Embedded Topicalization in Tibetan

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1. Introduction

This paper investigates the distribution of the topic marker *-ni* in Tibetan, and compares its distribution with that of Japanese topic marker *-wa*, and shows two findings. First, in Tibetan, an ergative language, the ergative case marker *-kyis* cannot be replaced by the topic marker *-ni*. On the other hand, in Japanese, an accusative language, the nominative case marker *-ga* can be replaced by the topic marker *-wa*. Second, in Tibetan, embedded topicalization is possible within non-L-marked clauses, while it is impossible in Japanese. We will consider what these findings might suggest for the theory of (Tibetan) grammar.

2. Background

The Tibetan data examined in this paper is from the Amdo dialect of the Tibetan language. Tibetan is an ergative language, with an SOV order, as shown in (1). The subject of a transitive verb is marked ergative *-kyis*, and the object of a transitive verb is makred absolutive, which does not have a phonetic content, as shown by *-ø*. A sentence with an intransitive verb is shown in (2). In (2), the subject is not marked ergative *-kyis*, but marked absolutive *-ø*.

(1) Bkrashis-kyis dpecha-adi-ø nyos.
Bkrashis-Erg book-the-Abs bought
'Bkashis bought the book.'

(2) Dering Bkrashis-ø slebssong.
today Bkrashis-Abs came
'Today Bkrashis came.'

3. Data

First, in (3), when the subject in the embedded clause is marked by the topic marker, the sentence is totally ungrammatical.

(3) * Bkrashis-ø [Sgrolma(-kyis)-**ni** dpecha-adi-ø bklagsyod]-par yidchasbyasyod.
Bkrashis-Abs Sgrolma-Erg-Top book-this-Abs read-at believe
'Bkrashis believes that Sgrolma read this book.'

In contrast, the embedded object, when fronted to the initial position of the embedded clause, can be marked by the topic marker, and has a topic meaning, as shown in (4).

(4) Bkrashis-ø [dpecha-adi-**ni** Sgrolmas *t* bklagsyod]-par yidchasbyasyod.
Bkrashis-Abs book-this-Top Sgrolma.Erg read-at believe
'Bkrashis believes that this book, Sgrolma read.'

Second, the same pattern is also observed within a relative clause. When the subject of the relative clause in (5) is followed by the topic marker, the sentence is totally ungrammatical.

(5) * Sgrolmas [Bkrashis-**ni** dpecha-adi-ø nyos-b'i nyin de]-ø
Sgrolma.Erg Bkrashis-Top book-this-Abs bought-Gen day that-Abs
yid la bzungyod.
remember
'Sgrolma remembers the day when Bkrashis bought this book.'

However, when the object is moved to the initial position of the relative clause, it has a topic reading, as shown in (6).

(6) Sgrolmas [dpecha-adi-**ni** Bkrashis-kyis *t* nyos-b'i nyin de]-ø
Sgrolma.Erg book-this-Top Bkrashis-Erg bought-Gen day that-Abs
yid la bzungyod.
remember
'Sgrolma remembers the day when Bkrashis bought this book.'

Third, the same pattern is also observed within a relative clause, where the head noun of the relative clause is *mi* 'man.' In (7), the object in the relative clause has a contrastive meaning, while in (8), it has a topic reading.

(7) Bkrashis-ø [NP [IP khasang dpecha-adi-**ni** bklagspa]-'i mi]-la thug.
Bkrashis-Abs yesterday book-this-Top read-Gen man-to met
'Bkrashis met the man who read this book, as opposed to....'

(8) Bkrashis-ø [NP [IP dpecha-adi-**ni** khasang *t* bklagspa]-'i mi]-la thug.
Bkrashis-Abs book-this-Top yesterday read-Gen man-to met
'Bkrashis met the man who read this book yesterday.'

4. Discussion

Let us now consider what the newly solicited examples might suggest for the theory of (Tibetan) grammar. First, the case marker facts in Tibetan and Japanese suggest that in Tibetan, the ergative Case feature is on the ergative case marker itself, but in Japanese, the nominative Case feature is on the NP. Therefore, while in Tibetan, once the ergative case marker *-kyis* is replaced by the topic marker *-ni*, the ergative Case feature on the predicate/INFL cannot be licensed, so that the sentence is ruled out, in Japanese, even if the nominative case marker *-ga* is replaced by the topic marker *-wa*, the nominative Case feature on the predicate/INFL can be licensed, so that the sentence is ruled in. Second, embedded topicalization is possible within non-L-marked clauses in Tibetan, while it is impossible in Japanese. Note that while the Japanese counterpart of (4) is grammatical, the Japanese counterparts of (6) and (8) are ungrammatical. Following Maki et al. (1999), we argue that while in Japanese, a topic in embedded contexts should be subject to two conditions (i) that a topic is licensed in the projection of Infl, and (ii) that Infl is licensed by adjoining to Comp in LF, in Tibetan, a topic in embedded contexts should only be subject to condition (i). Given Maki and Ó Baoill's (2014) claim that in Irish, a topic is licensed in the Spec of Comp, the facts in Tibetan suggest that there is a three-way language variation in terms of licensors of embedded topicalization: languages like Japanese require the two licensing conditions in (i) and (ii); languages like Tibetan only require the licensing condition in (i); and languages like Irish require the third condition that a topic is licensed in the Spec of Comp.

Relative Clauses in Buyi

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1. Introduction: This paper investigates properties of relative clauses in Buyi, a language spoken in Guizhou Province of China, and elucidates the mechanism behind relative clause formation in the language. Buyi allows relative clauses to follow or precede the relative heads. Focusing on prenominal relative clauses, we will argue that feature movement originally proposed in Chomsky (1995) does exist in grammar, as Takahashi (1997) demonstrated based on independent examples, and that feature movement is independent of the operation Agree proposed in Chomsky (2000).

2. Background: Edmondson and Solnit (1997) state that Buyi is one of the Thai-Kadai languages. This section provides basic syntactic properties of Buyi as background to subsequent sections. First, Buyi is an SVO language, as shown in (1).

(1) Zhangsan chengzan Lisi.
Zhangsan praise Lisi
'Zhangsan praised Lisi.'

Second, a modifier to a noun is placed after the noun in Buyi, as shown in (2).

(2) shu Zhangsan
book Zhangsan
'Zhangsan's book'

Third, a relative clause follows the head noun in Buyi, as shown in (3)

(3) Shu [Lisi zai na jia dian mai] shi zhe ge shu.
book Lisi at the Cl store buy be this Cl book
'The book which Lisi bought at the store is this book.'

3. Data: Let us examine relative clauses in Buyi in more detail. Buyi is a head-initial language, and a relative clause follows the head nominal, as shown in (3) and (4)–(6).

(4) Ren [zai na jia dian mai na ben shu] shi Zhangsan. (subject)
man at the Cl store buy the Cl book be Zhangsan
'The man who bought that book at the store is Zhangsan.'

(5) Tian [Zhangsan mai na ben shu] shi qiantian. (time adverb)
day Zhangsan buy the Cl book be the.day.before.yeseterday
'The day when Zhangsan bought the book is the day before yesterday.'

(6) Liyou [Zhangsan mai na ben shu] shi zhe ge liyou. (reason adverb)
reason Zhangsan buy the Cl book be this Cl reason
'The reason why Zhangsan bought the book is this reason.'

Interestingly enough, relative clauses may precede the head nominals only when they involve object relativization, as shown in (7)–(10).

(7) [Lisi zai na jia dian mai] shu shi zhe ge shu. (object)
Lisi at the Cl store buy book be this Cl book
'The book which Lisi bought at the store is this book.'

(8) * [Zai na jia dian mai na ben shu] ren shi Zhangsan. (subject)
at the Cl store buy the Cl book man be Zhangsan
'The man who bought that book at the store is Zhangsan.'

(9) * [Zhangsan mai na ben shu] tian shi qiantian. (time adverb)
Zhangsan buy the Cl book day be the.day.before.yeseterday
'The day when Zhangsan bought the book is the day before yesterday.'

(10) * [Zhangsan mai na ben shu] liyou shi zhe ge liyou. (reason adverb)
Zhangsan buy the Cl book reason be this Cl reason
'The reason why Zhangsan bought the book is this reason.'

Furthermore, relativization of this type is also possible when the predicates in the relative clauses are unaccusative or passive, as shown in (11)–(13).

(11) [Daoda Beijng zhan] huoche shi zhe liang huoche. (unaccusative)
arrive Beijing station train be this Cl train
'The train that arrived at Beijing Station is this train.'

(12) [Bei dajia chengzan] ren shi zhe ge ren. (passive)
by everyone praised person be the Cl man
'The person who was praised by everyone is this man.'

(13) * [Dasheng ku] ren shi zhe ge ren. (unergative)
loudly laugh person be the Cl man
'The person who laughed loudly is this man.'

4. Discussion: Let us now consider what the observed facts might suggest for the theory of (Buyi) syntax. The examples seem to show an asymmetry between base-generation sites of the relative heads: when the relative head is associated with a complement position, relativization is possible, but when it is associated with a non-complement position (a subject or an adjunct), relativization is impossible. This reminds us of Takahashi's (1997) Move-F analysis of asymmetries of null operator constructions, according to which movement of a feature out of a null operator that corresponds to an adjunct or a derived subject is banned due to a constraint on movement such as Chomsky's (1973) Subjacency Condition. If we assume that prenominal relative clauses in Buyi involve a base-generated null operator, and only the relevant feature moves out of the null operator to the relative head, the fact that (7), (11) and (12) are grammatical, while (8)–(10) and (13) are ungrammatical is precisely predicted. Note here that Chomsky's (2000) Agree alone does not predict the asymmetry. Therefore, the Buyi examples investigated in this study provide another piece of evidence for the hypothesis that feature movement is real, and is independent of Agree.

Issues of image-based instruction: Focusing on errors of Japanese EFL learners

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1. Introduction

Nowadays, researches are conducted which take into account the utility of linguistics in English as a Foreign Language (EFL) settings. In particular, cognitive linguistics is a new area of enquiry that informs mainstream EFL pedagogy and research (Tanaka, Sato and Abe, 2006). These studies crucially assume that participants actively refer to the image schema in recognizing or producing prepositions. Many experimental studies, therefore, suggest that the instruction based on a cognitive linguistic perspective has more pedagogical effects on learning than traditional instruction.

Results from previous studies indicate that the instruction of English prepositions is one area where a cognitive linguistics view and the use of images have been particularly beneficial. Previous experimental studies have employed the image diagrams of Tanaka and Matsumoto (1997) or Tyler and Evans (2003), and have investigated their effectiveness on learners' acquisition of English prepositions.

2. Issue of Image-use Based Instruction

Many of the previous experimental studies rely on image diagram (citations) but Kano (2018) claims "image-use" has two issues to be dealt with. First, it may fossilize learners' understanding of more extended prepositional usage. The second issue is related to feedback to learners. When learner make an error of the figurative use of a preposition, instructors have difficulty in explaining why it is ungrammatical through the use of an image.

3. Pilot study

In order to examine how Japanese EFL learners understand the usage of certain prepositions, a survey was conducted on what image Japanese learners have in mind when choosing appropriate new prepositions in a multiple-choice test situation. Participants consist of 72 Japanese university students. The procedure of the study is as follows.

(I) Participants answered 25 questions containing target prepositions such as *over*, *above*, *under*, and *below,* and also dummy prepositions such as *on*, and *in*. The usage of target prepositions was categorized into three types; spatial, temporal and abstract. Each question consists of an English sentence which included one blank and a Japanese translation of it. Some examples were shown below in (1-3):

(1) There's a bridge ( ) the river. (spatial usage of *over*)
(2) ( ) the next few days, I learned all about the new project. (temporal usage of *over*)
(3) I think I'm ( ) my cold now. (abstract usage of *over*)

(II) Participants were asked about the awareness in answering the last six questions. They chose the most appropriate one from five choices of "by intuition", "by referring to the image of a preposition", "I memorize the usage in question", "I chose 'I don't know' in the question", and "etcetera".

(III) Follow-up interview was conducted to investigate what kind of image they refer to in answering questions. Test answers were analyzed by hierarchical cluster analysis (Ward's method) with R (R core team, 2018) and three clusters were produced. Two or three participants were randomly chosen from each cluster, and a

total of eight participants were interviewed.

The result of the present study revealed two points. One is the fact that, in all the last six questions, over half of the participants were aware of the image of the preposition in answering the question. Of 72 students, 53 students (73.6%) referred to the image in the first question of the last six items, 41(56.9%) in the second question, 56 (77.8%) in the third question, 44 (61.1%) in the fourth question, 40 (55.6%) in the fifth question, and 40 (55.6%) in the sixth question. It is found that many of the participants depend on the image for answering the questions.

The other finding is the fact that participants were aware of the wrong image of certain prepositions in the context where another one should be selected instead, thus produced a wrong answer. An example of the wrong image is shown below for the question "The issue is ( ) discussion".

Figure 1. The image wrongly drawn by a participant

In this case, *under* should be selected instead of *on*. In the interview, he/she said she selected *on* because she had a kind of image of "The issue is put on a discussion". The author considers this happens because the semantic network of the student is not yet fully-built. This kind of error is seen in various cases.

4. Future Research Implications

In the future research, a potential of alternative teaching method which overcome issues of the image-use, such as DDL (Data Driven Learning) which Chujo et al. (2016) propose, should be explored in order to probe how L2 learners are constructing the image schema; the contact between bottom-up and top-down approaches.

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Select as *MERGE*

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Whether a *Select*-like operation is necessary (for example, Collins & Stabler 2016), or dispensable (see Bošković & Messick to appear among others) has been a matter of debate in Generative Grammar (GG). Under the strong minimalist thesis SMT, *Merge* (more recently, *MERGE*; see Chomsky *et al*. 2017) is claimed to be the only simplest operation in Universal Grammar (UG) (see Chomsky 2005 among others). But *Merge* in current sense is not the simplest at all, as it also tacitly plays the role of *Select*. A significant amount of researchers have actually proposed to "decompose" *Merge* into a set of suboperations like *Concatenate* and *Select* (Boeckx 2009) or *0-Merge* and *0-Search* (Narita et al. 2017), but this is not a popular move in the literature since it apparently increases the complexity of UG, and therefore should be avoided as much as possible under SMT. To surmount this dilemma, I claim the following in this paper: (I) *Select* differentiates a set of features from others, making it mergeable. (II) This effect of *Select* suggests that it is just the other side of *Merge*, securing its computational efficiency. (III) Accordingly, there is no violation of SMT.

Before analyzing the *Select* operation, let us first see the computational substance of *MERGE*. It is the operation on a workspace WS which "represents the stage of the derivation at any given point" (Chomsky *et al*. 2017). It takes two sets of atomic concepts = feature bundles for computation, which are called syntactic objects SOs, and combines them to make an unordered set. The output of *MERGE* is also an SO. This is described in (1) below[1].

(1) For any accessible terms P, Q in a WS, MERGE(P, Q, WS) = [{P, Q}, X_1, … X_n] = WS', where
  (i) $Y \in WS$ and $Y \neq P, Q \rightarrow Y \in \{X_1, \ldots X_n\}$
  (ii) accessible terms appear only once in WS'
  (iii) $\{X_1, \ldots X_n\}$ minimal

Three questions immediately arise; (i) What guarantees that X and Y are actually SOs? (ii) How does *MERGE* know these two are actually distinct? (iii) Why X_1 …… X_n are already in the WS?

To answer question (i), let us tentatively suppose the *Select* operation serves as a "decomposer." That is to say, *Select* generates mergeable objects from a messy stack of atomic concepts (i.e., the Lexicon LEX)[2] by mapping its copy onto the WS[3], as in (2).

(2) In the lexicon LEX$\{X_1 \ldots\ldots X_n\}$, SELECT$(X_i) \rightarrow$ WS$[X_i]$ vs LEX$(\{X_1 \ldots X_n\} - X_i)$[4]

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[1] See Komachi et al. 2018 for the formalization of this *MERGE* operation.

[2] A reviewer questioned what "a messy stack of atomic concepts" is, and here is the answer; the LEX. It is messy in the sense that all the concepts stored there are undistinguished from one another; after *Selection*, the *Selectee* is differentiated and hence gets "linguisticized." From a biolinguistic viewpoint, I assume these undistinguished concepts are to some extent shared with other animals, which I put aside here for reasons of space. I thank Koji Fujita (p.c.) for suggesting this point to me.

[3] Note that *Select* does not map the *Selected* bundle of concepts *per se* onto the WS; otherwise, all the *Selected* computational atoms would disappear every time we generate a linguistic expression, apparently contrary to fact.

[4] To be precise, there is no such thing as $X_1 \ldots\ldots X_n$ in the LEX as the concepts are messily mingled up before any *Select* application.

(2) illustrates that X_i is *Selected* and hence differentiated from $\{X_1 \ldots X_n\}$ in the LEX, and the *Selectee* X_i is mapped onto the WS as an LI. Given that *Select* is a syntactic operation on atomic concepts, *Selected* items are obviously SOs = bundles of concepts. In this sense, *Select* serves as a differentiator of an arbitrary bundle of semantic features SEM-F from others. Call this *SELECT*.

Witness already that this *SELECT* solves all the questions (i) to (iii) casted above; *SELECT* differentiates a bundle of SEM-Fs and hence makes it mergeable by mapping its copy onto the WS, and hence the distinctness of mergeable items is safely secured by this *SELECT* operation. In addition, *SELECT* also serves as the function which maps SEM-Fs onto the WS.

This *SELECT* is the same as *MERGE* in that both generate an SO, a bundle of features = expressions with internal hierarchical structure. Moreover, *SELECT* always yields binary outputs from unitary inputs as in (2), while *MERGE* generates unitary outputs from binary inputs generated via *SELECT*. This factual assumption reveals that *SELECT* is the flip side of *MERGE*. So the evolutionary explananda will not be increased and there is no violation of SMT.

It is worth noting here that *SELECT* also secures the computational efficiency of *MERGE*. Chomsky (2000) claims that "[o]perative complexity is reduced if L(anguage) makes a one-time selection of a subset [F] of F, dispensing with further access to F." If this is correct, the operative complexity of *MERGE* is reduced by a *Select*-like operation. Chomsky does not discuss any computational substance of this *Select* operation, but now it is clear that *SELECT* is the one that bundles up the semantic features to generate an SO in the WS without *MERGing* each one of them successively; hence it serves as a computational efficiency securer of *MERGE* by reducing the number of its application in the WS. So *SELECT* serves as a mapping function of mergeable SOs onto the WS for *MERGE* in an efficient way.

Based on these observations, I will argue from an evolinguistic perspective that this *SELECT* operation gave rise to the mind-dependency of the human language concepts (Berwick & Chomsky 2016), which harmonizes with core ideas in Distributed Morphology (Marantz 2000 *et seq*.).

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Quantificational Reading as Implicature

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1. Introduction

This paper argues that the so-called quantificational reading (Q-reading) of null arguments (Takahashi 2008, Şener and Takahashi 2010) should be analyzed by conversational implicature (Grice 1975). (1) is a quintessential example of the Q-reading, and the omitted site in (1)b is ambiguous between two readings: Taro respects most teachers that are identical to the teachers Hanako respects (E-type reading); Taro respects most teachers that are not identical to the teachers Hanako respects (Q-reading). (Note that *e* stands for an empty site.) Takahashi (2008) proposes, based on the observation, that the Q-reading in (b) is derived by eliding the quantified object at PF under identity, as in (2), and as such the Q-reading is claimed to be licensed by argument ellipsis.

(1) a. Hanako-ga taitei-no sensei-o sonkeisiteiru.
Hanako-NOM most-GEN teacher-ACC respects
"Hanako respects most teachers."
b. Taro-mo *e* sonkeisiteiru.
Taro-also respects
"lit. Taro respects *e*, too." (Adapted from Takahashi 2008:310)

(2) b. Taro-mo ~~taitei-no sensei-o~~ sonkeisiteiru.

The central goal of this paper is to challenge such a view in favor of a pragmatic solution. Specifically, it is shown that the Q-reading should be attributed to conversational implicature, primarily because the Q-reading is cancellable given appropriate contexts. This conclusion further lends support to Saito's (2017) generalization to null arguments.

2. Proposal

The proposal is that the Q-reading of null arguments falls under conversational implicature. Before going into the details of the analysis, let us confirm a distinction between entailment and implicature in terms of cancellability (Grice 1975). To take (3) for example, the sentence *John has three cows* entails that John has two cows, and conversationally implicates that John has only three cows and no more. Of significant importance is that, while this sentence must not be followed by *in fact none*, which is intended to cancel the entailment, as in (4)a, it can be followed by *in fact ten*, which cancels the implicature, as in (4)b. Thus, cancellability is claimed to be a useful diagnostic test for conversational implicature.

(3) John has three cows.
ENTAILMENT: John has two cows.
IMPLICATURE: John has only three cows and no more.
(Based on Levinson 1983:115)

(4) a. *John has three cows, in fact none.
b. John has three cows, in fact ten. (Levinson 1983:115)

Interestingly enough, it can be confirmed that the Q-reading of null arguments in Japanese is cancellable, and in fact, the meaning of the quantifier *taitei-no* "most" disappears given such a context as in (5). This example is formed by adding to (1) the information that Taro only

respects some teachers, which cancels the meaning of *taitei* "most," but this context is judged fully acceptable. If, on the other hand, the quantified object *taitei-no sensei-o* "most teachers" is phonetically realized, unacceptability emerges, as in (6). This amounts to saying that Takahashi's (2008) PF-deletion under identity erroneously outputs the interpretation in (6). Taking this into consideration, it is better to view the Q-reading as a by-product of conversational implicature without recourse to ellipsis/deletion.

(5) a. Hanako-wa taitei-no sensei-o sonkeisiteiru.
Hanako-TOP most-GEN teacher-ACC respects
"Hanako respects most teachers."

b. Taro-mo *e* sonkeisiteiru kedo,
Taro-also respects though
Taro-wa nanninka-no sensei-sika sonkeisiteinai.
Taro-TOP some-GEN teacher-only does.not.respect
"lit. Taro also respects *e*, but Taro only respects some teachers."

(6) b. #Taro-mo taitei-no sensei-o sonkeisiteiru kedo,
Taro-also most-GEN teacher-ACC respects though
Taro-wa nanninka-no sensei-sika sonkeisiteinai.
Taro-TOP some-GEN teacher-only does.not.respect
"Taro also respects most teachers, but Taro only respects some teachers."

By the same logic, the interpretations of null arguments with numeral quantifiers and with adverbial particles like *-sae* "even" are also considered to be involved with conversational implicature, but the relevant data cannot be listed here due to space limitations.

3. Implication

Saito (2017) explores the interaction between null arguments and quantified expressions (e.g., *wh*-phrases, exhaustive *dake* "only"), drawing a descriptive generalization that operator-variable relations resist being null. As Saito (2017:724, footnote 11) acknowledges, however, *taitei-no* "most" does not appear to fall within the generalization. There is a way out of this, however. That is, it is the case that quantified expressions including *taitei* avoid ellipsis/deletion, and the seemingly exceptional reading of *taitei* is induced with the help of conversational implicature independently of ellipsis/deletion.

4. Conclusion

The alleged quantificational reading of null arguments has, in light of cancellability, turned out to come from conversational implicature, but not ellipsis/deletion, and this implies that *taitei* "most" falls under Saito's (2017) generalization.

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On the Role of Adjacency in Morphophonological Changes.

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This paper focuses on the role of "Adjacency" in morphophonological alternations (Sato (1990), Nishihara and van de Weijer (2012)) as an alternative to using levels or strata as in Lexical Phonology (Kiparsky (1982)), using word boundaries (#) and morpheme boundaries (+).

Sato (1990) pointed out that some phonological changes are explained by appealing to the syntactic notion of "Adjacency". For instance, the [n] of the prefix in- assimilates to any following consonant (e.g., *impossible*, *irregular*, *incoherent*), while the [n] of un- does not (*unknown*, *unnecessary*, with geminate [nn], and no place assimilation in *unpopular*). This receives a straightforward explanation in the "adjacency" theory, as seen in (1):

(1) impatient vs. unpopular

affixation & assimilation (applied)

[in [patient] → [impatient]

affixation & assimilation (not applied)

[un [ϕ [popular]]] → [unpopular] (Sato 1990)

As seen in (1), since the [n] of in- is directly adjacent to the root, [in] is changed to [im] by assimilation rule, while there is an empty category that prevents this in [un] ϕ [popular].

The same structural approach explains the presence vs. absence of stress shift in derived words. Cf. the words *definitive* and *definiteness* in (2) (both from *definite*, with initial stress), with their morphological structure:

(2) [[deFInite] ive] ϕ]

[[DEFinite] ϕ [ness]]

Just like in the case of assimilation, if there is an empty position ϕ between the morphological constituents, no rule applies (resulting in absence of stress shift in *definiteness*), while if there is a closer connection between the constituent parts (as in *definitive*) stress shift applies (in other words, in the latter case, the two constituents are more likely to be treated as one stress domain).

In this presentation I consider some alternatives to the Adjacency approach to phonological and morphological structure outlined above. The rule of velar softening is formulated as follows: k → s / ___ + i

(3) electric [k] : electri **c** ity : [s]

With respect to this change, it is necessary to specify an internal boundary (+) between [k] and [i]. Otherwise, the velar softening would also apply in examples such as:

(4) "kill", "key", "kit" and "spook#y", "hawk#ish". (Hyman 1975)

I can explain (3) with adjacency as follows :

(4)[[electri [k]] ity] → [s]

On the other hand, "spook#y" and "hawk#ish" (Hyman (1975)), have a # boundary, so that the rule does not apply:

(5) [[spook] ϕ y]] , [[hawk] ϕ ish]

Words like "kill" and "key" also do not cause velar softening, and for these cases I suggest that these need a bracket] with adjacency. If the rule is formulated like this, with "no adjacency (condition)" and "bracket ( ]), it applies as follows:

(6) a. [[electri [k]] ity] → [s]

b. [[spook] ϕ y]] , [[hawk] ϕ ish]

Therefore, my new proposal is that we need both the "no adjacency (condition)" and the "bracket specification" ( ]) in the rule. In this way, in underived words the rule will not apply, since there is no bracket ( ]):

(7) [k ill], [k ey]

In sum, the velar softening alternation can be explained by invoking both an "adjacency condition" and a "bracket specification".

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Tense/aspect-agreement violations in Japanese L2 English

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Tense/aspect agreement has been of interest to SLA scholars for many years (e.g., Sugaya & Shirai, 2007). The current study investigates the acquisition of English past simple tense and present perfect aspect by Japanese second language (L2) learners. We examine sensitivity to tense/aspect mismatches between a fronted temporal adverbial (e.g., *Last year*) and a following inflected verb, as illustrated in (1) and (2).

(1) **Past simple: match**
a. Three days ago, Tom missed the bus to the main station.

Past simple: mismatch
b. * Since last year, Kate studied Dutch and German at Oxford University.

(2) **Present perfect: match**
a. Since last year, Kate has studied Dutch and German at Oxford University.

Present perfect: mismatch
b. * Three days ago, Tom has missed the bus to the main station.

(stimuli based on Roberts & Liszka, 2013)

Japanese marks past tense/perfective aspect with the suffix *−ta*, inducing consistent temporal interpretations regardless of the verb to which it attaches, but the imperfective marker *–te i-ru* prompts different interpretations depending on the lexical aspect of the verbal predicate it appears with (Ogihara, 1998). Thus, our research investigates whether Japanese L2 learners are equally capable of distinguishing matched and mismatched temporal adverbials with past simple tense (1) and present perfect aspect (2) in English, using both off-line and on-line measures.

We recruited 16 Japanese learners of English and 18 English native speakers. Participants completed a self-paced reading (SPR) task followed by an untimed acceptability judgment task (AJT). Five versions of the AJT were created, each with 24 test items and 26 distractors. The SPR task included four versions, each with 24 test items and 16 distractors. Preliminary analysis reveals that Japanese L2 learners process the past simple items on the SPR task in a manner consistent with their judgments on the AJT (Table 1, Figure 1). However, for present perfect items, they fail to distinguish match and mismatch conditions on the AJT but exhibit a processing cost only for the match condition on the SPR task (Table 2, Figure 2). We suggest that the performance differences between the Japanese L2 learners and native control group follows from L1 influence among the learners due to differences between L1 and L2 lexical semantics: Japanese L2 learners are insensitive to present perfect aspect as form and meaning align differently in their L1 and L2 (Gabriele, Martohardjono & McClure, 2005). We present the Japanese L2 learner results in the context of Lardiere's (2009) feature reassembly hypothesis.

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Table 1. Acceptability judgments for past simple conditions on the AJT

past simple (SD)	Match	Mismatch
NS controls	1.72 (0.8)	-1.10 (1.4)
Japanese L2 learners	1.27 (1.5)	-1.18 (1.2)

Table 2. Acceptability judgments for present perfect conditions on the AJT

present perfect (SD)	Match	Mismatch
NS controls	1.57 (1.0)	-1.44 (1.2)
Japanese L2 learners	1.06 (1.2)	0.85 (1.4)

Figure 1. Mean response time (RT) differences between conditions (*match* minus *mismatch*) for past simple items across 4 critical segments (see (1) above)

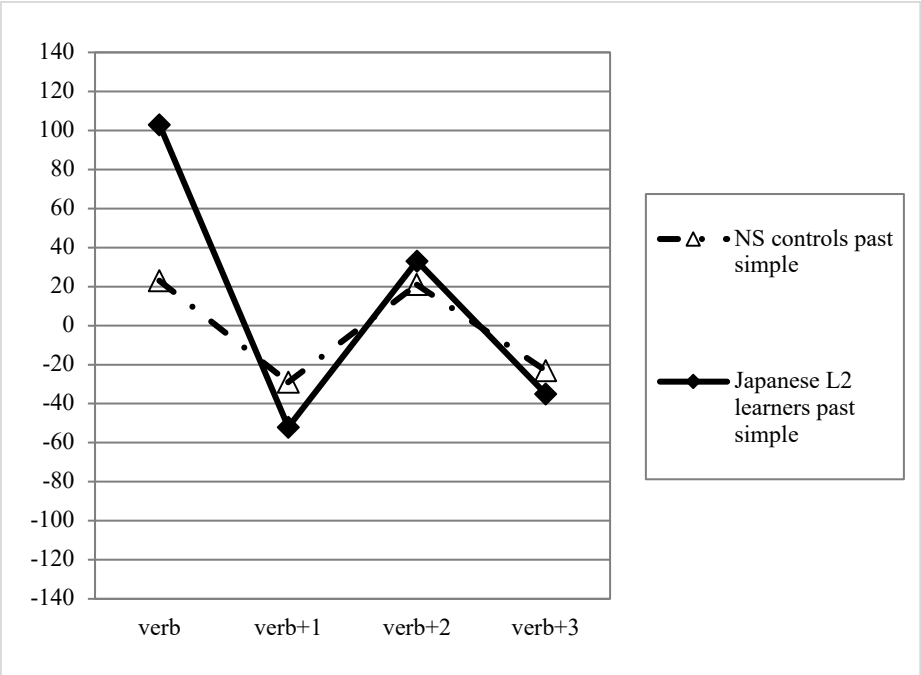
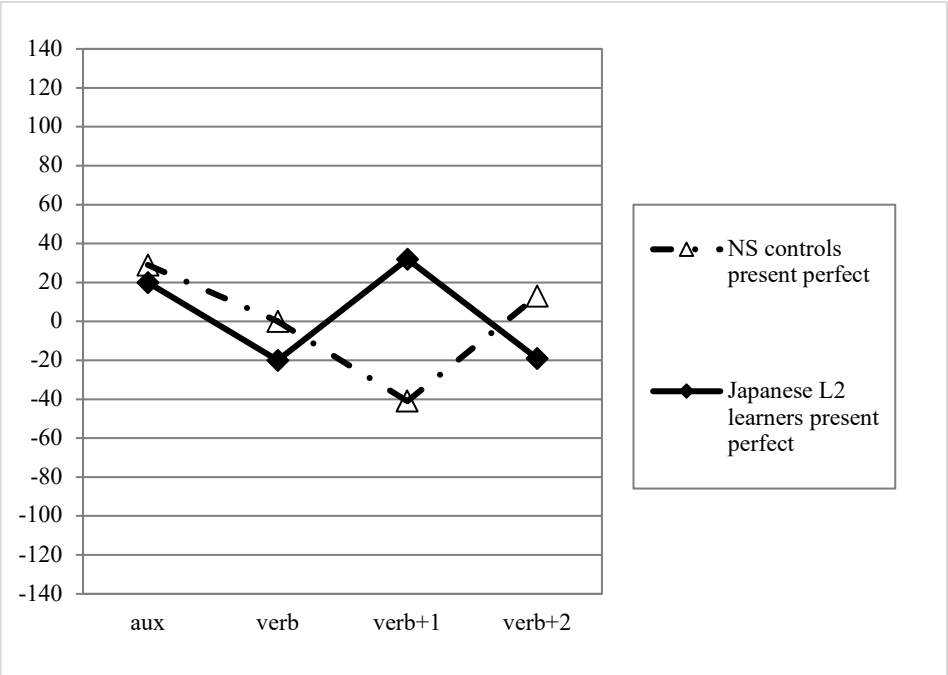


Figure 2. Mean response time (RT) differences between conditions (*match* minus *mismatch*) for present perfect items across 4 critical segments (see (2) above)



L2 learners: 5.1% = outliers, 67% accuracy on questions; NS controls: 2.2% = outliers, 84% accuracy on questions