A Selective History of the Scientific Evolution and Importance of Simplest Merge

Samuel D. Epstein   Hisatsugu Kitahara   T. Daniel Seely
University of Michigan   Keio University   Eastern Michigan University

This paper briefly and selectively explores the theory of human phrase structure generation and representation from Chomsky's (1965) *Aspects of the Theory of Syntax* (*Aspects*) to Chomsky's (2013) "Problems of Projection" (POP). Generally, our goal is to reveal the continuity of Chomsky's always central goal: explanation via simplification. Our primary focus concerns labeling, projection, and the evolution of Simplest Merge in the quest for third factor reduction of Universal Grammar (UG).

Our central more specific point is that Merge, in its simplest form, Merge (X, Y) → {X, Y}, as recently developed in POP, eliminates both the mother node (i.e. projection) of standard Phrase Structure (PS) rules and representations, as well as the empty symbol delta (i.e. Δ) postulated in *Aspects*, (and in Chomsky's (1993) "A Minimalist Program for Linguistic Theory" as a symbol generated internal to the application of Generalized Transformation). As a result, the POP system attains far greater depth of explanation, while, as Chomsky notes, concomitantly minimizing UG, thereby reducing the set of currently (and perhaps perennially) scientifically unanswerable questions regarding the evolution of UG.

To the best of our knowledge, Collins (2002) was the first within the generative tradition to propose that labels be eliminated from the representation of syntactic objects and thus that the output of Merge (X, Y) is {X, Y} and not {Z, {X, Y}} (see Chomsky (1995) who considers, but ultimately rejects the elimination of labels; see also Seely (2006) who argues that Collinsonian label absence is the automatic consequence of reducing Merge to its simplest form, thereby eliminating Merge's projection phase, which in turns eliminates syntactically represented labels). Now notice, under the POP system, Merge, formulated in the simplest form, does not encode a label. There is no labeled categorial node appearing "above" X and Y present in the proposed NS mental representation. The categorial status of the set {X, Y} is representationally unidentified. That is, projection (or labeling) is no longer stipulated in the system as a defining property of Merge. Eliminating linear order (until SM is reached) we create a set. The categorial status of this set is identified by minimal search, and at CI it then satisfies Full Interpretation (a bare output condition); a "higher node" or the "label" of an object formed by Merge is not represented in NS but is identified/computed by application of third factor minimal search — an (ideal) expectation under SMT.

This labeling-as-minimal-search analysis has many consequences (beyond those presented in POP itself), some of which are just beginning to be explored. Epstein, Kitahara, and Seely (2014), for example, argue that POP's account of obligatory exit from intermediate positions in A'-movement, as in *you think [CP who [John likes]* (cf. *who do you think John likes*), where the embedded CP fails to be labeled at CI if *who* remains there, carries over to A-movement as well. They argue, for A-movement, as in *seems [TP a man [to like John]]* (cf. *a man seems to like John*), the embedded TP fails to be labeled at CI if *a man* remains there. A host of technical mechanisms that have been proposed over the years to account for such A- and A'-movement 'obligatory departure' phenomena are eliminated in favor of the single, simple labeling analysis. Chomsky (2014) extends the labeling-as-minimal-search

analysis to the unification of the EPP and the ECP, reducing both to independently motivated properties of (third factor) labeling.

The 50 years since *Aspects* have brought many technical changes, but also ever deeper scientific insight into the human language faculty. Following Einstein's dictum that "…nature [of which the human language faculty is a part, SDE, HK, TDS] is the realization of the simplest conceivable mathematical ideas." the postulation of Simplest Merge, after 60 years of generative syntactic research is of monumental importance. What in *Aspects* were two separate subsystems: (i) construction specific, category specific, language(s) specific and UG specific PS rules, generating word order, constituency and projection and (ii) Transformations, accounting for 'displacement,' have now been reduced to a *single*, (maximally) *simple*, and necessary operation, namely, Merge (X, Y) $\rightarrow$ {X, Y}. This represents extraordinary progress in that the entire PS and Transformational components have been reduced to a single simple, linguistically unconstrained operation, rendering explanation of the radically simplified theory of UG, conceivable and perhaps tractable so that the evolutionary 'great leap forward' of humans roughly 75,000 years ago, might one day be explained. And what was (while perhaps descriptively adequate) syntax-internal (and ultimately stipulative) constraints on rule application or (non-explanatory) level-ordered filters, have now been arguably reduced in many cases to what are, by hypothesis, third factor laws of nature.

There have been many important discoveries since *Aspects*, and the current research program seems to us more intriguing and exciting than ever, particularly for those who are interested in scientific explanation via the (scientifically standard) postulation of abstract, formal and "simplest conceivable" theories.

Selected References

Chomsky, Noam. 1965. *Aspects of the Theory of Syntax,* MIT Press, Cambridge, MA.

Chomsky, Noam. 1993. "A Minimalist Program for Linguistic Theory," *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger,* ed. by Kenneth Hale and Samuel Jay Keyser, 1-52, MIT Press, Cambridge, MA. [Reprinted in *The Minimalist Program,* Noam Chomsky, 1995, 167-217, MIT Press, Cambridge, MA.]

Chomsky, Noam. 1995. *The Minimalist Program,* MIT Press, Cambridge, MA.

Chomsky, Noam. 2013. Problems of projection. *Lingua* 130, 33-49.

Chomsky, Noam. 2014. Problems of projection: Extensions. Unpublished manuscript, MIT.

Collins, Chris. 2002. Eliminating labels. In *Derivation and Explanation in the Minimalist Program,* ed. by Samuel D. Epstein and T. Daniel Seely, 42-64, Blackwell, Oxford.

Einstein, Albert. 1934. "On the Method of Theoretical Physics," delivered at Oxford, June 10, 1933. In *Ideas and Opinions*, NY, Bonanza Books (1954, 274).

Epstein, Samuel D., Hisatsugu Kitahara, and T. Daniel Seely. 2014. "Labeling by Minimal Search – Implications for Successive Cyclic A-movement," *Linguistic Inquiry* 45, 463-481.

Seely, T. Daniel. 2006. Merge, derivational c-command, and subcategorization in a label-free syntax. In *Minimalist Essays,* ed. by Cedric Boeckx, 182-217, John Benjamins, Amsterdam.

A Syntactic Analysis of Mental Property Adjectives and Its Implication for Pedagogical Grammar

Takahiro Honda

Kobe Women's University

Based on Stowell's (1991) analysis, this paper discusses the syntax of a class of adjectival predicates involving the attribution of mental properties (MPs) such as (1), and then points out a problem in the current classroom instruction:

(1) a. It was kind of John to help Mary.
     b. John was kind to help Mary.
     c. To help Mary was kind of John.

Stowell proposes a syntactic structure for (1), as in (2), where the MP adjective selects *John* as a sentient argument, and then the complex adjective *kind (of) John* selects the infinitive as an event argument.

(2)   [$_{CP}$ C [$_{TP}$ T … [$_{AP}$ [$_{A'}$ kind$_i$ [$_{AP}$ (of) John$_j$ t_i]] [$_{Event}$ PRO$_j$ to help Mary]]]]

He claims that the sentient argument can be raised to the subject position because an infinitive does not need to be Case-marked, hence the grammaticality of (1b). On the other hand, if the sentient argument is assigned genitive Case by the MP adjective, the event argument is raised to the subject position, as in (1c). Moreover, he assumes that (1a) is derived by means of extraposition.

Under Minimalism (Chomsky (2001 *et seq.*)), however, it is unclear why the event argument can agree with T and be raised to SPEC-T in (1c) if infinitives really do not require Case-marking.

In order to explain all the derivations in (1), Honda (to appear) proposes that the event argument in (2) can be either a CP or a DP where a phonetically null D selects a CP. In addition, I assume that CPs do not have any Case features or φ-features and thus cannot agree with T. Therefore, when the event argument is a CP, the matrix T can agree with the sentient argument, and (1b) is derived. This is because the event argument, which has no features to agree with T, does not intervene between the matrix T and the sentient argument. On the other hand, if the event argument is a DP, it agrees with the matrix T, since it is closer to the T than the sentient argument, which is licensed by the *of*-insertion rule, and (1c) is derived. (1a) is derived if not the DP but the D, which heads the event argument clause, agrees with the matrix T. Only the D is extracted and raised to SPEC-T in (1a). I assume here that the expletive *it* is the overt realization of a D-feature as the expletive *there* is (see Sabel (2000)).

As seen above, infinitives as well as sentient arguments can be the arguments of MP adjectives in English. In contrast, Japanese MP adjectives cannot select event arguments, as in (3).

(3) ?*[(Taroo-ga)   Hanako-o   tasukeru no]-ga   yasasikat-ta.
     [(Taro-Nom) Hanako-Acc help   Nominalizer]-Nom   kind-Past
     'It was kind (of Taro) to help Hanako.'

When we observe school grammar books in Japan, however, most of them do not mention this contrast. They only focus on the relation between MP adjectives and their sentient arguments and point out that the adjective in (1) is used to describe the properties of the human argument whereas the adjective in (4) is not.

(4)　It was important for John to help Mary.

Additionally, sentences like (1c), which clearly show the argumenthood of the infinitive, are rarely introduced.

Since most Japanese learners of English have little chance to develop their awareness of the idiosyncrasy of MP adjectives in English in the current classroom instruction, there is a strong possibility that they believe that English MP adjectives show exactly the same syntactic behavior as Japanese ones do.　Thus, I assume that the students are unlikely to realize the relation between MP adjectives and their event arguments, which prevents them from acquiring the syntax of MP adjective sentences correctly. This assumption is partly validated by the fact that we can find no examples like (1) in the *JEFLL* corpus (Tono (2007)), which is a collection of more than 10,000 Japanese secondary school students' English compositions, while a considerable number of sentences like (4) appear in the corpus.　We can also find sentences like (5) in the corpus, which indicates that the students know the adjectives *per se*.

(5)　John was kind.

Therefore, I claim that it is necessary to show the students ungrammatical sentences like (3) and make them realize that the argument structures of MP adjectives are different between English and Japanese so that they can use sentences like (1) in addition to sentences like (5).　Furthermore, the syntactic analysis here can give a more detailed explanation of the difference between (1) and (4) than the current pedagogical grammar can.

References

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

Honda, Takahiro (to appear) "Kyoji *It* to *That* Setsu ni tsuite (On the Expletive *It* and *That*-Clauses)," *Gengo no Shinso (The Deep/True Phase of Language: Essays Presented to Professor Yukio Oba on the Occasion of His Retirement form Osaka University)*, ed. by Sadayuki Okada, Eihosha, Tokyo.

Sabel, Joachim (2000) "Expletives as Features," *WCCFL* 19, 411–424.

Stowell, Timothy (1991) "The Alignment of Arguments in Adjective Phrases," *Perspectives on Phrase Structure: Heads and Licensing, Syntax and Semantics* 25, ed. by Suzan D. Rothstein, 105–135, Academic Press, San Diego.

Tono, Yukio (2007) *Nihonjin Chukosei Ichiman nin no Eigo Corpus "JEFLL Corpus"* (10,000 Japanese Junior and Senior High School Students' English Corpus "The JEFLL Corpus"), Shogakukan, Tokyo.

A Syntactic Analysis of *That*-Relative Clauses

Takashi Ikeda
Aichi Prefectural University
Graduate School of International Cultural Studies

This presentation will show that the antecedent of *that*-relative clauses moves to a specific area, i.e. Spec of FocusP in Rizzi's (1997) split-CP sysytem. The current analysis assumes that the antecedent of a *that*-relative clause moves up to Spec of CP from the base-generated position within the relative clause, which is called Promotion Analysis (Aoun and Li (2003)). However, by specifying the landing position of the antecedent in split-CP, my proposal makes it possible to explain why certain antecedent allow *that*-relatives only.

Aoun and Li (2003:97) represent the promotion analysis as follows:

(1) [$_{DP}$ D [$_{CP}$ NP/DP$_i$[C [$_{IP}$…t$_i$…]]]]

In order to support this proposal, Aoun and Li (2003:98) present empirical evidence. They are based on the distribution of idiom chunks and binding as follows:

(2) a. The careful track {that/ ϕ /*which} she's keeping of her expenses pleases me.

  b. The headway {that/ ϕ /*which}Mel made was impressive.

  c. The portrait of himself$_i$ {that/ ϕ /*which} John$_i$ painted is extremely flattering.

(2a) originally contains an idiom "keep track of" and (2b) "make headway". Therefore, idioms are generated inside the relative clauses. After that, their nouns are moved to the surface positions. (2c) shows that *portrait of himself* was moved from inside its relative clause because an anaphor *himself* has to be bound by its antecedent *John*. Regarding the antecedent of a *wh*-relative clause, it is base-generated outside the relative clause. Hence, the derivation of idiom chunk and the binding condition cannot be sufficed.

In a promotion analysis, the position of an antecedent is expected to occupy the spec of CP. According to Rizzi (1997) and Radford (2004), CP has more than one projection as follows:

(3) a. He had seen something truly evil－prisoners being ritually raped, tortured and mutilated. He prayed *that atrocities like those, never again would he witness.*

  b. [$_{ForceP}$ that [$_{TopP}$ atrocities like those [$_{Top}$ φ] [$_{FocP}$ never again] [$_{Focus}$ would] [$_{TP}$ he ~~would~~ ~~never again~~ witness ~~atrocities like those~~]]]]   Radford (2004: 326)

The italicized expression *that* indicates the declarative Force, *atrocities like those* occupies the initial position of the sentence to mark it as Topic, and a preposed negative expression *never again* is in the spec of FocusP.

Radford (2004) argues that the ungrammaticality of main clause questions such as (5) can be accounted for, employing two claims from Rizzi (1997) that a preposed interrogative *wh*-expression " end up in Spec of Foc in main questions" and "There can be … only one structural Focus position per clause". Examine the following sentences:

(5) a. *What never again will you do?

  b. *What will never again you do?   Radford (2004: 329)

If Radford's and Rizzi's claims are correct, the ungrammaticality of (5) mentioned above is attributed to the violation of the rule stated above. Both of (5a) and (5b) have an interrogative *wh*-expression which moves to the spec of FocusP. Thus, there is no room for another constituent.

The fact that there can be only one spec for Focus is significant when the position of the antecedent is examined. Examine the following sentences:

(6) a.　*This is the very book that only very rarely will students enjoy.

　　b.　* [ForceP [FocP [the very book] [only very rarely] [Focus will][TP students ~~will~~ enjoy ~~the very book only very rarely~~]]]

　　c.　This is the very book that students will enjoy only very rarely.

(7) a.　Syntax is the kind of subject [which only very rarely will students enjoy]

　　b.　[ForceP which$_i$[Force ϕ][FocP only very rarely] [Focus will][TP students ~~will~~ enjoy ~~only very rarely~~ t$_i$]]]　　　　　Radford (2004:327) ((7b) is slightly modified)

(6a) is an inversed sentence of (6c). According to the present analysis, it is ungrammatical because in (6a) both *the very book* and *only very rarely* occupy the spec of FocusP. As (3b) shows, negative expression occupies the spec of FocusP, and as (5) shows, there is only one spec for FocusP. This causes ungrammaticality in (6a). On the other hand, in (6c), only *the very book* is in the spec of FocusP. In the case of a *wh*-relative clause in (7), the sentence is grammatically correct. It is because the antecedent is base-generated outside the relative clause, and the *wh*-operator *which* does not move into the spec of FocusP; there is no conflict in the spec of FocusP.

The same explanation can be applied to other types of antecedent which require only a *that*-relative clause.

(8) a.　*This is the most difficult book that only very rarely would I read.

(9) a.　*These are all of the books that never again would I read.

Both the antecedent of the superlative in (8) and the universal quantifier in (9) designate the comparison with other entities. Hence, the antecedent is assumed to carry contrastive focus and is raised to the spec of FocusP.

[Selected References] Aoun, Joseph and Yen-Hui, A, Li (2003) *Essays on the representational and derivational nature of Grammar*: *The diversity of WH-Construction*, MIT Press, Cambridge, Massachusetts. Kiss, É. Katalin (1998) "Identificational Focus versus Information Focus" *Language* 74, 245-273. Radford, Andrew (2004) *Minimalist Syntax: Exploring the Structure of English*, Cambridge University Press, Cambridge. Rizzi, Luigi (1997) "The Fine Structure of the Left periphery," in L. Haegeman (ed.) *Elements of Grammar*, Kluwer Academic Publishers, Dordrecht, 281-337.

Sluicing with Coordinated Remnants

Hiroko Kimura   **Hiroki Narita**

Nihon Institute of Medical Science   **Nihon University**

1. Introduction

Various studies have been proposed for "single sluicing" (SS) (1) and "multiple sluicing" (MS) (2). This study investigates another, less studied case exemplified by (3), which we will refer to "coordinated sluicing*"* (CS).

(1)   He is writing something, but you can't imagine what.   (Ross (1969)) (SS)

(2) ? Someone talked about something, but I forgot [who] [about what].   (MS)

(3)   Someone talked about something, but I forgot [who] and [about what].   (CS)

2. CS involves Elided Clausal Structure

We will first present several arguments for the view that CS involves ellipsis of TP/IP, which means that CS is a sub-type of sluicing. Among others, one argument comes from selectional restrictions on *wonder*; it selects only interrogative CP as shown in (4)-(5) (cf. Ross (1969)). With this in mind, let us consider (6), where CS is the complement of the verb *wonder*.

(4) * Paul wonders [NP the time] and [NP the place].

(5)   Paul wonders [CP when he is supposed to meet Mary] and [CP where he should go].

(6)   Paul is supposed to meet Mary, but I wonder [when] and [where].   (CS)

(6) shows that CS should involve some clausal structure, part of which stays phonologically unrealized.

3. The Elided Structure of CS: Mono-clausal or Bi-clausal?

Having established that that CS involves elided clausal structures, we will then investigate the structure of the missing part in (3), comparing two possible analyses in (7) and (8).

(7)   … but I forgot [CP *who*$_i$ [TP … e_i …]] and [CP *about what*$_j$ [TP … e_j …]]   (bi-clausal)

(8)   … but I forgot [CP *who*$_i$ and *about what*$_j$ [TP … e_i … e_j …]]   (mono-clausal)

(7) illustrates a bi-clausal analysis, where the conjunction (*and*) combines two instances of SS. (8) illustrates a mono-clausal analysis, where both the remnant phrases (*who* and *about what*) are somehow related to the positions inside one and the same missing TP. Two possible sources can be provided for (8): the first possibility is that (8) is derived from MS exemplified in (2), followed by phonological insertion of a dummy *and*; the other possibility is that (8) is rather derived from the so-called "coordinated wh-question" exemplified by (9) (see Merchant (2007), Gribanova (2009), and Larson (2013) for discussion), followed by ellipsis of TP (or maybe C').

(9)   What and when did Ivy eat?

We will present empirical arguments for the bi-clausal structure approach in (7). One such argument comes from the acceptability of examples like (10).

(10) a.   Someone bought something yesterday, but I forgot who and what.   (CS)

       b.   Someone bought something yesterday, but I forgot what and who.   (CS)

In (10), the two remnant wh-phrases are both argument DPs, but it is known that neither MS nor coordinated wh-question can involve two DPs.

(11) a. * Who and what did (he) eat?

       b. * What and who ate?

(12) a.?* Someone saw something, but I can't remember who what.

       b. * Someone saw something, but I can't remember what who.

Given this restriction, the acceptability of (10) is surprising to the mono-clausal approach. In the bi-clausal approach, by contrast, there is no wonder why CS does allow two argument wh-remnants, because they are derived from SS independently of each other.

4. Further Issues

We showed that CS is coordination of two instances of SS. In this section, we will proceed to consider a couple of differences between CS and SS. Among others, we will point out that there are cases of CS in which deletion of TP is obligatory, which is in significant contrast to the general optionality of deletion in SS, as shown in (13).

(13) He is writing something, but you can't imagine what (he is writing).

(14) a.   Someone bought something, but I forgot who and what.

       b.   Someone bought something, but I forgot who and what he bought.

       c. * Someone bought something, but I forgot who bought {it/something} and what.

(14) shows that TP-ellipsis is optional in the second conjunct but obligatory in the first conjunct. We will argue that the asymmetry can be attributed to the way in which the clausal antecedent is chosen for each instance of sluicing. We will provide this and several other observations on the difference between CS and SS, arguing that the study of CS yields a set of novel insights into the nature of coordination, as well as the way in which linguistic computation evaluates the parallelism between the antecedent clause and the sluiced clause.

Selected References: Ross, J (1969) "Guess Who?" *CLS 5*, 252-286. Gribanova, V (2009) "Structural Adjacency and the Typology of Interrogative." *Linguistic Inquiry* 40. Larson, B (2013) "Varieties of Coordinated Questions in Twi." 44th Annual Conference on African Linguistics. ACAL. Georgetown University. Washington, DC. Merchant, J (2007) Spurious coordination in Vlach multiple wh-fronting. MALC Handout.

The Repetitive Coordinator-*ka* and the Syntax of Alternative Questions in Japanese

Ryoichiro Kobayashi (ryoichiro.k@sophia.jp)

Graduate School of Languages and Linguistics, Sophia University

This study investigates the clausal disjunction (DJ) in Japanese and English, and aims to propose a unified account of the theory of DJ (Kobayashi forthcoming) and the syntax of alternative questions (Alt-Q) in Japanese. Since Larson (1985), it has been observed that the distribution of *either* is taken to mirror the scopal properties of DJ (Schwarz 1999). When *either* is adjacent to nominals (1a), the interpretation is ambiguous between Narrow/Wide Scope readings (NSR/WSR), while the scope is explicitly marked as WSR when *either* is displaced (1b), in which *deletion* takes place.

(1)   a.(NSR/WSR): Mary is looking for **either** [[a maid] or [a cook]].

      b.(WSR-*only*): Mary is **either** [looking for [a maid]] or [~~looking for~~ [a cook]].

Although the **_R(epetitive)C(oordinator)-ka_** in Japanese has been assumed to be optional (Kishimoto 2013), I argue that **RC-*ka*** functions as an overt scope-indicator in disjunction, in parallel with *either*.

Previous studies concluded that sentences like (2a) cannot have WSR *Clausal-Connective readings* (2c) since the structure before *deletion* (2b) is ungrammatical (cf. Miyama 2014).

(2)   a. Taro-ga   [ringo   ka   mikan   ***ka***]-o   kat-ta

         T.-nom   apple   DJ   orange   **RC-*ka*-**acc   buy-past

      b. *Taro-ga [ringo-o kat-ta]   ka   [mikan   ***ka*-**o   kat-ta]

      c. [Taro-ga [ringo(-o kat-ta)]] ka [(Taroo-ga)[mikan-o kat-ta]]   (***ka***   da)

         'Taro either bought an apple or an orange.'   **RC-*ka***   cop

Following Kuroda's (1965) insight, I argue that sentences like (2a) are derived from clausal DJ (2c) when they obtain WSR, through **_deletion + PF-reanalysis_** (3) (Fukui and Sakai 2003). After **deletion**, string-adjacent *ringo-ka-mikan* are **reanalyzed** as a nominal PF-constituent through *Morphological Merger* (Halle and Marantz 1993). The case assignment pattern (3b) further supports the PF-reanalysis account since case particles can only be assigned to nominal elements (Kuroda 1978 inter alia).

(3)   a. Narrow Syntax: [Taro   [$_{vP}$ ringo ~~kat-ta~~]   ka   [$_{vP}$ mikan   kat-ta]].

      →b. Phonology: [Taro-***ga*** [[$_{NP}$ ringo]   ka   [$_{NP}$ mikan (***ka***)]]-***o***   kat-ta].

When **RC-*ka*** is stressed and immediately followed by deaccenting (**RC-*KA***) (Watanabe 2000), DJ obligatorily obtains **_exclusive-or_ interpretations**. I propose that this is due to WSR of the underlying clausal DJ. The prediction is borne out that TP-adverbs, *kyoo/kinoo* 'today/yesterday' are licensed only when **RC-*KA*** is present (4) or when sentences obtain WSR in clausal DJ.

(4)   a.*Taro-ga [*kyoo* ringo   ka   *kinoo*   mikan   *ka*]-dochiraka-o   kat-ta

      b. Taro-ga [*kyoo* ringo   ka   *kinoo*   mikan   ***KA***]-o   kat-ta

         T.-nom today apple   DJ   yesterday orange   **RC-*KA*-**acc   buy-past

Following Miyama's (2014) observation that nominal DJ are always base-generated when *dochiraka*

'which-*ka*' is present, I propose that **RC-*ka*** functions in parallel with *either*, as in (5).

Scope of DJ	English	Japanese
Ambiguous	adjacent to nominal DJ (*either* [A *or* B]) (1a)	adjacent to nominal DJ ([A *ka* B] **RC-*ka***) (2a)
NSR	base-generated nominal DJ	base-generated nominal DJ (+*dochiraka*)
WSR	clausal DJ & displaced *either* (1b)	RC-KA (4)/clausal DJ & displaced RC-*ka* (2c)

(5)

These speculations on **RC-*ka*** enable us to take a fresh look at Japanese ***Alt-Qs***. In English, it has been observed that Alt-Qs become available when <u>*whether*</u> (overt)/<u>*Q*</u> (covert) <u>operators</u> move to [Spec, C] (6), which is subject to the island constraints. Uegaki (2014) argues, however, that Japanese Alt-Qs are always disjoined ***Pol(arity) Q(uestion)s*** with **ka/no** 'Q' (8), since (7) cannot have Alt-Q readings.

(6) (*Q/whether*)$_i$ Did t_i [[John eat beans] or [~~John eat~~ rice]]? (Han and Romero 2004:530)

(7) Taro-ga [koohii ka ocha]-o non-da-ka/no?

T.-nom coffee DJ tea-acc drink-past-Q (*Alt-Q;^{OK}Pol-Q)

(8) [$_{Pol-Q}$Taro-ga koohii-o non-da-**ka^Q/no^Q**](soretomo) [$_{Pol-Q}$(T.-ga) ocha-o non-da-**ka^Q/no^Q**]?

^{OK}Alt-Q:'[$_{Pol-Q}$ Did Taro drink coffee] or [$_{Pol-Q}$ (did he drink) tea]?' (Uegaki 2014:52)

I propose that Alt-Qs in Japanese can also be derived in a similar manner as in English (6): They become more prominent with **RCs** (9) since Alt-Qs are obligatorily clausal/WSR (Han and Romero 2004:538).

(9) a.Taro-wa [[koohii ka ocha **RC-*ka*/*KA***](-o) non]-da-no? (^{OK}Alt-Q;^{OK}Pol-Q)

b.Taro-wa [$_{TP}$[koohii (-o non-da)] ka [ocha-o non-da] **RC-*ka***]]-(desu)-ka?($^?$Alt-Q;^{OK}Pol-Q)

I argue that they are also sensitive to island constraints ($^{*Alt-Q}$ *Taro-wa [$_{CP}$[Hanako ka Masako KA]-ga ki-ta kadooka] sittei-ru-no?*), and they are also subject to *the Focus Intonation Pattern* (Ishihara 2002).

(10) a. Taro-wa [[Hanako ka Masako ↑ KA ↓]-ga ki-ta ↑ ka] sittei-ru(-no)? (*Alt-Q;^{OK}Pol-Q)

b. Taro-wa [[Hanako ka Masako ↑ KA ↓]-ga ki-ta ka] sittei-ru ↑ **(-no)**? (^{OK}Alt-Q;$^?$Pol-Q)

$^{Pol-Q}$:'Does T. know whether H. or M. came?'/$^{Alt-Q}$:'Which person, H. or M., does T. know came?'

Another point to consider is a *Weak Presupposition* (*for p/¬p*), which makes Alt-Qs more prominent (van Rooy and Šafářová 2003). Those who reject (9) may accept that they allow Alt-Qs, given (11).

(11) *e.g.* "One of the speaker's friends, *Taro*, either <u>*had coffee*</u> (*p*) or <u>*had tea*</u> (¬*p*), but he/she does not know which. He/she asks another friend, (9)..."

Given these observations, I argue for <u>(12)</u> ***A Unified Analysis for Disjunctions***:

a. WSR DJ are always derived from clausal DJ through ***Deletion*** (English) / ***Deletion+ PF-reanalysis*** (Japanese), where **RC-*ka*/*either*** function as overt scope-indicators (5).

b. **Clausal-DJ/RC-*KA*** function in parallel with **displaced-*either*** (4) (C$_{[-Q]}$), while they also serve as ***whether/Q-operators***, obtaining Alt-Qs in interrogatives (9) (C$_{[+Q]}$).

Given (12), we can capture the scopal properties (WSR/NSR) of DJ in English/Japanese only with <u>***Merge-based Syntax*** + ***PF-deletion***</u>, which contributes to the simplification of UG.

[Selected References] Larson, R. K. (1985). On the syntax of disjunction scope. NLLT, 3(2), 217-264. | Schwarz, B. (1999). On the syntax of *either...or*. NLLT,17(2). | Uegaki, W. (2014). Japanese alternative questions are disjunctions of polar questions. *Proceedings of SALT,*24.

Cross-Linguistic Variations in Realization Patterns of Speech Act:
A Competition-Theoretic Approach

Kazuya Nishimaki (University of Tsukuba)

1. Realization Patterns of Speech Act   In (1), *I tell you* guarantees that the speaker performs a speech act of conveying to the addressee the information that someone is an idiot.

(1)   <u>I tell you</u>, he is an idiot.   (Stubbs (1983: 157))

Hirose (1995: 227) points out that *I tell you* roughly corresponds to the particle *yo* in Japanese, as the following translation pair shows:

(2)   Ame da <u>yo</u>. 'It is raining, <u>I tell you</u>.'

Yo is an uninflected bound morpheme that occurs sentence-finally, marking a clausal type, e.g. a declarative. Henceforth, we call a particle like *yo* a sentence-final particle (SFP).   The correspondence in (2) means that English and Japanese realize the same speech act by different forms; *I tell you* takes a phrasal form, whereas *yo* is a morphological realization using a bound morpheme.   Note another difference between these two expressions.   A cartographic approach to clausal structures has revealed that CP has a Force (or Speech Act) projection whose head encodes illocutionary force.   Rizzi (1997: 283) states that speech act may be encoded at either its specifier or head.   Extending Rizzi's analysis of the topic-focus system in English, we may assume that *I tell you* occurs at the specifier to be licensed by agreeing with the null head.   On the other hand, according to Tenny (2006: 256), the SFP *yo* heads a Force projection.   The above observation shows that the differences in question involve the distinction between two grammatical modules: morphology and syntax. To treat cross-linguistic variations and inter-modular issues in a parallel fashion, Ackema and Neeleman (2004) develop Competition Theory.   Adopting this theory, we aim to give a unified account of the relevant differences, which have been separately discussed in the literature.   We do not assume that they reflect some semanticopragmatic difference between the phrase *I tell you* and the SFP *yo*.   Instead, our claim is that they reflect a macroparametric distinction between English and Japanese.

2. Competition Theory   Assuming that morphology and syntax are in a competing relationship, Competition Theory hypothesizes that languages are classified into two types according to whether syntactic phrases or morphological words are preferred in phonological realization of morphosyntactic structures.   For example, English, using a phrasal causative (e.g. *to make John eat*), is a syntax-preferring language, while Japanese, using a compound form for a causative (e.g. *tabe-saseru* '(lit.) to eat-make'), is a morphology-preferring language.

3. Explanation   The observed differences naturally follow from Competition Theory.   English, a syntax-preferring language, utilizes phrasal options for realizing speech act.   We assume that an illocutionary morpheme like the SFP *yo* is absent from English, which temporarily uses syntactic phrases to encode illocutionary force; phrases like *I tell you* are reanalyzed into lexical units to occupy a Force specifier.   Since

they are not illocutionary markers, they are available for other purposes.   For example, *I tell you* can function as an intensifier, as Bolinger (1972: 93) observes.   In contrast, Japanese, a morphology-preferring language, selects a morphological realization with special illocutionary markers, which are listed in the lexicon as such.

The syntax-preference enables English to encode illocutionary force by various syntactic options. Compare the English wh-question in (3a) with the Japanese counterpart in (3b).

(3) a.   What did Mary buy?

b.   Mary-ga   nani-o   kai-masi-ta   ka.

   M.-Nom   what-Acc   buy-polite-past   Q   (Hasegawa (2005: 49))

According to Hasegawa (2005), English uses wh-movement to encode interrogative force, which Japanese marks with the interrogative morpheme *ka*.   Thus, Competition Theory can nicely capture the correspondence between English syntactic options and Japanese SFPs.

Interestingly, there is another CP domain where a functional projection is realized syntactically in English and morphologically in Japanese.   Based on Cinque (1999), Tenny (2006) proposes that CP hosts an Evidentiality projection, which encodes a source of an utterance.   English employs syntactic strategies for evidentiality and not evidential markers:

(4) a.   I hear Mary won the prize.   b.   Ernie looks like he's sick.

Anderson (1986: 276) states that the phrase *I hear* in (4a) expresses an evidentiality of hearsay when *hear* is unstressed.   Winans et al. (2014) observe that the copy-raising in (4b) requires the speaker to have perceived Ernie directly.   In contrast to English, Japanese morphologically realizes evidentiality with a bound SFP:

(5) Kazi   da   na.

   fire   Cop.Pre   seem

   'It seems that a fire is occurring.'

According to Endo (2010: 81), the SFP *na* in (5) guarantees that the utterance is based on the speaker's indirect perception, e.g. hearing the siren of a fire engine.

The present analysis suggests that realization patterns of functional projections in CP domains differ between syntax-preferring and morphology-preferring languages; in the former, functional projections are realized by temporarily-derived elements at specifiers, whereas in the latter they have realizations with special morphemes at heads.

Selected References: Ackema, P. and A. Neeleman (2004) *Beyond Morphology*, Oxford University Press. /Hasegawa, N. (2005) "The EPP Materialized First, Agree Later," *Scientific Approaches to Language* 4, 33-80, Kanda University of International Studies. /Hirose, Y. (1995) "Direct and Indirect Speech as Quotations of Public and Private Expression," *Lingua* 95, 223-238. /Rizzi, L (1997) "The Fine Structure of the Left Periphery," *Elements of Grammar*, ed. by L. Haegeman, 281-331, Kluwer Academic Publishers. /Tenny, C. (2006) 'Evidentiality, Experiencers, and the Syntax of Sentience in Japanese,' *Journal of East Asian Linguistics* 15, 245-288. /Winans, L. et al. (2014) *Children's Comprehension of Syntactically Encoded Evidentiality*, paper presented at NELS 45.

A Distributed Morphology Approach to Genitive Compounds in Frisian
Tatsuhiro Okubo
University of Tsukuba

1. Introduction

Frisian has two types of N(oun)N(oun) compounds: one is ordinary NN compounds and the other is genitive compounds. These two types are shown in (1) and (2), respectively (Hoekstra (2002: 228)).

(1) a. kening-s-dochter lit. king-s-daughter 'king's daughter'

b. bern-e-boek lit. child-e-book 'children's book'

(2) a. koken-s-flier lit. kitchen-s-floor 'floor of the kitchen'

b. lodd-e-fiem lit. shovel-e-handle 'handle of the shovel'

The two types appear to be the same because both consist of two Ns and link morphemes *-s* and *-e*. However, they are different in meaning. Hoekstra (2002: 232-235) points out that two Ns in NN compounds show various relations including a part-whole relation, while those in genitive compounds in (2) show only a part-whole relation. Hoekstra hence ascribes the semantic difference to the difference in nature between link morphemes in (1) and (2). Link morphemes in (2) are genitive morphemes, while those in (1) are not. In addition, Hoekstra distinguishes the genitive morphemes from possessive morphemes, showing that the latter ones only occur with proper names and kinship terms (e.g. Fryslân-s marren 'Frisia's lakes,' mem-s/memm-e eagen 'mother's eyes')

Although the morphemes in (1) and (2) are different, the reason why their forms are the same is unclear. In this presentation, I aim to explain the semantic difference between the two types of compounds and the fact that the morphemes in (1) and (2) are formally identical.

2. Expletives in Words

It has been said that some compounds consist of two words and a meaningless element that links them. This element is called a linking element (LE):

(3) a. English: parks department, children's hour, frontiersman   (Lieber (2009: 369))

b. French: moulin à vent lit. mill-LE-wind 'wind mill'   (Ralli (2008: 25))

Lieber (2009: 369) notes that the elements of the first constituents in (3a) like *-s* and *-'s* do not carry grammatical meanings like a plural or a possessive meaning, although their forms are identical to plural or possessive inflection. In addition, forms of LEs are varied. For example, in French, the preposition *à* 'in, to' functions as an LE, as shown in (3b).

Given that LEs are meaningless and their forms are diverse, Okubo (2014) views LEs as expletives, based on the framework of Distributed Morphology (Embick and Marantz (2008)). According to Okubo, *parks department* in (3a) has the following structure:

(4) a. parks department

b. [[[√PARK *n*, -Ø] *f*, -s] [√DEPARTMENT *n*, -Ø]]

In (4b), *park* is combined with an EPP-like feature *f* that is later realized as the LE *-s*. Given X^0 status of compounds, Okubo argues that checking off of the feature by an LE validates the X^0 status of the entire construction.

3. Proposal

Based on Okubo's proposal, with respect to Frisian NN compounds, I suggest the following structure:

(5)   a.   kening-s-dochter (= (1a))

       b.   [[[√KENING n] f, -s] [√DOCHTER n]]

The structure consists of *kening* and *dochter*. The former N is combined with f, which is checked off by *-s*. As a result of this checking, the whole expression *keningsdochter* is validated as a compound. The structure in (5b) has no elements other than the two Ns and *-s*, so that relations between the two Ns are varied. For example, the English NN compound *water mill* can be interpreted in various ways, such as 'mill powered by water,' 'mill producing water,' and 'mill located near the water.' Moreover, Downing (1977: 828) displays at least 12 relationships (e.g. time, purpose, source, etc.) found in English NN compounds.

In contrast to Frisian NN compounds, Frisian genitive compounds show only a part-whole relation. This fact means that *-s* or *-e* in the compounds are not LEs and then, they are not realizations of f. Alternatively, I suggest that the morphemes become a part of stems (cf. Shimada, Nagano, and Okubo (to appear)). This is corroborated by the fact that the prenominal genitive construction existed in Old Frisian and some of it could develop into genitive compounds (Hoekstra (2002: 244)). With respect to the part-whole relation, I propose that the part-whole relation is possible because Frisian genitive compounds have √PART proposed by Adger (2013), which ensures a part-whole relation, as shown in (6):

(6)   a.   lodde-fiem (= (2b))

       b.   [[√FIEM n] [[√LODD n] √PART]]

In (6b), the part-denoting functional head √PART selects the two Ns. The head establishes a part-whole relation between the two Ns. Due to its presence, the form of [√LODD n] becomes *lodde-*. If this is caused by √PART and genitive compounds must have the functional head, the non-heads of genitive compounds necessarily have forms ending in *-s* or *-e*. This prediction is borne out by the contrast in (7):

(7)   a.   kokenfaam, kokensâlt, kokenrêding… 'kitchen maid, kitchen salt, kitchen ware…'

       b.   kokensdoar, kokensflier, kokensfinster… 'door, floor, window…of the kitchen'

As in (7a), *koken* does not take an LE in NN compounds. However, if it is used in genitive compounds, it must take a form ending in *-s*.

References

Adger, D. (2013) *A Syntax of Substance*, MIT Press, Cambridge, MA. / Arad, M. (2003) "Locality Constraints on the Interpretation of Roots: The Case of Hebrew Denominal Verbs," *NLLT* 21, 737-778. / Downing, P. (1977) "On the Creation and Use of English Compound Nouns," *Language* 53, 810-842. / Embick, D. and A. Marantz (2008) "Architecture and Blocking," *LI* 39, 1-53. / Hoekstra, J. "Genitive Compounds in Frisian as Lexical Phrases," *JCGL* 6, 227-259. / Lieber, R. (2009) "IE, Germanic: English" *The Oxford Handbook of Compounding*, ed. by R. Lieber and P. Štekauer, 357–369, Oxford University Press, Oxford. / Okubo, T. (2014) "Expletives in Words: Linking Elements as Markers of Wordhood," *Lingvisticae Investigationes* 37, 225-239. / Ralli, A. (2008) "Compound Markers and Parametric Variation," *STUF* 61, 19–38. / Shimada, M., A. Nagano, and T. Okubo (to appear) "Priscianic Formation in Compounding and the Stem-Formation Process of Upgrading," *Language Sciences*.

Skepticism on Control in Japanese
Koji Shimamura—University of Connecticut, Storrs/Mie University.

Synopsis: I argue that the *prima facie* cases of Obligatory Control in Japanese in (1) are not Control at all, contra Nemoto (1993) and Fujii (2006, 2010) among others. Instead, I propose that they are derived by embedding the bouletic modal (i.e. -(*y*)*oo*) whose attitude holder must be construed as the first person (i.e. speaker in a given context—α_c) and shifting it in accordance with the context of the matrix subject under the so-called monster operator (Schlenker 2003, Sudo 2012, Sauerland and Yatsushiro 2014; *pace* Kaplan 1977/1989).

The Semantics and Syntax of the Modal -(*y*)*oo*: In the matrix clauses, -(*y*)*oo* functions as a modal that expresses volition, and its attitude holder must be the first person—either singular or plural as in (2a) or (2b) (Narrog 2009). In the literature, (2b) must be used with the presence of the addressee h_c, so 'we' there is inclusive; however, if an appropriate context is provided, we can also understand 'we' as the set of the speaker and some non-speech act participant (non-SAP). Thus, (2b) can be a soliloquy—exclusive 'we'. But the common denominator of the examples in (2) is that the volitional attitude (let's say "bouletic") must be ascribed to α_c. I thus propose (3) for the structure and (4) for the semantics of -(*y*)*oo*, where -(*y*)*oo* takes the set of contexts $< k, t >$ and introduces a new context as triplet $<\alpha_{g(i_k)},$ $h_{g(i_k)}, w'>$. Crucially, the agent in Spec-*v*P can be independently merged, so that contrary to the literature, we can have some non-SAP as the agent while keeping α_c the attitude holder as in (5). The source of α_c as the attitude holder is the lexical property of -(*y*)*oo*, expressed here as $[\![yoo_I \ i_k]\!]^{c,g}$. Therefore, the denotation of (2a) is, for instance, (6), where c signifies the context of actual utterance by default (Sudo 2012). For (2b) with some non-SAP or the addressee, I simply assume that a pluralizer, -*tati*, is attached to the agent.

Deriving Control-like Cases: Following Sauerland and Yatsushiro (2014), I propose that there is a monster operator that is materialized as the reporting marker '*to*'—the head of RepP (Report Phrase) and it only scopes over what is incorporated into it as in (7a), which only depicts the result of the head movement by the modal head into Rep^0. The job of Rep^0 is then to take the context pronoun of 7_k (let's assume that every constituent has a context pronoun), and replace the parameter c of $[\![.]\!]$ for the modal with the value 7_k with respect to g as shown in (7b) (Sudo 2012). Then, (1a), for instance, will be syntactically analyzed as (8), where the embedded agent is *pro* that is coreferential with the matrix *Eri*, and it will be interpreted as in (9). Importantly, only α_c of -(*y*)*oo* is shifted under the context of *Eri*, i.e. $g(14)$, but all the other materials will be interpreted relative to c. For (1b), I assume that covert -*tati* as an associate morpheme (Madigan 2008) is attached to *pro*.

Consequences: One consequence: Note that the self-ascription by -(*y*)*oo* is concerned only with α_c as the attitude holder and the embedded agent is just *pro*, so that we predict that *de se* reading does not have to hold only in the Control-like cases. This state of affairs is in stark contrast with what Fujii (2006) observes. However, a careful choice of contexts allows non-*de se* reading. One such case is (10) with the following scenario: Taro will run for an election. One day, he was completely drunken and watching someone giving a very good speech for the election. Sympathized with the person on TV, Taro yelled out to TV, "Do (your) best for the election." Unbeknownst to him, the person on TV was in fact Taro himself. NB, the relevant construal allows long-distance *wh*-dependency as shown in (11), so that the embedded clause is indirectly quoted.

(1)   *Prima facie Subject Control*

    a.   *Eri-wa* [*keeki-o*   *tabe-yoo-to*]   *kime-ta.*
        Eri-TOP cake-ACC   eat-MOD-REP(ORT) decide-PST
        'Eri decided to eat a cake.'

    Prima facie Split Control

    b.   *Eri-wa*   *Aoi-ni*   [*ie-ni*   *kaer-oo-to*]   *it-ta.*
        Eri-TOP Aoi-DAT home-DAT return-MOD-REP say-PST
        'Eri told Aoi that they should go home.'

(2)   a.   *Boku-wa* *ie-ni*   *kaer-oo.*
        I-TOP   home-DAT return-MOD
        'I will go home.'

    b.   *Boku-tati-wa* *gakkoo-ni*   *ik-oo.*
        I-PL-TOP   school-DAT   go-MOD
        'We will go to school.'

(3)   [$_{ModP}$ [$_{vP}$ AGT [$_{VP}$ OBJ V] v] yoo]

(4) $[\![yoo_I\ i_k]\!]^{c,g} = \lambda p_{<k,t>}$. for all worlds w' that comply with what $\alpha_{g(i_k)}$ desires in $w_{g(i_k)}$,
            $p(<\alpha_{g(i_k)},\ h_{g(i_k)},\ w'>) = 1$

(5)   CONTEXT: I'm going to make my wife make tea for you:

        Ima,   *tuma-ga*   *otya-o*   *ire-mas-yoo.*
        now   wife-NOM tea-ACC put-POL-MOD
        'My wife shall make tea (for you) soon (under my decision/authority).'

(6) $[\![(2a)]\!]^{c,g} = 1$ in c iff for all worlds w' that comply with what α_c desires in w_c,
        α_c goes home in w'

(7)   a.

                   Rep^0
                    ⟋⟍
          Mod^0 *to* (Rep^0 = Op)
          ⟋⟍
       yoo$_I$ 7_k
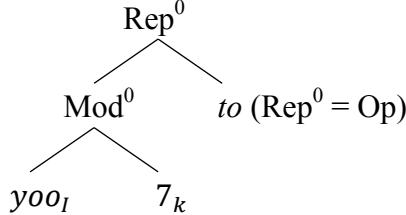
    b. $[\![Rep^0]\!]^{c,g} = [\![yoo\ 7_k\ to]\!]^{c,g} = [\![yoo\ 7_k]\!]^{g(7_k),g}$

(8)   [$_{vP\ (Matrix)}$ *Eri$_1$* [$_{VP}$ [$_{RepP}$ [$_{ModP}$ [$_{vP}$ *pro$_1$* [$_{VP}$ *cake eat*]-v]-*yoo*]-REP] *decide*]-v]

(9) $[\![(1a)]\!]^{c,g} = 1$ in c iff for all contexts $c' \in DOX_{Eri,g(14_k)}$,
        for all worlds w' that comply with what *Eri* desires in $w_{c'}$,
        Eri eats cake in w'

(10)   (*Dare-to-wa kizukazu*)   *Taroo$_1$-wa* [$_{RepP}$ *pro$_1$* *ganbar-oo-to*]   *it-ta.*
      (who-REP-TOP notice.NEG) Taro-TOP   do.his.best-MOD-REP say-PAST
      Lit. 'Taro$_1$ said e_1 to do his best.'

(11)   (*Dare-to-wa kizuk-azu*)   *Taroo$_1$-wa* [$_{RepP}$ *pro$_1$*   *dono*   *senkyo-de*
      (who-REP-TOP notice.NEG) Taro-TOP   which   election-in
      ganbar-oo-to] *it-ta-no.*
      do.his.best-MOD-REP say-PAST-Q
      Lit. 'Which election did Taro$_1$ say e_1 to do his best for?

References (selected) Sudo, Y. 2012. *On the semantics of phi features on pronouns.* PhD thesis, MIT.

The Lack of Head Movement in Ellipsis Constructions
under E-feature Movement

Takaki Rumi
Kyushu University

This research presents a unified mechanism of one of the striking phenomena concerning ellipsis, which has not been given a satisfactory account: the lack of head movement in ellipsis constructions. In English VP-ellipsis, an auxiliary remains as illustrated in (1).

(1) John likes apples, but Mary doesn't.

In sluicing, however, an auxiliary cannot remain even though in an interrogative full-fledged sentence T-to-C movement occurs.

(2) A:John has invited someone from his office.
    B: Really? Who (*has)?

If we assume that the head movement of T-to-C occurs and the complement of C is deleted, the auxiliary *has* should appear contrary to fact. Concerning this lack of head movement, Lasnik (2001) argues that if the matrix interrogative C contains the relevant strong feature and the matching feature of T moves to C to check it, the T head is phonologically defective and it causes a PF crash. The option to save that crash is either pied-piping or a deletion of a category including T. However, he does not offer any reason why the former option, pied-piping, cannot be chosen as for sluicing.

As an alternative, apparently, one could argue that, following the CP cartographic approach, the auxiliary moves to the Fin head and if we assume that the complement of the Foc is deleted, we could have the structure in (2). However, if we assume that, we cannot account for the following data in Hungarian.

(3) a. kivancsi vogyok, hogy   JÁNOS ment-e el
        curious I.am   COMP János   went-**Q** PV
        'I wonder if it was János who left'
    b. *kivancsi vogyok, hogy   JÁNOS-e ment el
        curious   I.am   COMP János-**Q** went PV

                                        (van Craenenbroeck and Lipták (2008: 140))

As shown in (3a), the finite verb has to bear an interrogative suffix -*e*, which is argued to be located in the left-peripheral focus domain by van Craenenbroeck and Lipták (2008). It shows that the verb raises to the head hosting the interrogative suffix. If the suffix attaches to some element other than the finite verb, the sentence becomes ungrammatical as illustrated in (3b).

However, when the deletion applies, it seems that the head movement is bled and the suffix attaches to the preverbal element as shown in (4).

(4) János meghívott egy lányt, de   nem tudom hogy ANNÁT *(-e)
    John   invited   a   girl but not I.know that Anna-**Q**
    'John invited a girl, but I don't know if it was Anna'

                                        (Merchant and van Craenenbroeck (2013: 720))

If we assume that the complement of the Foc head is deleted in (4), the Foc head should be

outside of the ellipsis site and the finite verb with -*e* should appear. Given that head movement actually occurs when the deletion does not happen, it is clear that the lack of head movement is attributed to the deletion.

However, if we assume that the E-feature is originally located in the Foc head in (4), we cannot explain why the head movement is bled by ellipsis since nothing prevents the verb from undergoing the head movement. A similar case is illustrated in (5) as for Dutch. In this example, the verb *eet* raises out of the VP due to the V2-requirement. However, when deletion occurs, it becomes ungrammatical. Therefore, the head movement needs to be suppressed before the head start to move.

(5)*Jan eet   appels en   ik eet ook __
      John eats apples and I   eat also
      'John is eating apples and I am too'

<div align="right">(Merchant and van Craenenbroeck (2013: 717))</div>

In this approach, I propose that the E-feature first appears in a lowest phase based on the suggestion by Chomsky (2008) that a phase drives any operation, and it moves to the higher relevant head successively to check its uninterpretable focus feature. I call it E-feature movement. Further, we also assume when a head carries the E-feature once, it cannot undergo head movement since the head has to stay in situ to be a marker that shows its complement is deleted. As a result, only E-feature movement occurs.

Applying this mechanism, we also account for the reason why French, in which the head movement of V-to T is obligatory, does not have VP-ellipsis.

(6) *Claudine est une bonne étudiante, et Marie (*est) __ aussi
      'Claudine is a good student, and Mary is too'

In (6), in the elliptical clause, *est* cannot appear when deletion applies. In this example, since the lowest phase v has an E-feature, the head movement is suppressed and only E-feature moves finally to a higher head T and its complement is deleted. As a result, only the example without *est* becomes grammatical. On the other hand, since English does not have V-to-T movement in the first place, E-feature moves to a higher head T and the deletion of its complement occurs. Moreover, since English has an operation called *do*-support, VP-ellipsis in English is allowed.

Thus, we will show that our approach can successfully give a unified account for the data concerning the lack of head movement in elliptical constructions

<div align="center">Selected References</div>

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.

Craenenbroeck, Jeroen van and Anikó Lipták (2008) "On the Interaction between Verb Movement and Ellipsis: New Evidence from Hungarian," *Proceedings of the 26th West Coast Conference on Formal Linguistics*, 138-146.

Lasnik, Howard (2001) "A Note on the EPP," *Linguistic Inquiry* 32, 356-362.

Merchant, Jason and van Craenenbroeck (2013) "Ellipsis Phenomena," *The Cambridge Handbook of Generative Syntax*, ed. by Marcel den Dikken, 701-745, Cambridge University Press, Cambridge.

On the English Dative Alternation: Arguing for the Multiple Meaning Approach

Shiro Takeuchi
University of Tsukuba

It has long been debated whether or not the double object variant, as exemplified in (1a), and the *to* variant, as in (1b), have the same or distinct meanings.

(1) a. Mike gave Mary a book.
    b. Mike gave a book to Mary.

Those who assume that both variants denote the same meaning advocate "the single meaning approach"; those who assume that the variants denote different meanings advocate "the multiple meaning approach." It is said that the currently dominant approach is the latter (Beck & Johnson (2004), Goldberg (1992, 1995), Harley (2003), Pinker (1989), to name a few). The multiple meaning approach entails that the double object variant denotes caused possession, and that the *to* variant denotes caused motion. Caused possession entails that the subject referent causes a recipient NP to possess a theme NP; caused motion entails that the subject referent transferrers a theme NP to a goal NP.

Rappaport Hovav and Levin (2008) (henceforth, RH & L (2008)) challenge this view. They classify relevant verbs into two types: *give*-type verbs and *throw*-type verbs. They claim that *give*-type verbs denote only caused possession in either variant, and that *throw*-type verbs denote caused possession and caused motion. As for *give*-type verbs, RH & L (2008) argue for the single meaning approach.

This paper examines *give*-type verbs and argues against RH & L (2008) that their behavior supports the multiple meaning approach.

RH & L (2008) claim that it is information structure and heaviness that determine the preference of one variant to the other. For example, in accounting for the different acceptability of the sentences in (2), they argue that sentences like (2b) become acceptable when the theme NP is given information, as illustrated in (3).

(2) a. Interviewing Richard Nixon gave Norman Mailer a book.   (Oehrle (1976: 44))
    b. * Interviewing Richard Nixon gave a book to Norman Mailer. (RH & L (2008: 151))
(3) A: It is very difficult to get an idea for a book simply from an interview.
    B: Well, interviewing Nixon gave an idea for a book to Mailer. (RH & L (2008: 157))

On the basis of these kinds of examples, RH & L conclude that *give*-type verbs denote one and the same meaning in either variant.

However, the explanation of the sentence in (3) uttered by Speaker B cannot straightforwardly apply to the sentences in (2), since the value of the theme NPs differs. In (2), it is *a book*; in (3), it is *an idea for a book*, which is "internal conceptual or emotional material" like *thoughts*, *meanings*, and *feeling* (Reddy (1979: 289)).

Note that sentence (2b) is distinctly odd even when the theme NP is given. Observe (4):

(4) A: It is very difficult to write a book simply from an interview.
    B: ??Well, interviewing Richard Nixon gave a book to Norman Mailer.

Thus one must provide an explanation for the differential acceptability of sentences like those in (2).

Consider also the sentences in (5), which should be dealt with in a parallel fashion to those in (2), since the value of the theme NP, *house* or *fortune*, is not internal conceptual or emotional material, either.

(5) a.　　Working hard for 20 years gave Mike a {house / fortune}.

　　b.　*　Working hard for 20 years gave a {house / fortune} to Mike.

(6) A:　　It is very difficult to {build a house / make a fortune} simply by working hard.

　　B:　??Well, working hard for 20 years gave a {house / fortune} to Mike.

The fact observed in (6) parallels that in (4).

　　If we assume that the double object variant denotes caused possession and the *to* variant denotes caused motion, we can straightforwardly account for the fact that sentences like (2) and (5) exhibit different acceptability.　That is, the gerund phrase in the subject position caused the recipient NP to have things like books, houses, and fortunes ((2a) and (5a)); in other words, the recipient NP wrote a book, built a house, or made a fortune by interviewing someone or working hard for certain years.　On the other hand, the same gerund phrase could not cause the theme NP to move along a path to the goal NP ((2b) and (5b)); in other words, interviewing or working itself could not physically move books, houses, or fortunes.

　　We can thus conclude that *give*-type verbs are accounted for not by the single meaning approach, but by the multiple meaning approach.

　　As for the sentence in (3) uttered by Speaker B, I argue that it is licensed by the Conduit Metaphor (e.g. Reddy (1979)), which "involves communication *traveling across* from the stimulus to the listener" (Goldberg (1992: 63)).　I argue that it is licensed in the same way as sentences like those in (7):

(7) a.　　This understanding gave meaning to her suffering.　　　(*The Attack of the Blob*)

　　b.　　Caring conveys a feeling of compassion and empathy.　　(*The Abc's of Values*)

I claim that the sentences in (2b) and (5b) are not licensed by this metaphor, since books, houses, and fortunes are not material that can be conveyed or made to be known.


References

Beck, S. and K. Johnson (2004) "Double objects again," *Linguistic Inquiry* 35, 97-123.

Goldberg, A. (1992) "The inherent semantics of argument structure: The case of the English ditransitive construction," *Cognitive Linguistics* 3, 37-74.

Goldberg, A. (1995) *Constructions*: *A construction grammar approach to argument structure*, University of Chicago Press, Chicago.

Harley, H. (2003) "Possession and the double object construction," *Linguistic variation yearbook* 2, 31-70, John Benjamins, Amsterdam.

Oehrle, R. (1976) *The grammatical status of the English dative alternation*, Ph.D. dissertation, MIT.

Pinker, S. (1989) *Learnability and cognition: The acquisition of argument structure*, MIT Press, Cambridge, Mass.

Rappaport Hovav, M. and B. Levin (2008) "The English dative alternation: The case for verb sensitivity," *Journal of Linguistics* 44, 129-167.

Reddy, M. (1979) "The conduit metaphor: A case of frame conflict in our language about language," *Metaphor and thought*, ed. by A. Ortony, 284-324, Cambridge University Press, Cambridge.

Japanese EPP Revisited: Negative Polarity and Degree Anaphora
Hideharu Tanaka (Osaka University)

Synopsis   This paper addresses the application of the *Extended Projection Principle* (EPP) to Japanese, which requires some DP to occupy [Spec, TP]. There are two competing hypotheses, **H1** and **H2**; **H1** states that Japanese obligatorily applies the EPP (e.g., Miyagawa 2001), while **H2** states that it does not (e.g., Kuroda 1988). In this paper, we provide new arguments for **H2** in light of negative polarity items (NPIs), which can be licensed in the sister domain of Neg(ation). Specifically, we demonstrate a need for the overt configuration in (1b), where the Neg head *nai* 'not' c-commands not only the internal argument (IA) but also the external argument (EA), and suggest that **H2** is preferred, as it ensures the possibility of (1b) without new stipulations.

(1)   a.   **H1** → Obligatory shift to [Spec, TP]   b.   **H2** → Optional shift to [Spec, TP]
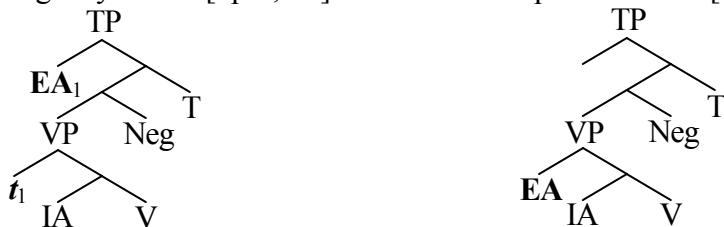
Data   We begin by clarifying what phrases in Japanese correspond to NPIs in English, such as *anyone*. Some previous studies assume that, for example, the focus particle *mo* 'also' can form NPIs with *wh*-pronouns, such as *dare-mo* 'who-also' (e.g., Aoyagi and Ishii 1994). However, Kataoka (2007) claims that *dare-mo* is licensed if it c-commands Neg in the same clause, which is a different license condition from that for NPIs. Moreover, Watanabe (2004) shows that *dare-mo* is not an NPI, as it lacks the properties of NPIs in (2) that are attested cross-linguistically:

(2)   a.   NPIs can be licensed by non-negative markers, such as Cond(itional) markers.
   b.   NPIs can be licensed by relevant markers even across finite-clause boundaries.
   c.   NPIs cannot be modified by "approximators" such as *almost*.
   d.   NPIs cannot be used as fragment answers.

Then, does Japanese have real NPIs? We claim that one candidate for NPIs is anaphoric degree phrases (ADPs), such as *sonnani-ookuno-NP* 'that-many-NP' (cf. Matsui 2011). There are two arguments for this. First, ADPs, like *dare-mo*, can be licensed by Neg, as shown in (3):

(3)   a.   *John-ga*   {*sonnani-ookuno-hito-o*/*dare-mo*}   *nagura-**nakat**-ta*.
      John-Nom   that-many-people-Acc/anyone   hit-Neg-Past
      'John did not hit {that many people/anyone}.'
   b. * *John-ga*   {*sonnani-ookuno-hito-o*/*dare-mo*}   *nagut-ta*.
      John-Nom   that-many-people-Acc/anyone   hit-Past
      'John hit {that many people/anyone}.'

Second, ADPs, but not *dare-mo*, hold the properties in (2a-d), as shown in (4a-d), respectively:

(4)   a.   [*John-ga*   {*sonnani-ookuno-hito-o*/*dare-mo} *nagutta*]-***ra*** *Tom-ga*   *naku-daroo*.
      John-Nom   that-many-people-Acc/who-also   hit-Cond   Tom-Nom cry-will
      'Tom will cry if John hit {that many people/anyone}.'

   b.   *Boku-wa* [*John-ga*   {*sonnani-ookuno-hito-o*/*dare-mo} *nagutta*]-***to*** *omottei-**nai***.
      I-Top   John-Nom   that-many-people-Acc/who-also   hit-C   think-not
      'I do not think that John hit {that many people/anyone}.'

c. *John-ga* [***hobo*** {*dare-mo*/**sonnani-ookuno-hito-o*}] *nagura-**nakat**-ta*.
   John-Nom almost anyone/that-many-people-Acc   hit-Neg-Past
   'John did not hit almost {anyone/that many people}.'

d. Q1: *Dare-o*   *nagutta-no*?   Q2: *Nan-nin-no-dansei-o*   *nagutta-no*?
         who-Acc hit-Q   what-Cl-Gen-men-Acc hit-Q
         'Who did you hit?'   'How many men did you hit?'
   A1: *Dare-mo*.   A2:* *Sonnani-ookuno-dansei*.
         who-also   that-many-men
         'Anyone.'   'That many men.'

Thus, we emphasize that ADPs, but not *dare-mo*, can be utilized to choose between **H1** and **H2**; if an ADP is licensed by Neg, then it follows that it remains in the sister domain of Neg, but the same is not true with *dare-mo* under Kataoka's (2007) view, as it needs to c-command Neg.

Claim   We now argue for **H2**, namely that Japanese does not obligatorily apply the EPP. The point is that there is no asymmetry between the subject ADP and the object ADP in their distribution in negative clauses; the former can also be licensed by Neg. This is illustrated in (5) (cf. (3a)), suggesting that the subject ADP can stay in the sister domain of Neg, as predicted by **H2**:

(5)   *Sonnani-ookuno-hito-ga*   *John-o*   *nagura-**nakat**-ta*.
      that-many-people-Nom   John-Acc hit-Neg-Past
      'That many people did not hit John.'

One might claim that this fact does not suffice to exclude **H1**, as long as we can assume that the subject in [Spec, TP] can be reconstructed into its base position within the sister domain of Neg. However, such reasoning makes wrong predictions cross-linguistically. That is, if EPP movement can be undone at LF for the purpose of NPI license, English should show no subject-object asymmetry, either. The fact contrary to this prediction is illustrated in (6):

(6) a.   Mary did **not** invite anyone.
     b. * Anyone did **not** invite Mary.   (Kataoka (2007: 78))

Thus, provided that English obligatorily applies the EPP, we need to adopt **H2**, not **H1**, to ensure that Japanese subjects can stay in their base positions without moving to [Spec, TP] at all.

Conclusion   If **H2** is correct, then it is one issue how to reinterpret the evidence that has been piled up for **H1** (e.g., Miyagawa 2001, Kishimoto 2001). We discuss this issue from the viewpoints of semantics and pragmatics, and attempt to analyze the relevant data in different ways.

References   **Aoyagi, H. and T. Ishii (1994)** "On Agreement-inducing vs. Non-agreement-inducing NPIs," *NELS* 24, 1-15. **Kataoka, K. (2007)** "Neg-o C-togyo-suru Hutei-go + Mo (The Indeterminate Word + Mo that C-commands Neg)," *Gengo Kenkyu* 131, 77-131. **Kishimoto, H. (2001)** "Binding of Indeterminate Pronouns and Clause Structure in Japanese," *LI* 32, 597-633. **Kuroda, S. (1988)** "Whether We Agree or Not: A Comparative Syntax of English and Japanese," *Linguisticae Investigationes* 12, 1-47. **Matsui, A. (2011)** "On the Licensing of Understating NPIs: Manipulating the Domain of Degrees for Japanese *A(n)mari* and *Sonnani*," *SALT* 21, 752-769. **Miyagawa, S. (2001)** "EPP, Scrambling, and Wh-in-situ," *Ken Hale: A Life in Language*, ed. by M. Kenstowicz, 293-338, MIT Press, Cambridge. **Watanabe, A. (2004)** "The Genesis of Negative Concord: Syntax and Morphology of Negative Doubling," *LI* 35, 559-612.

How to Say Why to, and Why
Hidekazu Tanaka / Okayama University

Whilst most English wh-phrases are compatible with an infinitive clause headed by *to*, the adjunct wh-phrase *why* is not (Shlonsky and Soare (2011)).

(1) I asked Bill who to serve
           what to serve the guests
           when to serve spiced aubergines

(2) I asked Bill ??why to serve spiced aubergines.

Shlonsky and Soare (2011, S&S) develop a cartographic account of the contrast. They argue that infinitive clauses are truncated, as struck out in (3), and do not have the functional layer (IntP), which licenses *why*. Hence, (2) is in principle ungrammatical, since *why* has no specifier to move into.

(3) ~~ForceP>IntP>TopP>FocP~~>WhP>FinP

Other wh-phrases move, according to Shlonsky and Soare, to the WhP-specifier, which is not spliced in infinitive clauses, and thus can co-occur with an infinitive clause. Infinitives are thus too small to license *why*, but big enough to license all other wh-phrases.

 By bringing in a novel set of data, the present talk shall point out empirical flaws in S&S's account. Our alternative account is based on the feature composition of *to*, which has *, an uninterpretable feature at the PF-interface. The uninterpretable feature gets checked off when *to** moves to C ((4b)). This only happens when the C searches its domain. Assume with Rizzi (1990) that *why* is base-generated/externally merged directly in the CP-specifier. The C that merges with *why* thus does not search its domain, TP. The infinitive marker *to** does not move to C, and the derivation crashes at PF.

(4) a.   CP   b.   CP

     why   C'   C'

        C   TP   C$_{[wh]}$ TP

          …to*…   …to*…what…
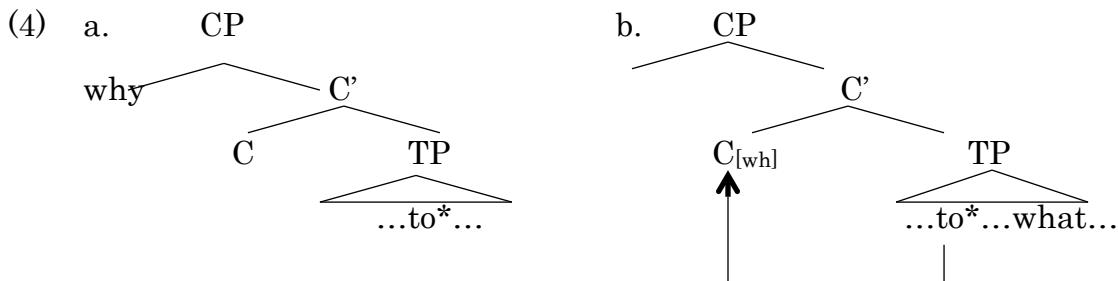
The empirical advantage of the proposal is that alleged ungrammaticality disappears when the infinitive marker *to** is elided, which suggests that the impossibility of (2) should be treated in the same way as island repair (Merchant (1999), Ross (1969)). The sentence in (5) becomes grammatical when the infinitive marker is dropped. Were it not for the ellipsis, the example remains ungrammatical.

(5) I asked Bill [$_{WhP}$ when to serve spiced aubergines] and [$_{IntP}$ why <*to serve spiced aubergines>].

The grammaticality of (5) constitutes a problem for S&S's cartographic

account: the coordination marker, *and*, under the well-established assumption (Akmajian and Heny (1980)), can only put together the same categories. If infinitive clauses project only up to WhP, *why*, which follows the coordination marker can only be as large as WhP, but (5) is nonetheless grammatical. The grammaticality of (5) naturally follows from our assumption that *to** carries a PF uninterpretable feature. When the uninterpretable feature is elided, the derivation converges.

What is elided in (5) is not a TP (sluicing), but is a VP (VP-deletion). The infinitive marker *to* is elided independently of the VP-deletion, which gives an illusion of sluicing. The infinitive marker *to* can delete when its complement VP is elided. This point is shown by (6), which is grammatical with or without the infinitive marker (Tanaka (2011)).

(6)   None of us can cook aubergines, unless someone shows us how (to).

The interpretation of this sentence does not include the negative quantifier in the subject position of the antecedent clause. (6) thus cannot mean what (7) would mean.

(7)   None of us can cook aubergines, unless someone shows us how none of
        us can cook aubergines.

What is elided in (6) does not include the subject negative quantifier, and (5) must be a case of VP-deletion. The infinitive maker *to** can delete independently of the VP-deletion, giving an illusion of a TP-ellipsis, sluicing (Tanaka (2011)). (8), then, shows that eliding *to** salvages the potentially problematic *why-to* sequence.

(8)   No one will cook aubergines, unless someone tells us why (to*).

Note that (8) is also a case of VP-deletion, since the subject negative quantifier is included in the interpretation of the ellipsis site. When *to** remains unelided, the sentence is ungrammatical.

The more recent studies on ellipsis posit that VP-deletion requires a syntactically identical antecedent (Merchant (2014), Tanaka (2011)). The dropping of *to** in (6) and (8), which does not require syntactically identical antecedent, must be a PF phenomenon. Thus, the grammaticality of (8) supports our thesis that *to** has a PF-uninterpretable feature.

Time permitting, I will explore some consequences of the present proposal: i) what Yoshida (2010) refer to as Antecedent Contained Sluicing in (9) must also be a case of VP-deletion, coupled with PF-deletion of *to*; ii) so-called island repair must be treated at PF.

(9)   ?John doesn't love anyone without knowing who.

References
Akmajian, A. and F. Heny. 1980. An introduction to the principles of transformational syntax. MIT Press.
Merchant, J. 2001. Syntax of silence. OUP.
Merchant, J. 2013. Voice and ellipsis. LI44. 77-108.
Ross, J. 1969. Guess Who? CLS5, 252-286.
Shlonsky, U. and G. Soare. 2011. Where's 'why'? LI42. 651-669.
Tanaka, H. Syntactic identity and ellipsis. TLR28, 79-110.
Yoshida, Masaya. 2010. Antecedent contained sluicing, LI41:348-356.

Effects of orthography on loanword adaptation of English diphthong /ei/ to Japanese
Kanako Tomaru (Sophia University)

BACKGROUND:

Japanese has imported many words from English. The process of importing, or adapting, words from one language into another is called *loanword adaptation*. The language that provides the words is called *the source language*, and the language that imports the words as *loanwords* is called *the adapting language*. In loanword adaptation, phonetic structures of original words of the source language are often changed to conform to the phonetic structures of the adapting language. When adapting words from English, for example, Japanese changes the original phonetic form of English words by either (1) inserting vowels into consonant clusters (e.g., *strike* → ストライク /sutoraiku/), (2) assigning Japanese consonants to English consonants (e.g., *thanks* → サンクス /saɴkusu/) or (3) representing English vowels, which have wider variation than Japanese, by Japanese five vowels (e.g., English /æ/ and /ʌ/ tend to be represented by Japanese /a/: *cat*→ キャット /kʲatto/ and *cut* → カット /katto/). Studies on loanword adaptation (Yip, 1993; Kenstowicz, 2005; Kaneko and Iverson, 2009; among others) suggest that changes in phonetic forms of source language involve multiple factors, including orthography of the source language.

PRESENT RESEARCH:

In this study, the effects of orthography on the adaptation of the English diphthong /ei/ into Japanese are investigated. In Japanese loanwords from English, either (1) a single two-mora vowel or (2) a sequence of two vowels are assigned to the following English diphthongs: /ow/, /aɪ/, and /aw/.

(1) English /ow/ → Japanese /oː/:
    hole → ホール /hoːru/
    home → ホーム /hoːmu/

(2) a. English /aɪ/ → Japanese /ai/:
    flight → フライト /ɸuraito/
    night → ナイト /naito/

    b. English /aw/→Japanese /aɯ/:
    out → アウト /auto/
    crown → クラウン /kurauɴ/

On the other hand, English /ei/ does not show such a straightforward adaptation. It can be adapted as either a single vowel (*single-vowel form*) (see 3-a), or a sequence of two vowels (*two-vowel form*) (see 3-b):

(3) a. English /ei/ → Japanese /eː/ or /e/:
    sale → セール /seːru/
    cake → ケーキ /keːki/
    change → チェンジ /čeɴji/
    range → レンジ /reɴji/

    b. English /ei/ → Japanese /ei/:
    eight → エイト/eito/
    aid → エイド /eido/
    away → アウェイ/awei/

1

This study suggests that variation of the assigned form for English /ei/ is caused by the orthography of the source word. That is, a single vowel is assigned when the diphthong is spelled with one letter, and a sequence of two vowels is employed when the diphthong is spelled with two letters. For the acoustic analysis, the present study recorded loanwords produced by a male speaker of Japanese to examine whether the loanwords are actually produced as they are written in Japanese katakana (as above). Additionally, the present study further analyzed the relationship between katakana transcription and pronunciation of some exceptions such as *hate* ヘイト /heito/, *take* テイク /teiku/, and *straight* ストレート /sutoreːto/. The analysis found that these exceptions accept both ways, i.e., single-vowel form and two-vowel form. For example, *hate* ヘイト is frequently produced as ヘート /heːto/ in actual pronunciation; ストレート /sutoreːto/ can also be spelled as ストレイト /sutoreito/.

CONCLUSION:

Based on the observational analysis, the study suggests that adaptation of English /ei/ is strongly affected by orthography of a source word. However, it is easily influenced by factors related to the social usage of words, including "heard impression of a loanword should be similar to a source word" and "highly familiar loanwords should be unaccented."

REFERENCES:

Dupoux, Emmanuel, K. Kakehi, Y. Hirose, C. Pallier and J. Mehler (1999) "Epenthetic Vowels in Japanese: A Perceptual Illusion?," *Journal of Experimental Psychology: Human Perception and Performance,* 25, 1568-1578.

Kaneko, Emiko, and Gregory K. Iverson (2009) "Phonetic and Other Factors in Japanese On-line Adaptation of English Final Consonants," *Studies in Language Sciences 8: Papers from the Eighth Annual Conference of the Japanese Society for Language Science*, ed. by Shunji Inagaki and Makiko Hirakawa, 179-196, Kurosio Publications, Tokyo.

Yip, Moira (1993) "Cantonese Loanword Phonology and Optimality Theory," *Journal of East Asian Linguistics,* 2, 261-291.

Kenstowicz, Michael (2005) "The Phonetics and Phonology of Korean Loanword Adaptation," paper presented at First European Conference on Korean Linguistics, Leiden University, Leiden.

A Voice-Bundling Parameter Account for Romance Anti-causatives
Masaki Yasuhara (University of Tsukuba)

Several languages such as Greek exhibit two types of anti-causatives, those in active form and those in non-active form (henceforth, ACT and NACT, respectively), as shown in (1).

(1) a. To   ktirio   gremise   apo   mono tu.
          the building collapsed.ACT by   itself

      b. To   ktirio   gremistike   apo   mono tu.
          the building collapsed.NACT by   itself

(Alexiadou and Anagnostopoulou (2004))

The two types of anti-causatives can be distinguished morphologically. The anti-causative in (1a) has ACT morphology whereas that in (1b) has NACT morphology. Alexiadou (2010) argues that NACT anti-causatives have a more complex vP structure than ACT anticausatives; the former involve an additional layer on top of the vP structure of the latter.

Yasuhara (2014) extends Alexiadou's analysis and explains the existence of two types of Greek anti-causatives from the point of view of Voice-Bundling parameter (Pylkkänen (2008)). This parameter groups languages into two types, Voice-Bundling languages and non-Voice-Bundling languages. Voice is the head introducing an external argument and Cause is the head introducing a causing event. Voice and Cause are bundled together in Voice-Bundling languages, as in (2a), whereas they are separate in non-Voice-Bundling languages, as in (3a).

(2)   *Transitive*   *Anti-causatives*

(Voice-Bundling)

(3)   *Transitive*   *Anti-causative I*   *Anti-causatives II*
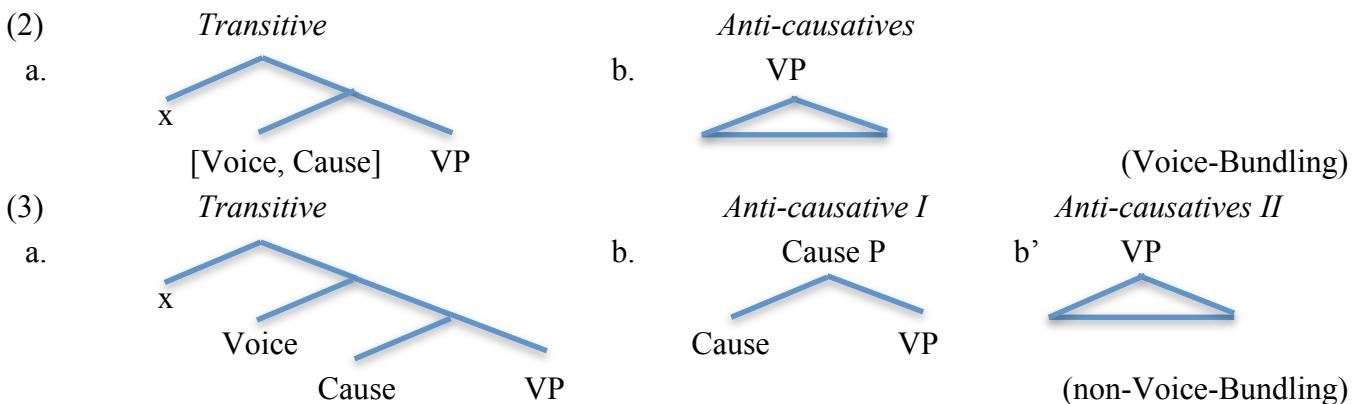
(non-Voice-Bundling)

In Voice-Bundling languages, Cause is combined with Voice, so the presence of Cause requires the occurrence of an external argument. In non-Voice-Bundling languages, on the other hand, Cause is independent of Voice, so the presence of Cause does not require the occurrence of an external argument. Yasuhara argues that Greek is a non-Voice-Bundling language and that NACT morphology is an overt realization of Cause (i.e., (1a) includes structure (3b)) whereas ACT morphology reflects its absence (i.e., (1b) includes structure (3b')).

The purpose of this paper is to show that the Voice-Bundling parameter provides a natural account for Romance anti-causatives as well. Romance languages such as Italian, French and Spanish also have two types of anti-causatives, those with a reflexive clitic and those without it (e.g. Folli (2002), Labelle and Doron (2010), Teomiro (2013)). Hereafter, we will call them marked and unmarked anti-causatives, respectively.

(4) a. Il   cioccolato   si   è   fuso. (marked anti-causative)
          the chocolate   REFL is   melted

      b. Il   cioccolato   è   fuso. (unmarked anti-causative)
          the chocolate   is   melted

Italian (Folli (2002))

I propose that Romance languages belong to non-Voice-Bundling languages and that the reflexive clitic in marked anti-causatives in Romance languages is an overt realization of the Cause head (i.e., the structure in (3b)) whereas this head is absent in unmarked anti-causatives (i.e., the structure in (3b')).

If this proposal is on the right track, we can predict that NACT/marked anti-causatives and ACT/unmarked ones exhibit a different aspectual meaning because only the former involve a causing and a result event in the vP structure (i.e. (3b)) (cf. Hale and Keyser (1993)). Specifically, we predict that NACT/marked anticausatives encode a telic interpretation. This prediction is confirmed by the following data.

(5) a. * To   ktirio   gremise   se ena simio   alla den gremise   entelos.
        the   building collapsed.ACT   in one spot   but   NEG collapsed.ACT completely

    b.   To ktirio   gremistike   se ena simio alla den gremistike   entelos.
         the building collapsed.NACT in one spot   but   NEG collapsed.NACT   completely

                    Greek (Alexiadou and Anagnostopoulou (2004), with slight modifications)

(6) a.   La   casa   è   bruciata,   ma   non   è   bruciata.
         the   house   is   burned   but   not   is   burned

    b. * La   casa   si   è   bruciata,   ma non   è   bruciata.
         the   house   REFL is   burned   but not   is   burned

                    Italian (Folli (2002), with slight modifications)

The ACT anti-causative cannot go along with a complete change of state interpretation, as indicated by the incompatibility with the adverb *entelos* "completely," whereas this adverb is compatible with the NACT anti-causative. This contrast suggests that ACT and NACT anti-causatives are associated with atelic and telic interpretations, respectively (cf. Alexiadou and Anagnostopoulou (2004)). The same is true of Italian anti-causatives in (6). The achievement of a final state can be negated in (6a) but not in (6b). This fact indicates that the reflexive clitic encodes a telic interpretation. The same observation is true of marked and unmarked anti-causatives in other Romance languages such as French and Spanish (Labelle and Doron (2010), Teomiro (2013)).

To sum up, this paper has argued that the existence of two types of anti-causatives in Romance languages can be attributed to their non-Voice-Bundling property. The morphology of marked anti-causatives reflects the Cause head whereas unmarked ones do not involve it. Although Greek and Romance languages use different morphological devices, they share the mechanism for making a distinction between two types of anti-causatives.

References

Alexiadou, A. (2010) "On the Morphosyntax of (Anti)Causative Verbs," in M. Rappaport Hovav, E. Doron and I. Sichel (eds.) Lexical Semantics, Syntax, and Event Structure, Oxford: Oxford University Press. / Alexiadou, A. and E. Anagnostopoulou (2004) "Voice Morphology in the Causative-Inchoative Alternation: Evidence for a Non-Unified Structural Analysis of Unaccusatives," in A. Alexiadou, E. Anagnostopoulou and M. Everaert (eds.) *The Unaccusativity Puzzle*. Oxford: Oxford University Press. / Folli, R. (2002) Constructing Telicity in English and Italian. Ph.D. dissertation. University of Oxford. / Hale, K, and S. J. Keyser (1993) "On argument structure and the lexical expression of syntactic relations," in K. Hale and S. J. Keyser (eds.) *The view from building 20: Essays in lingusitics in honor of Sylvain Bromberger*, 53–110. Cambridge, MA: MIT Press. / Labelle, M. and E. Doron (2010) "Anticausative Derivations (and Other Valency Alternations) in French," *Probus* 22, 303-316. / Pylkkänen, L. (2008) *Introducing Arguments*, MIT Press, Cambridge, MA. / Teomiro García, II. (2013). "Low Applicatives and Optional "se" in Spanish Non-Anticausative Intransitive Verbs," *Revista de Lingüística y Lenguas Aplicadas* 8(1):140-153, Universitat Politècnica de València. / Yasuhara, M. (2014) "The Typology of Anti-Causatives Denoting Externally Caused Event from the Viewpoint of the Voice-Bundling Parameter: Evidence from Japanese Anti-Causatives." Paper presented at 7th Formal Approach to Japanese Linguistics. NINJAL/ICU.