‘ b ’ becomes an argument of the matrix predicate *mi'*.

(9) $mi'(b)(Peter')(\epsilon, u, U(u))$ $b = \text{the situation term as defined in (8).}$

Recall that R_1 and R_2 in ‘ b ’ are saturated. First, R_1 and R_2 may denote **the same** time interval, say, *last_night'*. This models (2a). Second, R_1 and R_2 may denote **different** time intervals; for instance, R_1 denotes *last_night'* and R_2 denotes *today'*. This models (2b). In this way, the difference between (2a)-(2b) is traced back to different specifications of two Rs. Finally, the epsilon operator ϵ in ‘ b ’ models existential quantification, and (9) is also compatible with the reading (2a'). (If this is contextually licensed, the parser could use the operator ϵ_2 instead.)

3. CONCLUSION: The two types of *no*-nominalisation are reducible to **incremental** growth of **semantic** representation, with the bonus of accounting for the asymmetry (3) **uniformly**. The account is only based on the basic machinery in Cann et al. (2005) and Kempson et al. (2011).

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Resultative/Progressive *-te-i*:

The Ingressive Meaning of the Perfective Form and its Implications in Japanese

Backgrounds: A complex aspectual marker *-te-i* has been a long-standing problem in the literature of Japanese aspect. It has often been considered to mark progressive/imperfective aspect (like English *be -ing*). If so, its ‘peculiarity’ of having the resultative/perfective meaning with achievement verbs must be given some special treatment (e.g. Ping and Shirai 2000). Thus, *-te-i* does not correspond to *be -ing* in (1):

(1) Taro-ga Tokyo-ni tui-te-i-ru.

Taro-Nom Tokyo-at arrive-TE-I-Pres 'Taro has arrived at Tokyo.'

Recently, Nakatani (2013) (N) has made the opposite kind of claim that *-te* in *-te-i* is a past tense marker (showing that it is an allomorph of the past tense marker *-ta*). Given this, N argues that the *-te-i* construction means that the event denoted by the verb is over and that the stative verb *-i* denotes a state after the event. N proposes a rule in (2), which lists subtypes of the state:

(2) STRETCH (*e*) in a world *w* is an event *e'* in *w* such that $e < e'$ and *e'* is either (a), (b), (c), or (d)

where the choice is finalized by a higher, context-sensitive semantic mechanism:

- a. An actualization of the result of *e*
- b. The logical entailment of *e*
- c. A continued stage of *e*
- d. A pragmatic implication of *e* (p. 196)

N admits, however, that something extra is required to account for expressing the progressive meaning with accomplishment verbs. A continued stage of *e* is not available for accomplishment because it implies the completion of *e*. Thus, in N's analysis, (3) cannot be taken as progressive without some stipulation:

(3) Hanako-wa ima hakaseronbun-o kai-te-i-ru.

Hanako-Top now dissertation-Acc write-TE-I-Pres 'H. is writing her dissertation now.'

Proposal: I can give a simple sentence as additional evidence for the ‘*-te-as-past*’ analysis:

(4) Taro-wa kinoo Tokyo-ni tui-te-i-ru.

T.-Top yesterday T.-at arrive-TE-I-Pres 'Taro already arrived at Tokyo yesterday.'

In (4), the present tense marker *-ru* cooccurs with *kinoo* ‘yesterday,’ clearly the past tense modifier. With *-te* as past, however, it follows that *kinoo* properly modifies the time of arrival marked by *-te*.

Departing from N, however, I'd like to propose that aspectually, *-te* is not always perfective but can be ingressive, indicating the start of an event or that, following Comrie (1976: 19), *-te* is a perfective form but “can in fact be used to indicate the beginning of a situation (ingressive meaning)”. From this follow possible, but not impossible, meanings. For (instantaneous) achievement verbs as in (1), the initiation point of an event is identical with the endpoint: the moment it happens, it ends, so that only one reading is available in which the state that *-i* denotes has to be the state after the event. Two aspectual interpretations are available for (3) because *kai-te* can denote either starting or finishing of the writing event. With the perfective choice, *-i* indicates the state after the action is finished. With the ingressive choice, *-i* indicates the state in which the started action is on-going. It follows likewise that noninstantaneous achievements

like *toke-te-i* ‘melt/melting’ are ambiguous. The ingressive interpretation has traditionally been regarded as imperfective. Actually, I am claiming, Japanese opts for marking the start of the action to give the imperfective interpretation, based on the perfective form (plus the stative verb).

Implications: Our ‘-te-as-ingressive’ analysis has far-reaching implications for aspectual properties in Japanese and in general. **First**, consider a (polite) imperative form of Japanese that uses *-te*, such as *Hasit-te!* ‘Run!’ and *Kai-te!* ‘Write!’ To my knowledge, the morphological identity of the past *-te* and the imperative *-te* has not been taken into serious consideration in the literature. They appear to be semantically distinct because the unrealized event of the imperative is incompatible with the past tense/the perfective aspect. The relation turns out to be significant, however, given the ingressive aspect of *-te*. It can be naturally used to order the start of an event. **Second**, the analysis turns our attention to *-te*’s allomorphic variation *-ta*. When it is used with a verb of the change of the mental state, as in (5a), it is ingressive rather than completive in the sense that the knowing state starts. Comrie (1976) observes similar facts for stative verbs in Ancient Greek and Spanish. The ingressive meaning of the perfective form is more widespread in Japanese. It is available with an activity verb like *hasir-* ‘run,’ as in (5b).

- (5) a. Taro-ga sore-o sit-ta.
 T.-Nom it-Acc know-Past ‘Taro came to know it/learned it.’
 b. Ichi-rui-ranna-ga hasit-ta!
 first-base-runner-Nom run-Past ‘The runner at the first base started to run.’

I suggest that *-ta* can be ingressive even more generally. I conjecture that there are principled reasons when the ingressive reading is observed and when not. For example, it may be ‘weaker’ than the perfective meaning and thus overridden when both are possible as in accomplishment verbs. It arises when the perfective interpretation is impossible, for instance, when the perfective implication is cancelled by the subsequent conjunct (which is the typical context discussed in the literature):

- (6) Sono keki-wa tabe-ta-kedo mada ar-u.
 the cake-Top eat-Past-but yet exist-Pres ‘I ate the cake but some remains.’

The ingressive meaning is available even without such cancellation, as in (7):

- (7) Ah! keki(-o) tabe-ta! (Pointing to a person who started eating the cake)
 cake(-Acc) eat-Past ‘Ah! You just took a bite of/started eating the cake!’

This happens, it seems, when an accomplishment verb semantically shifts to an instantaneous achievement verb, which yields some change of state (from ‘not eating’ to ‘eating’ in (7)), just as in (5a).

For a **third** implication, the analysis makes a crosslinguistic suggestion that while aspectual properties are universally determined on the cognitive basis, specific ways of making various aspectual forms are language-specific, depending on the relevant morphemes available in each language. Differences of the used morphemes can lead to subtle differences like the one between *tui-te-i* (result only) and *arriving*.

References: Comrie. 1976. *Aspect*. CUP//Nakatani. 2013. *Predicate concatenation*. Kurosio Publishers//Ping&Shirai. 2000. *The acquisition of lexical and grammatical aspect*. Mouton de Gruyter.

Elliptical *değil* ‘not’ in Turkish

Synopsis In this paper, I investigate the structure of *değil* ‘not’ in Turkish, and argue that it is never used as constituent negation (CN) syntactically. It cannot be combined with just any constituent in syntax. Its distribution is more restricted in the sense that it attaches to a position lower than TP in the hierarchical structure. The sentences in which *değil* seems to attach to smaller constituents such as AP, DP or PP are analyzed as elliptical coordination (Goksel&Kerslake 2005). **Introduction** It has been suggested that among the two kinds of negative markers in Turkish, sentential negation (SN) is marked with the negative morpheme *-mA* on verbal items as in (1,a) while CN is marked with the negative particle *değil* as in (1,b) (Kornfilt 1997, McKenzie 2006)

- (1) a. Ali dün okul-a git-me-di-Ø-Ø.
Ali yesterday school_{DAT}. GO NEG. PST. Ø-COP.Ø-3SG. ‘Ali didn’t go to school yesterday’
b. Ali okul-a değil iş-e git-ti-Ø-Ø.
Ali school_{DAT}. NOT work_{DAT}. GOPST. Ø-COP. Ø-3SG. ‘Ali went not to school but to work.’
- Following Penka (2011), we argue that the terms SN and CN are problematic since they might refer to the syntactic position or wide vs. narrow scope of negation. The syntactic position of negation does not seem to be equal to the position in which the negation is interpreted in the semantic component (Keleşir 2011). Therefore, we deny CN in its syntactic sense, and propose that sentences like (1,b) are elliptical constructions serving an information structural purpose, namely, Contrast. **Distribution** The morphosyntactic distribution of *değil* suggests that it can never precede the copula as in (2,a) unless it is used as metatextual negation as in (2,a¹).¹ Also, there are certain TAM markers (i.e., the definite past -DI, the aorist -Ir/Ar, the modality markers -Abil and -mAlI, and the optative -(y)A)² that are incompatible with *değil* as in (3) (Taylan 1986).³

- (2) a. *Ali Dede yakışıklı-y-dı-Ø değil.
Ali grandfather handsome_{COP}. PST. Ø-3SG. NOT ‘It’s not the case that the grandfather Ali was handsome.’
a¹. Ali Dede yakışıklı-y-dı-Ø değil çirkin-Ø-di-Ø de-di-m.
Ali grandfather handsome_{COP}. PST. Ø-3SG. NOT ugly_{Ø-COP}. PST. Ø-3SG. say_{PST}. 1SG. ‘I said the grandfather Ali was ugly, not handsome.’
- (3) *Betül bisiklet-e bin -di/-er/-ebil/-meli/-e değil.
Betül bike_{DAT}. ride_{PST/AOR/ABIL/NES/OPT}. NOT

Değil also functions in the following contexts; the so-called CN as in (4,a), tag questions as in (4,b), and the ‘let alone’ construction as in (4,c). It is clear that the contexts given in (4) all express Contrast.

- (4) a. Şeker değil çikolata sev-er-Ø -im.
Candy NOT chocolate like_{AOR}. Ø-COP. 1SG. ‘I like not candy but chocolate.’
b. Evde-Ø-sin, değil mi?
Home_{LOC}. Ø-COP.3.SG. NOT Q ‘You are at home, aren’t you?’
c. Değil partiye gitmek, dışarı çıkmak bile istemiyorum.
NOT party_{DAT}. GOGER. outside GOGER. even want_{NEG.PRES-PROG}. 1SG. ‘Let alone going to the party, I don’t even want to go outside.’

Problem There is no detailed syntactic account of the CN *değil* in the literature. Based on the CN analyses on other languages (Klima 1964, Choi 2004) we argue against such an account for *değil* since the following properties of *değil*-marked sentences pose serious problems. If there is no contrastive pair, *değil* cannot attach to a syntactic constituent as in (5). Each member of the contrastive pair must “make the same kind of contribution to a common discourse topic”

¹ See Kornfilt (1996) for further discussion on the copula in Turkish.

² The definite past and the aorist are compatible with *değil* in double negation contexts in which a verbal item inflected with *-mA* takes *değil* (Taylan 1986).

³ We between *değil*’s peculiar morphosyntax and suspended affixation analysis presented in Kabak (2007).

(Repp (2009:83)'s Principle of Balanced Contrast) as in (6). *Değil* does not necessarily attach to any syntactic constituent as in (7). *Değil* constructions also exhibit connectivity effects. The Case on a *değil*-marked item has to match with that of its contrastive-correlate as in (8). And finally, both strict and sloppy identity readings are possible in *değil* constructions as in (9).

- (5) a. *Herkes değil gel-me-di-Ø-Ø.
Everyone NOT come_{NEG. PST. Ø-COP. Ø-3SG.} 'Not everybody came.'
b. *Sen-in gül-me-ni değil isti-yor-Ø-um.
You GEN. laugh_{GER. 3SG. NOT want_{PRES.PROG. Ø-COP. 1.SG.}} 'I want you not to laugh.'
- (6) *Ali yarın değil Muş'a gid-ecek-Ø-Ø. (cf, Ali yarın değil Salı günü Muş'a gidecek.)
Ali tomorrow NOT Muş_{DAT. GO_{FUT. Ø-COP. Ø-3.SG.}} '*Ali is going to Muş not tomorrow.' (cf, *Ali is going to Muş, not tomorrow but today*)
- (7) Kanuni Hürrem'-i değil İbrahim Paşa Mahidevran'-ı öldür-müş-Ø-Ø.
Kanuni Hürrem ACC. NOT İbrahim Pasha Mahidevran_{ACC. kill_{EVID. Ø-COP. Ø-3SG.}} '(They say) İbrahim Pasha killed Mahidevran, but Kanuni not Hürrem.'
- (8) a. *Aşçı kek-i değil salata yap-tı-Ø. (cf, Aşçı kek değil salata yaptı.)
The cook cake ACC. NOT salad make_{PST. Ø-3SG.} 'The cook made not the cake but a salad.' (cf, *The cook made not a cake but a salad.*)
b. *Betül sınıf değil kafe-ye git-ti-Ø.
Betül class NOT cafe_{DAT. go_{PST. Ø-3SG.}} 'Betül went to a cafe, not to a class.'
- (9) Ben değil Ali kendin-e kız-dı-Ø.
I NOT Ali self_{DAT. be-angry_{PST. Ø-3SG.}} **Sloppy identity:** Ben kendime kızmadım. Ali kendine kızdı. (*I am not angry at myself, he is angry at himself*). **Strict Identity:** Ben Ali'ye kızmadım. Ali kendine kızdı. (*I am not angry at Ali. He is angry at himself*)

Proposal The traditional CN *değil* functions as contrastive and/or corrective negation, coordinating (at least) two conjuncts. *Değil* attaches to a lower position than TP since it never precedes the copula which occupies the T head in Turkish (Kelepir 2001). The contrastive items in each conjunct move to a left-peripheral position to mark Contrast. We will show that this movement is island-immune as in (10). After this movement, PF deletes the shared/redundant material in the conjunct marked with *değil*. Evidence in favor of this analysis comes from the fact that distinct adverbial items can modify each conjunct as in (11), and certain sentential coordinators such as *ama* 'but' and *fakat* 'and yet' can directly follow *değil* as in (12), suggesting that we are dealing with more than one verb in the so-called CN *değil* contexts.

- (10) Kitap değil ben-im defter al-dığ-ım çocuk fakir-Ø-di-Ø. (CNPC)
Book NOT I_{GEN} notebook buy_{OBJ-RELAT. POSS-1SG. kid poor Ø-COP. PST. Ø-3SG} 'The kid for whom I bought a notebook not a book was poor.'
- (11) (Anne, ban-a bu bebeğ-i al!) San-a bebeğ-i değil haftaya şu araba-yı al-acağ-Ø-im.
(Mom, I_{DAT. this baby ACC. buy IMP.}) You_{ACC. baby_{ACC. NOT next week that car_{ACC. buy_{FUT. Ø-COP. 1SG.}}} '(Mom, buy this baby for me!) I will buy that car for you next week, but not this baby now.'}
- (12) Bu sistem halk-ı değil (ama/fakat) halk-ın düşman-lar-ın-ı destekli-yor-Ø-Ø.
This system people_{ACC. NOT (but/and yet) people_{GEN. enemy_{PLU.POSS.ACC. support_{PROG. Ø COP.Ø-3SG.}}} 'This system doesn't support the people, but the people's enemies.'}

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