2020 가을 공동국제학술대회

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Day 1

Friday, 16 October, 2020

Plenary Talk 1

Author: Andrew Moody

Title: Authenticity and Performativity in Pop Culture Englishes: Listening to The Beatles Perform Rhoticity

Session 1.

Semantics

Sense-based minimizers in English and Japanese: Speaker's experience and classification of scales

Osamu Sawada (Kobe University)

Introduction: The English minimizer *faintly* and the Japanese minimizer *kasukani* 'faintly' are similar to typical minimizers, such as the English *a bit* or the Japanese *sukoshi* 'a bit' in that they semantically represent a low degree. However, *faintly* and *kasukani* 'faintly' are quite different from regular minimizers in terms of distribution patterns. Like typical minimizers, *faintly* and *kasukani* can co-occur with gradable predicates that involve taste or smell, as in (1) and (2):

(1) a. This green tea is {faintly/a bit} sweet.
b. Kono sake-wa {kasukani/sukoshi} amai.
This sake-TOP faintly /a bit sweet
'This sake is faintly/a bit sweet.'

(2) a. It smells {faintly/a bit} of mint.
b. Minto-ga {kasukani/sukoshi} kaoru.
Mint-NOM faintly /a bit smell
'It smells faintly/a bit of mint.'

However, unlike *a bit/sukoshi* 'a bit', *faintly/kasukani* 'faintly' cannot co-occur with gradable predicates, such as *expensive/takai* 'expensive' or *boring/tsumaranai* 'boring', as shown in (3) and (4):

(3) a. This coffee is {#faintly/a bit} expensive.
b. Kono koohii-wa {#kasukani/sukoshi} takai.
This coffee-TOP faintly /a bit expensive
'This coffee is *faintly/a bit expensive.'

(4) a. This book is {#faintly/a bit} boring.
b. Kono hon-wa {#kasukani/sukoshi} tsumaranai.
This book-TOP faintly /a bit boring
'This nail is *faintly/a bit bent.'

Intuitively, *faintly* and *kasukani* can only be used in situations where the speaker measures degree based on his or her own senses.

One puzzling point is that *kasukani* and *faintly* cannot naturally combine with the gradable predicates, such as *delicious/oishii* 'delicious' or *noisy/urusai* 'noisy' despite the fact that they are related to sense (taste/hearing), as shown in (5) and (6) [Note: *Delicious/oishii* 'delicious' are so-called predicate of personal taste, which requires direct sensory experience (e.g., Pearson 2013; Ninan 2014; Kennedy and Willer 2019)]:

(5) a. #This cake is faintly delicious.
b. # Kono keeki-wa kasukani oishii.
This cake-TOP faintly delicious
'This cake is faintly delicious.'

(6) a. # This room is faintly noisy.
(cf., The sound of the chapel bell is faintly heard.)
b. # Kono heya-wa kasukani urusai.
This room-TOP faintly noisy
'This room is faintly noisy.'
(cf., *Oto-ga kasukani kiko-e-ru* 'the sound is faintly heard.)

Analysis: How can we explain these facts? I argue that, unlike regular minimizers such as *a bit/sukoshi* 'a bit', *faintly* and *kasukani* are sense-based minimizers that measure degree based on the speaker's sense from a state of zero (or a minimum standard). More specifically, I propose that *faintly* and *kasukani* are mixed content, in that they not only have an at-issue scalar meaning, but also a conventional implicture (Grice 1975; Potts 2005; McCready 2010; Gutzmann 2011; Sawada 2018) inside the lexical items:

(7) *Faintly/kasukani* (i) denotes that the degree of a target *x* is slightly greater than a minimum standard on the scale of *G*, and (ii) conventionally implicates that a speaker perceives a degree based on a speaker's sense of sight, smell, taste, or hearing.

This analysis naturally explains the data in (1–6). Examples (3) and (4), with *faintly/kasukani*, are odd because they do not satisfy the second component of (7). [Note that the second component is conventional implicature, in that its meaning is not part of "what is said" (Grice 1975). This is supported by the fact that it is impossible to reject the second part (experiential meaning) by saying, "No, that's false."] As for (5) and (6), *faintly/kasukani* cannot be combined with *delicious* or *noisy* because these adjectives are relative gradable adjectives that posit a contextual standard (norm) and cannot measure degrees from a minimum point. Whether something is tasty or noisy is determined by a contextually

determined norm. By contrast, *kasukani/faintly* are fine with the adjectives *sweet/amai* or *red/akai*, because they are absolute adjectives that posit a zero point.

Conclusion: This paper shows that, unlike typical minimizers such as English *slightly*/*a bit* and Japanese *sukoshi/chotto* 'a bit' (e.g., Kennedy 2007; Kagan and Alexeyenko 2011; Sawada 2011, 2018; Bogal-Allbritten 2012; Bylinina 2012; Sassoon 2012; Solt 2012), *faintly/kasukani* has more complex meanings and restricted distribution patterns. I argue that *faintly/kasukani* conventionally implies that a speaker perceives a given degree as "slightly greater than zero," based on his/her own sense (e.g., the senses of sight, smell, taste, etc.), and this semantic characteristic makes *faintly/kasukani* possible to combine only with a sense-related absolute gradable predicate that has a zero point. This paper provides a new perspective for the semantic variation of minimizers.

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Comparison of Spatial Demonstratives “zhe”, “na”, “this” and “that” in Discourse of TV Talk Shows

Abstract

Type of Presentation: Short Presentation
Area of Research: Pragmatics, Discourse Analysis

The current study presents an analysis of the use of spatial demonstratives, namely the four noun-modifying and the pronominal words, *zhe, na* in Chinese, and *this, that* in English (with their plural forms). Demonstratives are prevalent in all languages with at least two deictically contrastive features: proximal and distal (Diessel, 1999), as expressed by the dichotomous pairs *zhe / this* and *na / that* in the two languages. The four demonstratives have long been the focus of studies covering areas including pragmatics, semantics and discourse analysis. However, there is relatively limited research that looks at and compares the abovementioned spatial demonstratives from different dimensions. In addition, most research about the four demonstratives surround the analysis of their use in a written / corpora discourse, or comparative studies between the Chinese / English translation. Studies in the field of spoken discourse, especially in modern mass media culture, are underdeveloped. The current study aims at analysing the features and functions of the four demonstratives in spoken discourse found in contemporary TV talk shows via 1. the context they refer to, 2. the deictic/ quasi-deictic (see Kibrik & Prozorova, 2007)/ non-deictic type and their corresponding functions, 3. information status and 4. the physical / psychological proximal / distal feature. Altogether, 20 episodes of four different TV talk shows from four different regions (US, UK, mainland China, and Taiwan) were analysed for the use of the four spatial demonstratives. The findings showed a proportion between *zhe-na* and *this-that* use (i.e. *zhe* is used far more often than *na* in Chinese, while *that* is used slightly more often than *this* in English) that is in line with other similar studies. More data that had not been reported in previous studies was discovered. The current study spots a gap in the research field by looking into how the multi-dimensional space presented in TV talk shows, as well as a multi-modal analysis bring a difference in studies in the area of pragmatics and discourse analysis of the four spatial demonstratives.

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Exploring the Cognitve Mechanism of Denomininalization: From the Perspective of Conceptual Metaphor and Metonymy Interaction

Abstract

Denominal verbs are well-rooted in English language as a word-formation process, which is characterized by transformation from a noun (parent noun) to a verb without adding inflectional markers, and entail the use of metaphor and metonymy. Referring to conceptual metaphor and metonymy theory, this research aims to delineate the cognitive mechanism behind denominalization by means of metaphor-metonymy conceptual mappings. For this end, the researcher conducted an experiment on 30 English major students in a university of China, which served to reveal how they understood and utilized denominal verbs, as well as their sensitiveness and conceptualization towards denominalization. The results showed that (1) participants were generally aware of the existence of the established denominal verbs, with some denominals being recognized more while others less. The varying levels of recognition implied different implementation of metaphor and metonymy, (2) participants entertained certain semantic and cognitive patterns in their cognition for different categories of denominals. Some of them included the application of metaphor and metonymy, while others only specified metonymy, (3) the cognitive mechanism behind different categories of denominals can be illustrated by proposed metaphor-metonymy conceptual models, and the stressed aspect of a parent noun in participants' cognition determines which model a denominal suits. This study analyzes denominals from a cognitive perspective, identifies the metaphor and metonymy interaction underlying denominals, and explicates the predictability and productivity of denominalization.

Session 2.

Cognitive Linguistics

Perceptions of the effect of an English course on English Self-efficacy and English Proficiency: Voices of International Students in China

Abstract

The English language has become an essential means for communication and studies for international students globally. With the increasing number of international students trooping to China to study diverse courses which is taught in the English medium, there is a need to address challenges faced by international students from non-native English speaking countries. The study adopted an embedded mixed-method approach where face-to-face interviews and focus group discussions were conducted on freshmen international students taking English for Academic Purposes (EAP) in a specific faculty of a university in China. The interviews were supplemented by the Questionnaire of English Self-Efficacy (QESE) to measure their perceived English self-efficacy after the course. An online questionnaire on English Course Evaluation (ECE) was used to measure the students' assessment of the course. The findings of the study offer insights into the effect of the intervention, challenges faced by students during the course, and suggestions on things to consider during the implementation of English courses for non-native English students in the future.

Who is that guy?: A cognitive linguistic perspective on "Don't be that guy"

Sato, Rana (The University of Tokyo)

A growing number of native speakers of English use *Don't be that guy* to convey a message that may appear quite different from what it literally means. In (1), for example, speaker B directs speaker A to stop doing what he himself is doing (i.e. showing off on Twitter). This example shows that *Don't be that guy*, when used in this idiomatic way, is not intended to prohibit the addressee from being the person referred to by *that guy.* So far, however, no linguistic studies have been conducted to find out exactly what it means and why it means what it does, except for a few remarks of Colston (2015), who describes it as "a directive for someone to not behave like a particular person or type of person."

(1) A: Hey, Stewie, what do you think about this tweet?
B: Oh, **don't be that guy**. (*Family Guy*, S16, E6, The D in Apartment 23)

I describe this novel use and consider from the perspective of cognitive linguistics how *that guy* in particular contributes to the idiomatic meaning of the whole expression.

The use of *that guy* in this idiom represents a kind of metonymy (Taylor 2003: 7.1), in the sense that its referent serves as a reference point via which the addressee is expected to infer what the speaker is telling them not to do. Consequently, what this idiom actually does is to tell the addressee not to do the kind of act strongly associated with the (type of) person *that guy* refers to (cf. Colston 2015: 290). The person directly designated by *that guy* is used as a representative of people who misbehave in a particular way. Intriguingly, even though you don't know a specific person or a specific type of person, you can use *Don't be that guy* as if the person is real and familiar. That fact suggests that *that guy* can be thought of as a kind of virtual instance (cf. Langacker 2008: 36). Moreover, *Don't be that guy* usually serves to embarrass the addressee (generally in front of others), in addition to functioning as a prohibition. Put differently, this expression is used to tell the addressee not to do something by warning them that doing it will earn them a bad reputation, one that derives from the kind of person the referent of *that guy* is who does the same thing.

To conclude, I would like to answer the question of who *that guy* is. Using *that guy* draws the addressee's attention to certain negative personality traits of the (type of) person *that guy* refers to. Specifically, *that guy* refers to a virtual instance conjured up to cast the prohibited action in a negative light.

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On Hedge-Adjacent Adjectives

HAGISAWA Daiki (Kobe City University of Foreign Studies)

The literal sense of *adjacent* represents spatial proximity ("next to" or "near"), but it has recently acquired a novel, non-spatial usage as in *we're god-adjacent, but not all-caps gods* (SOAP, 2012). The present study describes what motivated this extension and characterizes part of its function as a hedge.

Spatial *adjacent* mostly occurs as a self-standing adjective, but occasionally it figures as a right-hand element of a compound. The novel usage at issue is found precisely in this pattern (i.e. X-*adjacent*), meaning roughly "not exactly, but akin to X" as in (2).

(1) The West Texas Music Hall, an ***airport-adjacent*** palace of twang [...] (COHA, 1992)
(2) As Sara put it, stealthing [= nonconsensual condom removal] is "***rape-adjacent***."
(Brodsky 2017: 188)

Bromwich (2019), drawing on comments from linguists and users of this expression, described its characteristics as follows: (a) recent usage, began to be noticeably frequent in the early 2010s, (b) has "nifty sheen" and sounds "formal and technical," (c) probably originated with "real-estate talk," and (d) used by start-up founders as well.

Some of the above derive straightforwardly from the features of *adjacent*. Since it can, unlike synonymous *adjoining* or *contiguous*, be used when things are close but not touching (Gilman 1989, Peters 2004). In addition, due to its Romance origin, the word sounds "nifty." Hence *adjacent* is conveniently employed to equivocate. In addition, English abounds in expressions motivated by the conceptual metaphor SPATIAL PROXIMITY FOR PROPER CATEGORIZATION: e.g., *near bear*, *close to perfect*, *far from happy*.

These factors conspire to provide sufficient motivation for non-spatial use of *adjacent*, making it an elegant and/or playful way of speaking non-assertively. Put otherwise, it functions as a **hedge**. Its focus depends on the context. In the case of *we're god-adjacent, but not all-caps god*, it clearly means "almost but not quite." *Rape-adjacent* in (2), on the other hand, construes stealthing as "not quite but almost" a rape.

Adjacent has extended its usage so much that it now has even a non-hedge use, denoting mere "relatedness" or "topic" as does the preposition *about*. The novel usage of *adjacent* is, thus, not a genuine hedge *per se*, but "hedge-adjacent."

(3) Across social media, people are trading recommendations for their favorite ***pandemic-adjacent*** films, shows and books. (*Washington Post*, 2020 March 6)

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Session 3.

Pragmatics

A Disciplinary-based Analysis of Hedges in Dissertations of Korean EFL Learners and English Speakers: English Education vs Biology

(Oral presentation, Pragmatics/Discourse Analysis)

The appropriate use of hedges of uncertainty as well as boosters of confidence has recently turned out to be critical for one's argument or claim of new discoveries to be accepted publicly in academic writing conventions (Salager-Meyer 1994, Hyland 1998, among others). In the area of language education, L2 learners like Korean EFL learners (KS) have experienced indescribable difficulties in integrating English hedging and booster devices into their academic writing since not only the L2 writing conventions in academic fields are different from the L1 conventions of writing but also L2 teachers simply believed both hedges and boosters are a hindrance to articulating opinions in discourse and intentionally neglected to explain the varied functions of hedges (Hyland, 1998).

In this vein, dissertations are one of the academic genres that have not been systematically examined yet to understand how Korean EFL learners use English hedging and booster devices to communicate their sophisticated scientific arguments with the audiences. This study examined the different uses of hedges and boosters between KS and ES in two scientific fields, English Education and Biology. We employed both quantitative and qualitative methods to find out how the KS group uses English hedges and boosters differently from the ES counterpart and makes their assertions in dissertation writing. Adjusting Salager-Meyer's (1994) taxonomy to our study of dissertations, we analyzed the discussion sections of 120 doctoral dissertations in two fields, 60 by ES and 60 by KS.

The results of the comparison showed that there was no overall difference between the ES and the KS in both the categories of hedges and boosters. In interdisciplinary comparisons, however, there were differences; regarding hedges, the KS used them more frequently than the ES did in English Education while the ES used them more frequently than the KS did in Biology. In the use of boosters, the same pattern was found; the KS used more boosters than the ES did in English Education while the ES used more boosters than the KS did in Biology. We explain these mixed results in two disciplines by calling in what Grice (1975) called 'maxim clash' where an author comes to the violation of a maxim (Manner) to preserve a more competent maxim (Quality), which we propose as the key maxim to be observed in the writing conventions, especially, of hard sciences. Qualitative analysis of the hedged used in each discipline also revealed a difference between the language groups, KS and ES: the lexical repertoires and variations in the KS of English Education were not so diverse as those in the ES counterpart though the first group outnumbered the second in the frequency of hedges and boosters.

From the perspective of L2 education, the findings suggest that L2 learners need a clearer understanding of the importance and varied functions of such meta-discourse markers as hedges and boosters in distinctive academic writing conventions of different scientific fields.

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Some notes on the emergence of *full stop* as a pragmatic marker in the history of British English

Type of presentation: Oral
Area of research: Historical pragmatics, discourse analysis, grammaticalization

This study investigates the emergence of the pragmatic maker (PM) usage of *full stop* at sentence-final position in the history of British English. Studies on the usage of punctuation marks trace back to the sixteenth century (Partridge 1964: 187). However, since punctuation marks (including *full stop* and *period*) are subject to great individual variations, no comprehensive research on the evolution of the PM use of *full stop* seems to have been reported thus far (e.g. Jucker and Taavitsainen 2018).

The results of the corpus-based surveys are as follows. At the end of the sixteenth century, *(full) stop* began its life as a "single point or dot used to mark this; a period, full point" according to *The Oxford English Dictionary* (*OED*, s.v. *stop* n^2 IV Grammar 18). In the early seventeenth century, it comes to indicate a complete halt, which facilitates the growth of idiomatic or collocational expressions as in (1). Elements in focus are underlined.

(1) After we had walked some time, I <u>made a full stop</u> with my Face towards the West.
(1711 Budgell Spect. No. 77 ¶1; *OED*)

In the Late Modern English period (CLMET 3.0 and CEN), a variety of examples with *full stop* such as *put a full stop, come to a full stop,* and *brought to a full stop* began to increase in frequency. The meaning of complete stoppage conveyed in these phrases may have resulted in the creation of the PM usage of *full stop* in the early twentieth century as in (2). More recently (BYU-BNC), a kind of imperative use of *full stop* can be witnessed as in (3). Namely, *full stop* has grammaticalized from a punctuation mark to a pragmatic marker. Similar survey results can be obtained from *Hansard Corpus*.

(2) 'But,' argued Petunia, 'I said soldiers' wives are usually nice...' 'And I,' said Aunt Jane, 'answered, "yes. <u>Full stop</u>. Mrs. So-and-so is very nice."'
(1916 M.C.E. Wemyss *Petunia* xv. 143: *OED* online)

(3) Speaker 1: … another drink you'll be dead in six month.
Speaker 2: Mhm.
Speaker 1: <u>Full stop</u>, there's forty milligrams of (pause) valium.
(KDX, S conv: BYU-BNC)

On the other hand, in the latest media discourse such as SNS and text messages, speakers of English tend to abstain from the use of *full stop* as a punctuation mark (.) at sentence-final position, because it is recognized as a marker of insincerity and hostility (e.g. Houghton et al. 2018): the dimensionless space of *full stop* conveys a socio-pragmatic implication; it serves a piece of evidence for 'digraphia' (Crystal 2015: 329), albeit depending on types of register.

Punctuation marks has been diversified in meaning and function in tandem with the development of new discourse media. Lawler (2006: 290) states that punctuation "is still in the process of being standardized, and may not in fact ever achieve standardization." The history of *full stop* sets a good example for the view.

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Corpora

BYU-BNC=*The British National Corpus* 1980s-1993, Brigham Young University, U.S.A. (Mark Davies)

CEN=*The Corpus of English Novels* 1881-1922. (Hendrik De Smet) British novels are used for the survey.

CLMET 3.0=*The Corpus of Late Modern English Texts*, version 3.0. (Hendrik De Smet, Hans-Jürgen Diller and Jukka Tyrkkö)

Hansard Corpus 1803-2005. Brigham Young University, U.S.A. (Mark Davies)

Plenary Talk 2

Short and sweet:
What we can learn from 2400 English clippings

Martin Hilpert

This talk addresses the morphological word formation process that is known as clipping. In English, that process yields shortened word forms such as *lab* (<< *laboratory*), *exam* (<< *examination*), or *gator* (<< alligator). Existing work (Davy 2000, Durkin 2009, Haspelmath & Sims 2010, Don 2014) characterizes clipping as a highly variable phenomenon, arguing that it is difficult to predict how a given source word will be shortened. Recently however, the view that clipping is unsystematic or unpredictable has been empirically challenged (Lappe 2007, Jamet 2009, Berg 2011, Alber & Arndt-Lappe 2012, Arndt-Lappe 2018). This talk continues that line of research and presents new empirical insights.

Specifically, the talk will report on new results that have been obtained on the basis of a newly-compiled large database of English clippings. Drawing on several sources of data, a collection of 2400 English clippings has been annotated for variables that include phonological, morphological, syntactic, and semantic distinctions, along with corpus-based measurements of type and token frequency as well as distribution.

Earlier research on clippings has emphasized the importance of factors such as the principle of least effort (Zipf 1949), the recoverability of the source word (Tournier 1985), and phonological factors such as stress and syllable structure (Lappe 2007). While the individual influence of these factors on clipping has been recognized, their interaction and their relative importance remains to be fully understood. Addressing this research gap, this talk will present a multivariate analysis of factors that reveal systematic patterns that guide the formation of clippings. On the basis of such a multivariate analysis, it will be discussed what underlying factors are implicated in the clipping process and how these factors interact. The overall conclusion is that clipping has been unjustly characterized as an unpredictable word formation process. Not only are clippings formed on the basis of systematic patterns, but these patterns also reflect functional pressures that act on the speaker and the hearer.

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Plenary Talk 3

EMBEDDED GAPPING: THE ROLE OF FACTIVITY AND COMPLEMENTIZER

Anne Abeillé (U. Paris & LLF), Gabriela Bîlbîie (U. Bucharest), Israel de la Fuente (U. Lille & STL)

It is usually assumed (Hankamer 1979, Neijt 1979, Johnson 2009) that gapping differs from other kinds of ellipsis in banning embedding (No Embedding Constraint) (1). However, Weir (2014) suggests that embedding gapping may depend on the matrix verb (2). Counter-examples can also be found in comparatives (3) and some adjunct clauses (4):

(1) *Alfonso stole the emeralds, and I think [that Mugsy the pearls]. (Hankamer 1979)

(2) John ate oysters...
a. and I { ?think | ?believe | ??hope | suspect | ?was told | imagine} Mary swordfish.
b. and I { ?*found out | *remember | *deny | ?*know} Mary swordfish.
c. and I {*am proud | *am angry | *am surprised} Mary swordfish. (Weir 2014)

(3) Robin can't speak French better than Leslie German. (Park et al. 2019)

(4) a. Truth is YOU will be in a position to hire ME, before I, YOU. (Park et al. 2017)
b. No doubt THEY will find US, before WE, THEM. (Park et al. 2017)

We show, based on 3 acceptability judgment tasks for English, that two constraints seem to be at work: on the semantic side, non-factive verbs embed more easily than factive ones (Kiparsky & Kiparsky 1970, Karttunen 1971), independently of ellipsis; on the syntactic side, no complementizer (with non-factive verbs) embeds more easily than a complementizer (Jaeger 2006, 2010).

To test the semantic constraint, we ran a first experiment using a 2x3 design (gapping, embedding-non-factive, embedding-factive):

(4) a. [±gapping, +embed, +factive] At the bar, Paul ordered a beer and **it bothers me that** John (ordered) a whisky.
b. [±gapping, +embed, -factive] At the bar, Paul ordered a beer and **it seems that** John (ordered) a whisky.
c. [±gapping, –embed] At the bar, Paul ordered a beer and John (ordered) a whisky.

The results show a gapping penalty (compared with full clauses) and an interaction between gapping and embedding (mean z-score for embedded gapping –0.8). Moreover, factivity is significant: embedded clauses under a non-factive verb are more acceptable than under a factive verb.

To test the syntactic constraint, we ran two further experiments, one for non-factive, one for factive verbs, using a 2x2 design (±gapping, ±*that*):

(5) a. [±factive,±gapping,+ *that*] At the corner shop, Peter stole cigarettes and **I think/worry that** Larry (stole) chocolates.
b. [±factive,±gapping, –*that*] At the corner shop, Peter stole cigarettes and **I think/worry** Larry (stole) chocolates.

The results show a significant effect of complementizer, a significant effect of gapping and a significant interaction between the two. The absence of complementizer renders embedded gapping more acceptable.

We conclude that the No Embedding Constraint on gapping cannot be maintained. Gapping is affected not only by the semantic class of the embedding predicate, as in other languages (Bîlbîie & de la Fuente 2019), but also by the presence/absence of the complementizer. The difficulty of coordinating a simple clause and a complex clause may result from a more general parallelism constraint on coordination (Frazier & Clifton 2000) and the further penalty on factive verbs may come from their non-assertive nature (Hooper 1974) and/or from the QUD-congruence constraint (Ginzburg 2012). This is not compatible with Johnson 2009's small-conjunct analysis, and we show how it is compatible with a fragment-based analysis of the gapped clause, as has been proposed in HPSG (Abeillé et al 2014, Park et al. 2019).

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Day 2

Saturday, 17 October, 2020

Session 4.

Syntax

‘So’ as a TP-substituting propositional anaphor

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In recent analyses of the ‘that’ clause that attitude verbs like ‘claim’ take as a complement, Kratzer (2006) and Moulton (2015) suggest the view that the ‘that’ clause is a predicate, while its anaphoric pro-form ‘so’ is an argument. This suggestion is based on the following contrast:

(1) a. I believe/claim/am afraid so
b. my belief/claim/fear that pigs fly
c. *my belief/claim/fear so

The ‘that’ clause in (1b) is fine with a non-argument taking noun (Grimshaw, 1990), but its anaphoric form is not, which leads Moulton (2015) to conclude that the NP-internal ‘that’ clause is not an argument, and by extension, the VP-internal one is not either.

In this presentation, we first argue that the prohibition against ‘so’ in NP internal position is accounted for by the thesis that ‘so’ is a TP-substituting propositional anaphor, thus the adjacent null complementizer needing to be morphologically supported along the line proposed by Bošković and Lasnik (2003). Simply put, the noun in (1c) cannot host the null Comp. Likewise, ‘so’ replacing the null-‘that’ clause in subject position is not allowed. We then show that ‘so’ can undergo displacement to pre-subject or pre-verbal positions, where the null Comp is known not to be licensed; this means there is an asymmetry in movement between a TP and its anaphoric form ‘so’.

We then argue that the ‘that’ clause that attitude verbs like ‘claim’ take as a complement is not a predicate, but an argument. One reason for thinking that the ‘that’ clause is a referential expression is based on what is called the argument from valid inferences, as in (2):

(2) Aaron believes <u>everything said by Marc about Giannis</u>.
Wes said <u>that Giannis will be named MVP</u>. Marc also said <u>so</u>.
Aaron believes <u>that Giannis will be named MVP</u>.

In (2), the parity holds between the three elements such as the DP ‘everything’, the CP-‘that’ clause, and the TP-substituting ‘so’, as they each refers to a proposition.

On the Ambiguity of Non-Referential *It*

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1 Introduction: It is well-known that there are two types of *it*: referential *it* and non-referential *it*. In (1) *it* refers back to *a hat*, but it is hard to say what *it* refers to in (2a-b). Hence, the former is referred to as referential *it*, while the latter as non-referential *it*.

(1) John bought a hat. It is very beautiful.
(2) a. It is raining.
b. Rumor has it that Mary will marry John.

This paper claims that non-referential *it* is not homogenous but consists of three types: Davidsonian *it*, anaphoric *it*, and expletive *it*.

2 *It* as an event argument: Davidson (1967) proposes that predicates have an event argument in addition to traditional arguments like Agent. This paper shows that the Davidsonian argument can be overtly realized as *it*. In (2a), for instance, the predicate *rain* is predicated of the event argument *it*, which denotes the situation or event that takes place.

This approach sheds light on many puzzling phenomena. First, it explains why *it* can be a controller for PRO (Chomsky 1981). This is not surprising if *it* is an event argument.

(3) It sometimes rains after PRO snowing.

Second, weather *it* is never elided although the subject must be elided in *ing*-participles if it is recoverable. This follows if *it* is an event argument.

(4) (*He$_i$/Him$_i$) being sick, John$_i$ didn't go on a picnic.
(5) *(It) being fine, John went on a picnic.

3 *It* as an Anaphor: In (6a-b), *it* must be accompanied by a clause.

(6) See to it that John is dishonest.

I propose that expletive object *it* has an unvalued reference feature. In (7), *has* c-selects a DP and assigns a Proposition role. This is a contradictory demand in that a DP usually cannot denote a proposition. For instance, (8) is ill-formed because *it* cannot denote a proposition if it is used as a deictic pronoun.

(7) Rumor has *(it) that Mary would fire John .
(8) *Rumor has it.

This dilemma can be resolved by utilizing non-referential *it* with [uReference]. Non-referential *it$_{[uReference]}$* can denote a proposition via Agree with a phase-internal clause. In (9a), the unvalued reference feature of *it* is valuated via Agree with the CP. Hence, it can satisfy the requirement that *has* s-select a proposition.

(9) a. [$_{VP}$ has$_{(P)}$ it$_{(uReference)}$]: Agree
c. [$_{VP}$ [$_{VP}$ has$_{(P)}$ it$_{(proposition\ 1)}$] [$_{CP(P1)}$ that …]]]

4 *It* as an Expletive: Some instances of non-referential *it* have no referential value. This is a case where *it* is inserted as a last resort. In (10), the *that*-clause has no phi-features.

(10) It is said that he has taken bribes and that he has embezzled company funds.

Accordingly, the string in (11a) cannot be labeled (Chomsky 2015). So *it* is inserted to resolve the problem of labeling failure.

(11) a. T be said [that ...]: *It*-Insertion
b. it T be said [that ...]

5 Extension to German *Es*: *Es*, which is the German counterpart of the English *it*, is also ambiguous between referential *es* and non-referential *es*. This paper shows that non-referential *es*, just like *it*, can be classified into three types: Davidsonian *es*, anaphoric *es*, and expletive *es*. It is unclear what *es* refers to in the weather-construction in (12), the passive in (13), and the dummy object construction in (14). So it can be said that the three constructions contain non-referential *es*.

(12) Es regnete. (Weather-construction)
It rained
'It rained'
(13) Es wurde Gestern getanzt. (Passive)
It was yesterday danced
'There was dancing yesterday'
(14) weil Peter es bedauert, dass er krank ist (Dummy object construction)
because Peter it regrets that he ill is
‘because Peter regrets that he is ill’

The three constructions display a different pattern with regard to the distribution of *es*: *es* must be obligatorily present in weather-constructions, but it must be absent in passives when the sentence-initial position is occupied by a Topic Phase, and it is optionally present in the object position.

(15) Gestern regnete *(es)
Yesterday rained *(it)
'Yesterday it rained'
(16) Gestern wurde (*es) getanzt
Yesterday was (*it) danced
'There was dancing yesterday'
(17) weil Peter (es) bedauert, dass er krank ist
because Peter (it) regrets that he ill is
‘because Peter regrets that he is ill’

The main claim made in this paper is that the distribution of *es* follows if it is an event argument in weather-constructions and middles, it is an expletive in passives, and it is an anaphor in the object position.

6 Conclusion: To conclude, there are three types of non-referential *it*: Davidsonian *it*, anaphoric *it*, and expletive *it*, and German *es* can be analyzed in the same way.

On the Category Mismatch Asymmetry in English VP ellipsis

This paper primarily aims to explain the asymmetry of category mismatch that is found in English VP-ellipsis and to argue that the simple set-theoretic inclusion (or containment) comparison between the antecedent phrase (AP) and the elided phrase (EP) is neither sufficient nor necessary to deal with the mismatch in ellipsis. To begin with, the reason is explored for why the antecedent noun triggers VP-ellipsis in the subsequent clause, while the antecedent verb rarely triggers NP-ellipsis in the subsequent clause (Sato 2018). Representative examples are given below:

(1) a. We should suggest to her that she officially appoint us as a committee and invite faculty *participation*. They won't <$_{VP}$ participate>, of course.
b. Mubarak s *survival* is impossible to predict and, even if he does <$_{VP}$ survive>, his plan to make his son his heir apparent is now in serious jeopardy. (Miller and Hemforth 2014)
c. The media treated him like a convict before the judge actually did <$_{VP}$ convict>. (Sato 2018)

(2) a. ??(You must) *graduate* before we end up treating you like one <$_{NP}$ graduate>. (Sato 2018)
b. ??Because the police have much evidence to *convict*, they escorted one <$_{NP}$ convict> to London.

To be short, why is N to VP-ellipsis more frequent than V to NP-ellipsis? In (1) the noun *participation, survival,* and *convict* trigger VP-ellipsis in the subsequent clause, but in (2) the verb *graduate* and *convict* do not trigger NP-ellipsis. If category mismatch can be allowed in VP-ellipsis as in (1), where does this difference with (2) come from? This paper looks for a syntactic answer to the question in the dynamicity of phase theory (Bošković 2014, den Dikken 2007, 2017). In Sato's (2018) word-based approach to category mismatch in VP ellipsis, the most important factor to be considered is the size of structure. Sato's (2018) solution in terms of "containment" is of course a consideration of size between antecedent and elided structures (also see Aelbrecht 2020 and Aelbrecht and Harwood 2015). If the antecedent is bigger than the elided portion, no problem arises for ellipsis. If the antecedent is smaller than the elided portion, it will bring about problems. This is due to recoverability issues. If the elided phrase has information that is not found in the antecedent, how can that information be recovered? The real question is whether the size is really the only thing to be considered for the recovery of elided information. Here are some counterexamples that run afoul of the simple premise that size matters.

(3) a. **Moby Dick* was being discussed and *War and Peace* was being _ too
b. *Moby Dick* was discussed and *War and Peace* was _ too

(3b) is understandable but why is (3a) bad? The antecedent and the elided part are structurally the same. (3a) is not explained by a set-theoretic consideration alone since AP is the same as the EP.

This paper proposes that category mismatch in VP-ellipsis can be handled under the non-rigid phase-based assumptions. For a proper morphological derivation, the root notation (√) is adopted to denote the lexeme status of a lexical category. √ refers to a category neutral lexeme which will be realized as a surface category at a relevant point of derivation. Consider below:

(4) a. During the recent crisis, the government's *survival* was surprising to many observers. #It is unclear just how they did.
b. The fact of his *resignation* is not in dispute. #The question is why he did.

The lexeme √SURVIVE will be realized either as *survive* as a verb or as *survival* as a noun. To take care of the idea that only nouns with concealed polar interrogation can trigger VP-ellipsis (Miller and Hemforth 2014), PolP is located above VP in the second conjunct to carry polar properties. We have precedents of Pol head: ∑ head by Laka (1990) or Pol head by Culicover (1992). If polarity is not involved, PolP is not needed because Pol is for a (concealed) *yes/no* question. In this regard, if the nominal antecedent is not understood as a polar question, there is no PolP in the succeeding clause. The relevant part of the representation of (4) would have the following:

(5) a. … and [$_{CP}$ [$_{TP}$ [$_{PolP}$ [$_{VP}$ …
b. … and [$_{CP}$ [$_{TP}$ [$_{VP}$ …

Under the dynamic definition of phases, a phase and the complement of its head, but not the complement of a complement, are eligible for ellipsis. VP in the second clause can be elided if the clause has PolP because the VP counts as the complement of PolP, which is a phase by definition. In contrast, VP in the second clause cannot elided without PolP, since it is not a complement but the complement of a

complement of a phase. In other words, VP is the complement of T in that CP is a phase and TP is its complement and VP is the complement of T. This explains why VP ellipsis is not possible when the non-polar concealed questions of nominals are a antecedent. PolP is a phase in that it carries polar properties of the embedded CP and Pol head has dependency to the lower V head. In (5a) VP is the complement of PolP and therefore is eligible for ellipsis. In (5b) on the other hand, VP is the complement of CP, which is a phase by definition, is eligible for ellipsis as desired.

Regarding the opposite direction, the relevant examples are reproduced below (Sato 2018):

(6) a. I saw Janet's picture of her cat and Jack saw Julie's.
b. I saw Janet's beautiful picture of her cat and Jack saw Julie's ugly one.

(7) He applied to [$_{V}$ patent] his five inventions but was only awarded three <$_{NP}$ patents>.

Avoiding the problem of regarding the pronoun *one* as a number head, differently from Sato's analysis, this paper assumes that *one* is *n* which is the head of *n*P. (8) is the postulated structure of the above DP:

(8) [$_{DP}$ Julie's [$_{nP}$ ugly [$_{nP}$ [$_{NP}$ [$_{RP}$ √picture]]]]

R is a root category as has been proposed by Chomsky (2013, 2015). Above RP, NP, *n*P and DP are capped in a row to host lexical items. In (8), DP is a phase since it is the highest phrase in the extended projection of R. *Ugly* is a modifier which is adjoined to *n*P. The spec-DP is occupied by a possessive. Under this structural architecture, (6a) is grammatical in that *n*P (higher) is elidable since it is the complement of a phase head D. *Julie's* is possible as the complement NP is elidable. In (6b) *Julie's ugly one*, *one* is the substitute for <picture of her cat>, which does not bring about any problem. (6b) has to do not with ellipsis but with *one*-substitution. The thing is that the *one* for substitution must be differentiated from the numeral *one*, which is not carefully considered in Sato (2018). *One* has dual faces. To be specific, *one* can be understood either as *n* head or as the substitute of the whole *n*P. In *this one*, *one* is a substitute pronoun of *n*P not a numeral. In *these two, two* is definitely a numeral adjoined to *n*P. The *one* in (6b) is understood as a substitutive pronoun. Turning to **graduate*, look at the structure.

(9) [$_{DP}$ this [$_{nP}$ [$_{NP}$ graduate [$_{RP}$ $t_{graduate}$]]]]

Here DP is a phase and NP is the complement of a complement, hence it is not elidable according to Bošković (2014). It will also be shown that the proposed analysis has a desirable consequence in that the syntactic behavior of other types of mismatch in ellipsis like voice mismatch, polarity mismatch, and type mismatch can be nicely predicted.

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Session 5.

Language Acquisition

Comparative Analysis of Epistemic Modality Usage in Korean and English Native Scholars

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Abstract

Epistemic modality, closely linked to hedges, has drawn attention from several researchers because of the fact they have a correlation with English writing proficiency and politeness. However, small number of researches is undertaken which investigated Korean learners of English for their employment of epistemic modality. In this vein, the researcher set the research questions as follows: (a) to explore overall range and frequency in epistemic modality between Korean learners and English native speakers (b) to explore the differences between the two groups within grammatical category (c) to explore the differences between the two groups within semantic category. 60 papers are collected from two leading Korean journals (i.e., English Teaching and The Journal of Asia TEFL) for investigation, of which both journals are registered in Korean Citation Index (KCI). Two corpora consist of 30 native writers and 30 Korean writers. For analysis, lexical items of epistemic modality are made by compounding the word-bank of Hinkel (2005), Hyland (1998), Salager-Meyer (1994) and Oh (2007). The results indicate that Korean learners use more epistemic modality compared with the native speakers, which is inconsistent with the results of previous studies. On the contrary, with respect to the grammatical category and the semantic category, the results are consistent with the prior studies. Both groups mostly rely on modal verbs in the former and on probability (e.g., possibly, would) in the latter. This paper suggests the possibility that Korean learners can use epistemic modalities like native speakers if they have enough interest in the devices or proper instructions are given. Teaching epistemic modality is regarded as a conundrum since it is difficult to pin down the lexical items; however, suggested word-bank in this paper via combining 4 papers may ease the problem. Despite this implication, lack of inter-reliability of analysis will be discussed as a limitation.

[epistemic modality / semantic category / grammatical category / Korean scholars]

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Public perception of American TV dramas and self-motivated English learning patterns using them through an analysis of social media big data: Focusing on YouTube and Twitter

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The purpose of this study is to explore the Korean public's perceptions of American TV dramas as well as their self-motivated English learning patterns through an analysis of social media big data. For this purpose, we extracted texts containing the phrase 'American TV drama' from Twitter and YouTube, and analyzed them by using network, frequency, and semantic analyses. The study revealed that (1) while the public share information about American TV dramas on Twitter, their opinions and ideas about learning English using American TV dramas are mainly discussed on YouTube; (2) social network analysis of the top 20 words showed that 'English' and 'study' played a central role in explaining 'American TV drama'; and (3) the public perceived watching American TV dramas to be a good learning method for self-study of English and suitable for learning the expressions used by native speakers. This study is significant in that (1) text-based data was visually and quantitatively analyzed; (2) it utilized both text mining and social network analysis of the same subject; and (3) more than 2,000 comments on social media enabled access to more specific and natural opinions of the public about the given topic. Pedagogical implications are provided.

Session 6.

General Linguistics

Indexicality of commercial signs in South Korea

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This research stands on changing sociolinguistic paradigms in South Korea (hereafter Korea). Sociolinguistic paradigms in Korean society have long gone beyond the wide use of Korean language as semiotic resources since Korea embraced globalization as a national policy in 1990s. Let alone the penetration of English into Koreans' daily activities, an encounter with compounds of various linguistic resources in the street is not foreign, rendering indexicality of linguistic semiosis complex. Within this context, the followings are highlighted to investigate indexical meanings of commercial signs appropriating Silverstein's order of indexicality; socio-historical accounts of Korean nationalism that is still believed to be one of the most influential ideologies; the effect of nationalism on sociolinguistics of globalization in Korea; and Koreans' negotiation between nationalism and globalization, through which we can illuminate scaling processes sociolinguistics of globalization in Korean society.

The significance of investigating indexicality of semiotic resources is as follows; as soon as commercial signs are displayed for the consumption of the public they are no longer producers' personal practice but social practice, which would mean that indexical meanings of them are, to a large extent subject to users' interpretations (Leeuwen 2004; Scollon and Scollon 2001). Moreover, meaning making processes of semiotic resources depend on 'scaled sociolinguistic phenomena' so that their indexical meanings generated would not be the same as elsewhere (Blommaert 2020). That is, indexical meanings of semiotic resources constructed by combining Korean, English or other linguistic resources are realization of language use at Korean historical and social scales with different meanings and values. Thus, they reflect macro and micro aspects of sociolinguistic processes in Korea and Korean people's perception on the processes. Particularly, referring to the following fact that despite the secure position of English as one of the most invaluable linguistic resources with its symbolic power, linguistic nationalism is known to stay firmly in Korean society (refer to Ro 2001; Lee 2002), this investigation is able to provide an insight into how Koreans calibrate hegemonic powers between globalization and nationalism, and negotiate challenges from such dynamics. In these regards, the research will process referring to 1) incorporation between Korean and other linguistic resources, 2) ideological, sociocultural and further political implications of sociolinguistics of globalization, as findings of such delineate changing sociolinguistic paradigms of Korea, on which sociolinguistic indexicality stands.

Semiotic resources for this study are largely classified into four categories based on their linguistic and structural characteristics; 1) use of English initials for organizations' brand after globalization 2) use of compounds of various linguistic resources for brands 3) linguistic semiosis manipulating Korean words whose sounds are contiguous to English expressions 4) display of Korean brands or signs in English sound system.

As for findings, brand names in forms of compounds of various linguistic resources used in Korea tend to function as a voice that represents an imagery and a lifestyle; the companies and shops are rooted in local but their operation is translocal, asserting local allegiance on one hand, world-class standard and quality lifestyle, and global membership on another. That is, the register associated with brand names is context-bound within Korean sociohistorical and political scales. To render such linguistic semiosis acceptable and the meanings constructed identifiable by the public, people in business need to

establish symbolic systems in the creation of linguistic expressions based on indexicalities. An enterprise that needs not only to show local allegiance but also to signify translocal aspirations excogitates a brand name that implies; we, accredited as a globalized enterprise align with the local aspiration for an embodiment of globalization of local enterprises, and 'proudly' cherish our sentiment of Korean-ness. Thus, indexicality in this regard, jumps from a local-bound enterprise to a global enterprise whose high reputation is on the ground of one's integrity.

In sum, people in Korean business calibrate hegemonic powers between Korean nationalism and globalization and find ways to negotiate between them in brand names; English or some other linguistic resources subsume translocality, while the local language implies their allegiance to the local. As a result, the orders of indexicality take a dialectical move; from 'Local' to 'Global' and towards 'Global-yet-Local'.

This study is somewhat based on DHA (Discourse-Historical Approach) as its linguistic analysis stands on historical and sociological, and interdisciplinary approaches.

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Type of Presentation: Oral Presentation (25 minute talk and 5 minute discussion)
Area of Research: Sociolinguistics

When it comes to Korean ideologies of English language and culture, Park (2009) theorizes three distinct practices: necessitation of English in terms of social status and mobility, externalization of English as an Other that conflicts with Korean identity, and self-deprecation of one's own progress and achievements as English speakers. These ideologies compliment the Irvine and Gal (2000) language ideology concepts of iconization, fractal recursivity and erasure, and are meant to approach sociocultural descriptions; however, limited evidence exists in the literature to support these theories. Though some researchers have engaged the university setting for evidence of Korean students' English ideologies, few have investigated the English instructors. Their perspectives are important as well given both the educational and authoritative roles these instructors play in influencing students' language and academic progress. This study will present survey and interview data from instructors of English in Korea for gauging their thoughts on the three aforementioned ideologies, including how instructors derive their own conclusions and how they observe students exhibiting such characteristics. Survey data was collected in Spring 2020 with reflective interviews conducted in Summer 2020, so the circumstances of online courses during social distancing may have some influence in discussing results. For a few instructors, anonymous surveys gauging students' perceptions were also gathered and compared to their instructors' responses.

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The Grammaticalization of English Modals and Parameter-Resetting*

Sungkyun Shin (Kangwon National University)

Shin, Sungkyun. 2020. The Grammaticalization of English Modals and Parameter-Resetting. *English Language and Linguistics*. This paper analyzes the grammaticalization of English modals. Through the diachronic comparison of the versions of the Gospel according to Mark of the Bible, Old English (OE) Anglo-Saxon Version (AS) (A.D. 995), Middle English (ME) Wycliffe Version (Wycliffe) (A.D. 1389), Early Modern English (ENE) Tyndale Version (Tyndale) (A.D. 1526), and Present-day English (PE) New International Version (NIV) (A.D. 1983), the changes of English sentence structures containing English modals are clearly shown within the same contexts. Among the questions addressed in this diachronic data analysis are: whether modals are main verbs or auxiliaries in OE, how the grammaticalization of modals has been achieved, and when the dating of the grmmaticalization of modals with global changes is. I have found that starting from OE the number of modals plus infinitive complement (which I regard as an auxiliary feature of modals) has been increasing from OE 33, through ME 146 and ENE 163, to PE 179. The comparison of the diachronic versions of the Bible clearly shows that the grammaticalization of English modals has been developing gradually and not abruptly.

The opposition between graduality as shown above and abruptness by catastrophe approach (generative syntax) has been attempted to be solved by appealing to the concepts of I(nternal)-language, where change can only be abrupt, and E(xternal)-language, where change follows a gradually changing path. The hypothesis proposes that speakers may acquire more than one grammar like internal diglossia or Lightfoot's (2002) distinction between *grammatical change* (language use) from *grammar change* (language acquisition). In opposition to these double grammars or diglossia, to explain the gradual stages of grammaticalization of modals within the generative grammar with principles-and-parameters framework, I propose that parameter-resetting of diachronic changes is the result of the change of the status of markedness, especially concerning English modals. From OE through ME and ENE to PE, modals have both features of +LEXICAL VERB and + AUXILIARY VERB, and the difference between OE and PE modals is OE [+ LEXICAL VERB UNMARKED, + AUX VERB MARKED], and PE [+ LEXICAL VERB MARKED, + AUX VERB UNMARKED], by which I mean OE modals tend to be lexical verbs, whereas PE modals tend to be auxiliary ones.

As the rate of occurrence of modals as lexical verbs and that of modals as auxiliaries overlap and cross, the parameter-resetting takes place and it changes the status of the unmarkedness of the modals as lexical verbs to the status of markedness as lexical verbs, increasing the rate of occurrence of the modals as auxiliaries. Therefore, grammar change, reanalysis of grammaticalization, is a result of parameter-resetting mediated by markedness. Parameter-resetting also results in reanalysis of the markedness of the features from OE [+ LEXICAL VERB UNMARKED, + AUXILIARY VERB MARKED], to PE [+ LEXICAL VERB MARKED, + AUXILIARY VERB UNMARKED]. We can find many pieces of evidence showing that parameter-resetting is mediated by markedness throughout the history of the English language. In Shin (1992; 2006; 2019), I find the evidence in my diachronic syntactic study of English reflexivization, null-subject parameter including impersonal verbs, and change of English word order. Another evidence is Fischer's (2003: 445) layering, "the synchronic presence of diachronic variants expressing the same meaning or linguistics function," one case of which is provided by Fischer et al. (2000: 17-18). After the date of the assumed parameter-resetting of the availability of the inherent case in the second half of the thirteenth century, examples of adjective followed by a PP will still be found, side by side with the former adjective + object. The rise of *do*-support in the ENE is also another piece of

evidence as discussed by Fischer et al (2000:18-19). A universal evidence besides English is the present-day Chinese *yào*, which functions either as a lexical verb meaning 'want' or an auxiliary verb meaning 'will' like the OE *willan*. My proposal of parameter-resetting mediated by markedness implies the support of Fischer's (2000) claim that grammaticalization is reversible, whereas it is against Haspelmath's (1989; 1999) claim that a universal path of grammaticalization is unidirectional in that the pendulum of markedness may move in either grammaticalization or degrammaticalization direction.

Key words: grammaticalization, English modals, parameter-resetting, markedness

Session 7.

Sentence Structure

Metaphorical Duality in Korean BE-Possessive Constructions

Youngju Choi (Chosun University)

Introduction: Korean dative subject construction has been known for its noncanonical case marking: it has a dative-marked subject and a nominative-marked object((1a)). Another peculiar property of the construction is that the dative subject alternates its case with the nominative((1b)). Traditionally, the case alternation has been regarded as a mere syntactic alternation, which does not incur semantic change (Gerdts and Yoon 1988, 2001, Youn 1990, 1998). However, this paper will argue that the dative subject construction (**D**ative-**N**ominative-**P**redicate **C**onstruction: **DNPC**) and the nominative subject construction(**N**ominative-**N**ominative-**P**redicate **C**onstruction: **NNPC**) have their own rights, rather than being alternating partners, supporting Goldberg(1995, 2003, 2006).

Syntactic and Semantic Differences between DNPC and NNPC: Close observation reveals that DNPC and NNPC are syntactically and semantically different. Not all DNPCs allow alternation with NNPCs ((2,3)) and vice versa ((4)). Moreover, DNPCs and NNPCs do not share all meanings when they occur with idiomatic expressions. DNPCs allow literal as well as idiomatic interpretation as shown in (5a). On the contrary, the literal construal is not available in NNPC as in (5b). These differences cannot be explained by the traditional view that DNPC and NNPC are syntactic alternations. Rather, this paper will posit that DNPC and NNPC are metaphorical duals as defined by Lakoff (1993) to explain their behavioral differences.

Metaphorical Duality: Korean DNPCs and NNPCs realize their possessive meanings in two different metaphorical systems. DNPC is a location-dual. The dative subject of DNPC is conceptualized as a location to which the nominative object moves. As a result of the movement, the object is located near or within the subject ((6)). This spatial proximity or spatial inclusion is metonymically interpreted as possession. On the other hand, NNPC is an object-dual. The nominative subject of NNPC is conceptualized as a possessor and it possesses an object/state that is designated by the combination of a nominative object and a predicate ((7)).

Explanation: Metaphorical duality provides sufficient explanation for the differences between DNPC and NNPC. In (2), only the DNPC is allowed. The dative subject, Jack's pocket, possesses the nominative object, money, because money is located in the pocket. NNPC is not allowed since a pocket is a not an adequate possessor of money. However, in (3) both DNPC and NNPC are allowed since Jack's shirt can be a location where a pocket is placed and it can also be a possessor of its pocket. Metaphorical duality accounts for not only syntactic difference, but semantic differences as well. DNPC allows literal and idiomatic interpretations, as in (5a), since a pumpkin's movement toward someone can be construed as spatial proximity and the proximity can be metonymically interpreted as possession. However, in (5b), NNPC only allows the idiomatic meaning because there is no metaphorical spatial proximity or inclusion in NNPC.

Conclusion: The result of the paper supports Construction Grammar. The two forms, DNPC and NNPC, have their own meanings and consequently their own rights. Alternation occurs when some predicates designating psychological state and necessity happen to be compatible with the location system as well as the object system of metaphorical duality.

(1) a. Jack-**eykey** ton-**i** iss-ta (**D**ative-**N**ominative-**P**redicate: **DNPC**)
J-Dat money-Nom exist-Dcl
'Jack has money'
b. Jack-**i** ton-**i** iss-ta(**N**ominative-**N**ominative-**P**redicate: **NNPC**)
J-Nom money-Nom exist-Dcl
'Jack has money'

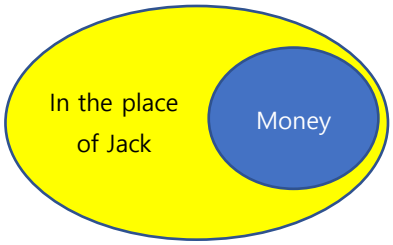
(2) a. Jack-cwumeni-**ey** ton-**i** iss-ta
J-pocket-Dat money-Nom exist-Dcl
'Jack has money in his pocket' (DNPC: Grammatical)
b. *Jack- cwumeni-**ka** ton-**i** iss-ta
J-pocket-Nom money-Nom exist-Dcl (NNPC: Ungrammatical)

(3) a. i syechu-**ey** cwumeni-**ka** iss-ta
this shirt-Dat pocket-Nom exist-Dcl
'This shirt has a pocket' (DNPC: Grammatical)
b. i syechu-**ka** cwumeni-**ka** iss-ta
this shirt-Nom pocket-Nom exist-Dcl
'This shirt has a pocket' (NNPC: Grammatical)

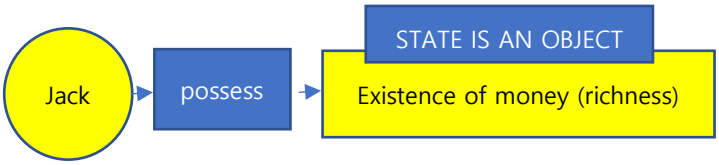
(4) a. apeci-**ka** hoysa-**ka** manghay-ss-ta
father-Nom company-Nom go.bankrupt-Pst-Dcl
'My father's company went bankrupt' (NNPC: Grammatical)
b.*apeci-**eykey** hoysa-**ka** manghay-ss-ta
father-Dat company-Nom go.bankrupt-Pst-Dcl (DNPC: Ungrammatical)

(5) a. wuli-**eykey** hopak-**i** nengkhwulchay kulewa-ss-ta
we-Dat pumpkin-Nom vines.and.all roll.down-Pst-Dcl
Lit. 'To us, a pumpkin rolled down vines and all'
Idiomatic Meaning: 'We have a great fortune' (DNPC: literal & idiomatic)
b. wuli-**ka** hopak-**i** nengkhwulchay kulewa-ss-ta
we-Nom pumpkin-Nom vines.and.all roll.down-Pst-Dcl
Idiomatic Meaning: 'We have a great fortune' (NNPC: idiomatic only)

(6)



(7)



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On the Alternation of *in/at* in 'Verb *in/at* V-*ing*' Patterns in English

Whenever two different constructions have the similar syntactic function, the question arises as to what makes this happen. It has been widely known that the two constructions differ either in having different lexical constraints imposed on the constructions or in taking a different way of structuring the information flow. As shown in (1), different predicates may combine with different complement types. As such, the main verb *balk* combines with a phrase consisting of a preposition *at* plus gerundive V-*ing* clause, whereas the verb *walk* occurs together with a phrase composed of a preposition *in* plus gerundive V-*ing* clause. This, though, does not work in (2), in the sense that the matrix verbs *stop* and *succeed* pair up with two different complement types such as '*in* or *at* preposition plus gerundive V-*ing* clause'. From the complementation shown in (1) and (2), this study assumes that these examples may not be compositional. Of course, the matrix verbs *balk* and *walk* in (1) can be regarded, at first glance, as occurring with a phrase functioning as an adverbial clause, in the sense that they are most frequently used as an intransitive verb. According to Poutsma (1929: 829) and Rudanko (1991), the *in*/*at* V-*ing* patterns have ambiguity in that they can function as a complement as well as a modifier. These patterns in (1) can be an answer to the questions *what have the government balked at*? Or *what have the government balk at accepting*?, but not *why/when/how have the government balked*? This study focuses on the complement pattern, leaving the adverbial clauses introduced by *at*/*in* outside the scope of the research.

(1) a. The Lima government has **balked at accepting** $35 million in U.S. military aid. (COCA 1990 MAG)

b. Tommy is at Merlotte's when Marcus **walks in looking** for Sam. (COCA 2012 WEB)

(2) a. This is now over 6 years ago and I still have clients who **stop in looking for** Harley[1]. (COCA 2012 BLOG)

b. Anybody that would kill their uncle will not **stop at killing you** if you lose the game. (COCA 2014 SPOK)

c. Ginger and Sam **succeeded at building** a new home that has the charm and character of the past. (COCA 1998 MAG)

d. In fact, he eventually **succeeds in driving** her out of business. (COCA 2000 MAG)

The alternation of the prepositions *at* or *in* in *in/at* V-*ing* patterns raises two questions. The first is whether the language users can freely choose between these two patterns, implying that this alternation does not affect the change of meaning between the two. The other is whether the alternation in a preposition makes them different complement-taking predicates, contributing to identify two different patterns. The issues on the clausal complementation have long been paid a lot of attention and the researches on the pattern "V + preposition + V-*ing*" have also been found in the previous literature (Rudanko 1989, 1991; Dixon 1991, etc). In line with these researches, this paper is intended to extend the focus into the grammatical functions of the prepositions that can bring about the alternation of the preposition *at* or *in* pattern.

The major goals of this study are to investigate the grammatical characteristics of the *in/at* V-*ing* alternations, identifying whether this alternation motivates to create two different constructions where their forms map to each meaning, and to explore the decisive factors determining under what syntactic or semantic conditions this alternation arises. For doing this, this study adopts a corpus-based analysis

[1] Harley here refers to a dog.

under which I collected one thousand sentence samples per pattern from COCA. In addition, the statistical test is added, statistically confirming the interpretations that can be derived from the findings of this study.

As the results, this study demonstrates three points that make these two patterns distinctive: the inherent aspectual properties of the prepositions, the semantic functions of the matrix verbs, and the relation between the preposition and the gerundive V-*ing* verbs. More specifically, this study shows that the aspectual properties of the prepositions *at* or *in* make a significant contribution to creating these different constructions, thereby providing different interpretations of each pattern. The preposition *at* in this constructional pattern denotes the aspect of inception, encoding the situation which is not yet actualized at the time of an event. On the other hand, the preposition *in* designates the aspect of being actualized at the time. The matrix verbs selecting these different aspectual properties can occur at the position followed by the proper preposition. This study classifies the matrix verbs into two different types in terms of the semantic functions in this construction: manner type and means type. That is, the matrix verb in *at* V-*ing* pattern expresses the degree of the agent's intention of carrying out the act of V-*ing*. The verbs are listed as follows: *aim, balk, be, direct, excel, fail, hesitate, stop, delight, excel, help, succeed, target, work,* etc. On the other hand, the matrix verb in *in* V-*ing* pattern denotes the degree of the agent's participation in performing the act of V-*ing*. The verbs are listed as *aid, assist, believe, cooperate, engage, experience, fail, help, participate, persist, play, result, specialize, succeed*, etc.

Along with these works, the study tries to investigate the correlation between the aspectual properties of the prepositions and the gerundive V-*ing*, thereby finding out whether there can be the crucial factors when the interlocutors freely select the alternative pattern between the two.

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Session 8.

Second Language Acquisition

How Korean learners of English predict upcoming syntactic structure during sentence processing

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This paper investigates how L2 speakers predict upcoming syntactic structure based on a newly received word during sentence processing. One way of predicting appropriate syntactic structure is *probabilistic inference*. For instance, readers are most likely to postulate the forthcoming syntactic structure predicted relying on their experiences with the language they use (DeLong, Urbach, & Kutas, 2005; Smith & Levy, 2013). Linzen and Jaeger (2016) employed subcategorization frame(s), which are the option(s) that a verb takes for their complement(s) to quantify the information-complexity metrics of a given word that reflects the processing difficulty during sentence processing. They used three kinds of the information-complexity metrics; surprisal, entropy, and entropy reduction. Surprisal is related to the unexpectedness of a given word after a string of preceding words; entropy is the uncertainty about upcoming syntactic structure; and entropy reduction is the fluctuation of the uncertainty from one word to the next. The latter two metrics in their L1 study were estimated from a probabilistic context-free grammar (PCFG) based on Penn Treebank corpus. Linzen and Jaeger's study demonstrates that the surprisal and the entropy reduction about the full prediction, which is the prediction of the whole syntactic structure of the sentence, has an impact on processing difficulty during sentence processing in English native speakers. In particular, English L1 speakers predict the syntactic structure for the upcoming context promptly after reading a verb.

The present study replicated the earlier study by Linzen and Jaeger (2016). However, it differs from Linzen and Jaeger's study in two respects. First, the experiment was conducted for Korean L2 learners of English. Second, the PCFG was estimated from a corpora of English textbooks published in Korea from 2001 to 2009 (consisting of 2,750,000 word tokens). It is expected that the PCFG from the language materials that L2 English learners are familiar with can provide a better account for their behavior in sentence processing.

All the experiments were run on Ibex Farm, which is the web-based experimental presentation platform (Drummond, 2013). Each sentence was presented in a word-by-word, self-paced moving window. The experimental stimuli consisted of 30 sentence pairs adapted from Linzen and Jaeger (2016). Each pair involved one type of sentences with the complementizer added after a main verb, *The men discovered that the island had been invaded by the enemy*; and the other without it, *The men discovered the island had been invaded by the enemy*. 35 undergraduates from Dongguk University in Seoul, Korea participated in this study (13 males, mean age = 25.2, range = 19~30). The data was analyzed by following the statistical methods in Linzen and Jaeger's study. The results show that a significant effect of Entropy on RTs in the ambiguous region was detected (β=-0.100, SE=0.040, t=2.454, p<.05): Higher entropy was correlated with longer RTs in the ambiguous region. In addition, a significant effect of Sentence Condition (ambiguous vs. unambiguous sentence) at the ambiguous (β=-0.254, SE=0.088, t=-2.883, p<.01) and the disambiguating regions (β=0.340, SE=0.160, t=2.125, p<.05) was found: RTs were longer in the ambiguous regions of the ambiguous than of the unambiguous sentences, but were longer in the disambiguating region of the unambiguous than of the ambiguous sentences, supporting the entropy reduction hypothesis. As a result, Korean L2 learners of English start to predict the upcoming syntactic structure in the post-verb, ambiguous and disambiguating regions when they are provided with more solid evidential sources such words and structures for syntactic (re)analysis.

Overall, Korean L2 learners of English differ from English native speakers in sentence processing. Still, the behavioral aspects of sentence processing by Korean L2 learners of English can be explained by the predictions that the entropy reduction and the surprisal hypotheses make, especially at the ambiguous and the disambiguating regions.

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Appendix A. The interest region of target sentences

Words	The men	discovered	(that)	the island	had been invaded	by the enemy.
Region	Subject	Verb	That	Ambiguous	Disambiguating	Rest

Korean English Learners' Comprehension of the Semantics of Disjunction

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It is widely known that the disjunction *or* leads to three different kinds of interpretations as in (1), which is divided into inclusive, conjunctive, and exclusive interpretation.

(1) The hen pushed the bus or the airplane.
   a. The hen pushed the bus or the airplane or both. inclusive
   b. The hen pushed the bus and the airplane. conjunctive
   c. The hen push the bus or the airplane but not both. exclusive
   Tieu *et al.* (2017)

The interpretation of disjunction *or* has been discussed extensively in the literature (Paris 1973; Braine & Rumain 1981; Chierchia et al. 2001; Noveck 2001; Singh et al. 2015), reporting that children showed general tendency of interpreting the disjunction *or* conjunctively and inclusively. Children tend to reject exclusive interpretation in contexts where only one of the disjuncts is true. Furthermore, they accepted *or* when both disjuncts are true, leaning toward conjunctive interpretation, as shown in (2).

(2) Children and adults' deviance in A∨B

State of affairs	Adults (exclusive)	Children (conjunctive)
¬A, ¬B	F	F
A, ¬B	T	F
¬A, B	T	F
A, B	F	T

Singh *et al.* (2015) proposed that children are indeed capable of exhaustifying, accessing strengthened meanings just as adults process, but they differ from adults in the alternatives they generate as in (3bi). In other words, adults comprehend *or* exclusively by negating the strongest set $A \wedge B$ that was generated in the set of alternatives. However, in case of children, since $A \wedge B$ is not generated in the set of alternatives, the mechanism of negating the strongest set cannot be applied. Eventually, children reach a conclusion of including all the relevant members in the alternative set.

(3) a. Adult:
   (i) ALT_{Adult} = {A, B, A∧B}
   (ii) Str(ALT_{Adult}, A∨B) entails ¬(A∧B)
   b. Child:
   (i) ALT_{Child} = {A, B}
   (ii) Str(ALT_{Child}, A∨B) entails A∧B

Regarding these various possible interpretations of *or*, Tieu *et al.* (2017) experimented on both children and adults. In Tieu *et al.* (2017), two kinds of disjunctions were used as test materials: simple disjunction and complex disjunction. Complex disjunction is known to obligatorily facilitate exclusive

readings. The result was that L1 children interpreted both simple and complex disjunction either inclusively or conjunctively. Children do not seem to distinguish simple and complex forms of disjunction in comprehension. On the other hand, L1 adults accepted only the exclusive interpretation in both simple and complex disjunction.

Based on Tieu *et al.* (2017), we ran a judgement task on advanced L2 learners of English to see whether they display similar way of interpreting *or* to that of the L1 children. The task materials are given below as in (4) and (5). In line with Tieu *et al.* (2017), the disjunction materials were divided into two kinds, one being the simple disjunction as in (4) and the other being the complex disjunction as in (5).

(4) simple disjunction
John opened the window or the door
a. John opened just the window or just the door; or both the window and the door.
b. John opened both the window and the door.
c. John opened the window or the door but not both.

(5) complex disjunction
James painted either the car or the truck.
a. James painted just the car or just the truck; or both the car and the truck.
b. James painted both the car and the truck.
c. James painted the car or the truck but not both.

The result displayed characteristics of both L1 children and L1 adults. Interestingly, as L1 children, half of th L2 learners tend to interpret *or* conjunctively and inclusively, whereas the other half interpreted *or* exclusively, as L1 adults do.

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Session 9.

Syntax/Corpus Linguistics

On Movement

(Oral presentation /Syntax)

In this empirical research, we delve into the long-held discussion between raising and control and discuss the pros and cons of the movement theory of control (Hornstein, 2001; Hornstein & Polinsky, 2010). Following Sportiche (1988) and Bobaljik (1998), this study illustrates that a quantifier which appears and gets stranded within the embedded infinitive clause of control construction exhibits syntactic behaviors which cannot be accounted for under Hornstein (2001)'s MTC framework. Through analysis of numerous English and Korean data, this study shows that, unlike a quantifier in raising, a quantifier stranded in the embedded clause of control construction is not always associated with the matrix subject. In many instances, a quantifier base-generated in the embedded infinitive clause of control construction is observed to be associated with some other elements which are outside the matrix CP. This phenomenon is observed uniformly both in English and Korean. From these findings, this study concludes that a quantifier's syntactic behaviors exhibited in control construction can only be accurately and properly explained under the PRO theorem(Chomsky 1981, 1986), hence no movement.

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What about and *how about* constructions: A corpus-based diachronic perspective

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English employs the so-called *what about* and *how about* constructions, as illustrated in (1) (Quirk et al. 1985; Shopen 1974):

(1) a. What/How about [another kiss]?
b. What/How about [following us in your car]?

Previous literature has noted that the two expressions *what about* and *how about* are generally followed by a noun phrase (NP) or an *-ing* verb phrase (VP[*-ing*]) and they are interchangeably used to make requests, suggestions, and invitations (Quirk et al. 1985; Shopen 1974; Malá 2000; Sonoda 2009).

These two constructions are known as irregular *wh*-questions since they exhibit different grammatical properties from canonical *wh*-questions (Quirk et al. 1985). For instance, although the two constructions can also be used as pure inquiries (e.g., *How about your parents? Are they well?*), they do not involve variables and thus they do not require values for them as their appropriate answers unlike canonical *wh*-questions (e.g., *A: What did you eat for lunch? B: Pho. / A: How did you do on the exam? B: Very well.*) (Quirk et al. 1985; Malá 2000). In addition, as opposed to canonical *wh*-questions, the two constructions cannot occur in embedded environments (e.g., **John wondered [what/how about another kiss].* vs. *John wondered [what you ate for lunch]. / John wondered [how you did on the exam].*) and they are unacceptable under the two-clause reading (e.g., **What/*How did you say [about another beer]?* vs. *Who did you say [ate pizza for lunch]?*) (Gottschalk 1992; Huddleston and Pullum 2002; Sonoda 2009; Wierzbicka 2003).

Even though most previous literature has mainly focused on the similarities of the two constructions (Quirk et al. 1985; Shopen 1974; Malá 2000), some differences have been observed as well, in particular, with respect to their inferred illocutionary force and the grammatical forms they preferably occur with (Gottschalk 1992). For example, in general, the *what about* construction is frequently used to as a reminder of something known to all interlocutors and thus concerns old information and its basic function is to ask for further information; on the other hand, the *how about* construction is favorably used to provide new information, conveying a suggestion, a request, and an invitation. However, no previous literature has investigated their similarities and differences in real life uses and their historical development.

To fill the research gap, this study attempts to examine how they have been actually used in real life, how similar and different they have been, and what kinds of diachronic changes they have undergone. In doing so, for both quantitative and qualitative investigations, this study makes use of authentic corpus examples (8390 *what about* examples; 5590 *how about* examples) extracted from COHA (Corpus of Historical American English), which consists of American English data for the past 200 years

The corpus findings show us some real life uses of the constructions in terms of their overall distributions and several interesting grammatical properties of them in diachronic aspects. First, the two constructions display similar behavior in some respects. For instance, both the constructions are used predominantly in informal contexts in that they are used most frequently

in fiction register followed by popular magazine register. In addition, with respect to the syntactic categories of the dependents the two expressions *what about* and *how about* occur with, both of them occur most frequently with a NP dependent (8019 *what about* examples vs. 4616 *how about* examples). Moreover, the frequency numbers of the examples of the two constructions have substantially increased since the beginning of the 20th century.

However, the two constructions also display different behavior in some other respects. For example, the frequency number of *what about* construction examples started to be significantly higher than that of *how about* construction examples from the 1960s. Next, the *how about* construction occurs much more frequently than the *what about* construction when the dependent is a type that denotes a proposition (e.g., finite clause, small clause, finite sentence, VP[-ing]) (293 *what about* construction examples vs. 899 *how about* construction examples) and this frequency difference is statistically significant (one-tailed Fisher's Exact test: p-value $<$ 2.2e-16). In addition, when the two constructions involve a finite clause dependent, *what about* occurs most frequently with a temporal clause introduced by *when*, while *how about* occurs most frequently with a conditional *if*-clause. Another striking difference comes from their preferred functions. For instance, none of the *what about* construction examples with a finite clause dependent is used to make a suggestion; instead, they are all used as pure inquiries. On the other hand, 52 out of the 96 *how about* construction examples with a finite clause dependent convey a suggestion function and they are all from cases with a conditional *if*-clause dependent. Related to this, all the *how about* construction examples taking a conditional *if*-clause dependent with a pure inquiry function started to appear since the 1960s; however, those with a suggestion function began to appear in the 1900s.

The corpus findings overall suggest that although the *what about* and *how about* constructions show similar properties in terms of some general uses and historical development patterns, they exhibit different properties with respect to frequently-occurring dependent types, preferred functions associated with them, and detailed diachronic change patterns.

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Session 10.

Computational Linguistics and Language use

Deep Learning and Automatic Error Detection in the ACCESSS Error-tagged English Learner Corpus

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Abstract

Since the introduction of learner corpora in the Second Language Acquisition (Granger, 1998), there have been various studies on error tagging of learner English, and several different types of methods have been proposed for the error-tagging of a learner corpus (Dagneaux et al., 1996, 1998; Díaz-Negrillo and Domínguez, 2006; Lüdeling and Hirschmann, 2015).

Although some learner corpora were compiled for Korean EFL learners (such as YELC, English Learner Corpus in Kyungpook National Univerity, English Learner Corpus in Gachon Univerity), they were basically the corpora without error tagging. On the other hand, ACCESSS (Academic Center for Corpus-based English Studies and Statistical Solutions; accesss.or.kr) compiled an error-tagged learner corpus, which was called the ACCESSS Error-tagged English Learners Corpus (henceforth, the ACCESSS Corpus).

The ACCESSS Corpus is basically composed of two major components for error tagging. One was the component which used the *Grammarly* software, and the other was the one with deep learning (Goodfellow et al., 2016). The error patterns produced by the Korean EFL learners were presented in Lee (2020), and this paper mentions how the deep learning components work in the detection of errors.

This paper is on the deep-learning components, which independently works with the component with *Grammarly* software (It implies that the error tagging in the ACCESSS corpus can also be possible without *Grammarly*). Even though the ACCESSS Corpus contained some other algorithms (such as sentence embedding or topic modeling) in deep-learning architecture, the basic algorithm for deep learning was based on word embedding models. Significantly, the corpus utilized the Word2Vec algorithm(Mikolov et al., 2013a, 2013b).

Several different kinds of corpora were employed in the compilation of the ACCESSS corpus. The Brwon family's corpus (Brown, LOB, Frown, FLOB, AmE06, and BrE06), the Louvain Corpus of Native English Essays (LOCNESS), and the British/USA component of International Corpus of English (ICE-GB and ICE-USA) were adopted for computational modeling of native speakers' English. On the other hand, the Korean component of the TOEFL11 (Blanchard et al., 2013) corpus was used for modeling the Korean EFL learners' English. The Word2Vec models were constructed using these corpora. One was for English native speakers, and the other was for Korean EFL learners.

After a Word2Vec model was constructed with the corpus for English native speakers and Korean EFL learners respectively, error detections and error taggings were implemented by comparing two Word2Vec models. When the error detection algorithm found the case where Korean EFL learners' word choice was different from the natives' one, the candidates of appropriate words were predicted by the Word2Vec model for native speakers. Then, the differences between native speakers' and Korean EFL learners' word choice were calculated in the vector space. The word choice by Korean EFL learners was decided to be an error if the differences were higher than the predefined threshold value. By adopting this strategy, the ACCESSS Corpus automatically detected the errors which were produced by Korean EFL learners.

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Deep Learning as an L2 Learner

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This paper aims to model how L2 learners learn English using deep learning technologies, and furthermore, we investigate which factors are involved in conditions of (non-)nativelikeness based on the non-nativelikeness of L2 learners represented in the language models. The investigated factors of nativelikeness in the current work are focused on syntactic well-formedness and lexical associations. To represent the way L2 learners learn English, we build up deep learning models that can correctly classify nativeness of English sentences. This work makes use of four different deep neural networks: (i) Recurrent Neural Network (RNN, Rumelhart et al., 1986), (ii) Long-Short Term Memory RNN (LSTM, Hochreiter & Schmidhuber, 1997), (iii) Bidirectional Encoder Representations from Transformers (BERT, Devlin et al., 2018), and (iv) XLNet (Yang et al., 2019). We train the networks with L1 and L2 data, the total size of which is 651,665 sentences, and the task assigned to the models is to discriminate English sentences written by native speakers from those made by non-native ones. In doing so, we attempt to model English learners by the networks learning characteristics of L2 data. Technically speaking, however, we model English teachers that have knowledge of nativelikeness, representing non-native English teachers with RNN and LSTM and native teachers with BERT and XLNet, in that the networks are trained with L1 as well as L2 data. The validation accuracies of the four models are 94.27% (RNN), 95.35% (LSTM), 97.82% (BERT), and 97.33% (XLNet). Those models are evaluated by classifying nativelikeness of every sentence in 3 test suites. The first suite, consisting of two native and two non-native data, is used to evaluate the models' nativelikeness classification accuracy and the results indicate they classify the test sets in reasonable ways with high accuracies. The second suite is syntactic well-formedness judgment test items from Dekeyser (2000). It is used to confirm whether syntactic well-formedness is the determinant of judging nativelikeness, and the results show it is not the case. The third test suite, consisting of syntactic well-formedness and lexical association test items from Leacock et al. (2010), Nesselhauf (2003) and Shei & Pain (2000), is used to investigate whether lexical association is the decisive factor of nativelikeness. Korean learners of English and the four models are tested with the third suite. The results of the participants indicate Korean English learners lack the knowledge of lexical associations, which means it would be a characteristic of non-nativelikeness reflected in the training data (made by Korean English learners) and the models would have learned it. The models, however, show poor performance on detecting lexically bad associations, which indicate lexical associations are also not the critical factor. From the heatmap analyses, we explore more in detail which tokens BERT and XLNet pay attention to. The heatmaps suggest that well-formedness and lexical associations are not the sufficient condition, but the necessary conditions for nativelikeness. Furthermore, the number of minimal pairs given the same predictions indicates the models give a prediction in an incorporated view. This is probably because they consider every token and connection among them, which is a characteristic of the contextual embedding. We conclude that to define and assess nativelikeness, it is necessary to consider other factors beyond the two attributions.

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Language Use between Man and Woman: A Deep Learning Approach

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Abstract

It is well-known that language use may be differentiated with gender differences. There have been several linguistic and theoretical studies on the differences between the language use of men and that of women (Holmes et al., 2003; Ehrlich et al., 2014). There have also been a few corpus-based studies, such as Baker (2014), which took corpus data and examined the similarities and differences. Unlike these previous studies, this paper took a deep-learning approach (Goodfellow et al., 2016) and investigated gender differences. Among many deep-learning methods, this paper took a Word2Vec analysis (Mikolov et al., 2013a, 2013b) before the corpus-based concordance analysis. The reason why a deep-learning approach was adopted here was that not only the frequency but also the context information could be included within a single language model and that it would be much easier to calculate the similarities and differences if the word vectors were employed in the comparison.

For the investigation, the Cornell Movie Dialogs Corpus was taken in this paper (Danescu-Niculescu-Mizil and Lee, 2011), which contained 220,579 conversational exchanges between 10,292 pairs of movie characters in 617 movies. For every sentence in the corpus, the speaker's name and gender information were annotated. Then, each sentence was classified into three groups (*male*, *female*, and *unknown*). Since some sentences had no clue for gender information, they were classified into the *unknown* group. After the word lists were obtained for two groups *male* and *female* separately, a new word list was constructed which contained the vocabularies common to both groups. In the next step, word embedding algorithms were applied to the sentences in male and female groups, and a Word2Vec model was constructed for each group separately, which had $V \times 300$ dimensions. For the comparison of word vectors between *male* and *female*, a Euclidian distance was employed. The difference was calculated for all the words which were common to both *mal*e and *female* group.

Through the comparative analysis, the followings were observed: (i) about 19,000 words were common to both groups, (ii) there were significant differences in the use of *gonna* (including *going to*), contractions (*'ll*, *'ve*, *'t*, *'d*, *'m*), negation (*don't*, *didn't*, *won't*), and some modal auxiliaries (such as *will* or *can*), and (iii) two groups of speakers were similar to each other in the use of interjections (such as *o*, *oh*, *uh*, *um*, or *hm*).

Because *gonna* showed the biggest differences between *male* and *female*, all the sentences with *gonna* were extracted from each group of the corpus. All the sentences with *going to* were also extracted from the corpora. Then, the contexts were closely examined with

AntConc (Anthony, 2020), where *gonna* and *going to* were used. The investigation showed that the *female* group used *going to* more frequently and that the differences were statistically significant (χ^2=170.57, p<.001). The examination of concordance lines revealed that the choice of *gonna* and *going to* were determined by the properties of subjects. The female group had a tendency that they preferred to use *gonna* when the subject was a noun and when the subject referred to a masculine entity.

The results that the *female* group used *going to* more frequently supported the previous studies that women, regardless of other social characteristics such as class, age, etc., tended to use more standard forms than men (Romaine, 2003). The examination of concordance lines also revealed that men's speech was more formal than the female's one. This paper illustrated the fact with corpus data and the combination of deep-learning and corpus-based methods.

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Session 11.

Psycholinguistics and Neurolinguistics

Issues on individual differences in sentence comprehension

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Many psycholinguistic studies have demonstrated that a range of cognitive processes such as working memory maintenance and updating, inhibitory control, and set shifting are engaged during language comprehension. Such domain-general executive functions are significantly exploited to account for individual differences in the accuracy and speed of reading comprehension. In many studies, the issue of individual differences in sentence comprehension has been disputed on the resolution of lexical ambiguity with a focus on whether working memory (WM) plays a role as storage capacity or inhibition controller.

In this talk, I would like to discuss whether executive functions (WM storage capacity and inhibitory control) would also be critical for predictive language processing. Note that it has been widely accepted that readers' active use of given lexical/structural information and event knowledge elicits anticipatory processing of yet-to-be-encountered information. However, not many studies have paid much attention on which executive functions are more or less engaged in predictive/anticipatory sentence comprehension. Only some studies have examined between-group differences (e.g., age differences or native-language differences), but not within-group differences, as a sort of individual difference in anticipation-based sentence comprehension.

During my talk, I will briefly go over previous studies in the literature, and then present two empirical studies in which Korean dative structures were tested under the framework of anticipation-based sentence comprehension: 1) One study using an ERP method will show the quantitative and qualitative differences across the readers as a function of working memory span. The differences of readers' WM capacity led to crucial variations on the predicative use of lexical and structural information during sentence comprehension, concluding that the lack of WM capacity made readers fall behind in the use of lexical and structural information during sentence processing, in particular, for argument integration. 2) The other study using a self-paced reading method will show that the differences of readers' sensitivity to reading span and cognitive control led to significant variations on the predicative use of lexical and structural information during sentence comprehension. I will argue that domain-general executive functions, both WM span and inhibitory control, are crucially engaged during predictive sentence comprehension.

Processing Speech Acts in L2: Evidence from eye movements

Myung-Kwan Park, Yoo Lae Kim and Jeong-Ah Shin

(Dongguk University)

Recognition of verbal actions in conversation is important for every moment of the interactions. However, utterances in conversation are often not explicit to label regarding the verbal actions (or speech acts), and thus it is expected that listeners depend on the context to recognize the actions. *Speech Act Theory (SAT)* proposes to account for language use as its intentional meaning. An elementary feature of this theory is to conceptualize an utterance both with a propositional content which is a collection of the surface meanings of spoken words and with an illocutionary force which the hearer should identify the intention of the speaker's utterance with. The intended meaning is important, especially in a polite conversation, since the speaker may have something beyond the uttered words. Thus, indirect or polite speech acts are dominant in communication to present one's opinions. Other studies (Gisladottir, Chwilla & Levinson, 2015; Yin & Kuo, 2013) demonstrated that people are more likely to be confused by indirect speech acts than by direct ones. Therefore, this study aims to explore how Korean-English learners comprehend indirect speech acts in English conversation by examining their eye movements which are reflections of the human cognitive activities.

27 native Korean students participated in the experiment. Participants read the dialogues and were asked to classify the target utterance by *Answering, Offering,* and *Declining.* Therefore, each dialogue included the target utterances such as *"I have a credit card"* which can represent three functionally different speech acts (*Answer, Pre-offer, Declination*; 10 items each) depending on the prior context (Gisladottir, Chwilla & Levinson, 2015). The *Answer* condition was set as the control condition (*How are you going to pay for the ticket? – I have a credit card)*, the *Pre-offer* condition consists of expressing the need or desire at the first turn followed by the prelude to an offer (*I don't have any money to pay for the ticket. – I have a credit card)*. The *Declination* condition involves an offer-rejection construction (*I can lend you money for the ticket. – I have a credit card)*.

The participants showed higher accuracy rates ($p<0.01$), indicating that they were able to identify the speech acts in underspecified conversations. The overall response times revealed that it took longer for the participants to recognize the *Declination* and the *Pre-offer* conditions than the *Answer* condition ($p<0.05$). Besides, the difference between the *Declination* and the *Pre-offer*, being indirect speech acts, showed that the latter was more difficult to identify than the former. Through the eye movements' results, especially in the number of fixations and the total fixation duration, the participants took significantly longer in the *Pre-offer* condition than the other two conditions ($p<0.05$). This means that they expended more efforts in processing the *Pre-offer* condition than the *Declination* condition. All in all, although the *Declination* and *Pre-offer* may have caused more cognitive efforts than the control *Answer* condition, L2 learners were able to recognize the speech acts in speech-act underspecified situations.

Comprehension accuracy & response time in comprehension

		Answer	Declination	Pre-offer	*F*
Accuracy	Mean	0.9312	0.7187	0.8000	10.504**
	Std.	0.0873	0.1424	0.1724	
Response time	Mean	689.79	743.24	922.39	3.562*
	Std.	272.05	346.93	370.18	

Eye-tracking data

		Answer	Declination	Pre-offer	*F*
The number of fixations	Mean	23.92	24.61	27.78	6.125*
	Std.	6.06	5.46	7.04	
Total fixation duration	Mean	4626.36	4800.66	5442.72	5.842**
	Std.	1371.71	1366.26	1877.38	
Average fixation duration	Mean	198.69	196.35	194.39	0.554
	Std.	49.56	43.88	42.93	

†p<0.1 *p<0.05 **p<0.01

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Speech Act and Prosody Interaction during Listening Comprehension in L2ers: Evidence from an ERP Study

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During interpersonal communication, listeners must quickly evaluate verbal and vocal cues to elicit an integrated meaning about the utterance and about the speaker, including a representation of the speaker's intent or speech act (SA) (Hellbernd and Sammler, 2016). In this study, we investigated the time-course and neural responses underlying a listener's ability to evaluate SA from combined verbal and vocal cues. We recorded real-time brain responses as listeners heard three different types of SA utterances conveying three kinds of prosodic or intonation patterns, which follow immediately after the preceding relevant discourse contexts; Regel and Gunter, 2017; Steinhauer, 2003).

Seventeen Korean learners of English with an advanced level of English proficiency participated in this experiment. The experimental materials for our ERP study consisted of three different types of sentences (declarative (**D**), question (**Q**), and reprimanding/complimenting (**RC**)) with their corresponding prosodic patterns. Each type starts with one sentence contextually conducive to the introduction of another target sentence containing a critical item. The critical item (bold-faced below) is manipulated three ways, with one normal prosody or two other anomalous prosodies (Ladefoged and Johnson, 2010), thus each type composed of three conditions.

Type A: The prescription didn't match my name. The doctor who made that mistake is **Lavender**.
Type B: I didn't catch her name. Is her name **Lavender**?
Type C: We cannot accept any mistakes in the process. But you made one, **Lavender**.

The stimuli were presented auditorily. ERPs were measured at the critical elements such as ***Lavender*** in each type. In comparison between 'correctly used' three SA types, **Type B** was less negative than **Type A** and **C** in the N400 area. In analyses of the three types. there was a significant effect of type at the 150-250 ms interval (p=0.05), due to the difference between **Type A** and **B**; a marginal effect of type in the 250-500 ms (p=0.059), due to the difference between **Type A** and **B**; and a significant effect of type in the 500-700 ms (p<0.05), due to the difference between **Type A** and **B**.

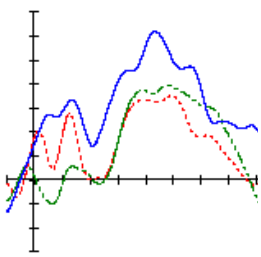
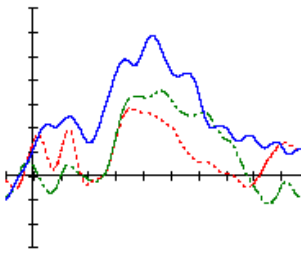
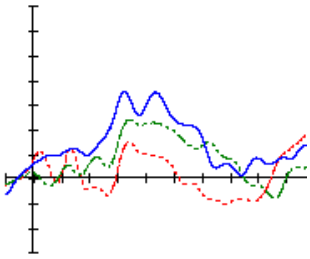
The results of the overall analysis of 3 conditions in each type are as follows. In **Type A**, there was a marginal effect (p=0.06) in the 250-500 ms, due to the difference between D and Q prosody conditions which yielded a marginal N400 effect (p=0.08) at anterior regions. In **Type B**, there was a significant effect (p<0.05) in the 250-500 ms, due to the difference between Q and D prosody conditions which yielded a reduced N400 effect (p<0.01) at anterior regions. Furthermore, in the 500-700 ms there was a significant effect (p<0.01), due to the difference between Q and D prosody conditions which yielded a reduced late N400 effect (p<0.01). In **Type C**, there was a marginal effect (=0.057) in the 150-250 ms, due to the difference between RC and D prosody conditions which yielded a marginal reduced P200 effect (p=0.056) at right regions, and also the difference between RC and Q prosody conditions which yielded a reduced P200 effect (p=0.05) at anterior regions.

The combined results show characteristic prosodic feature configurations for three different SAs that were reliably recognized by L2 listeners. Interestingly, identification of SAs was contingent on their type, and the difficulty in this process varied. Across types, Q-prosody SAs were easier to recognize than D- and RC-prosody ones. Within each type, (i) normal D-prosody SAs were more difficult to comprehend than anomalous Q-prosody ones; (ii) normal Q-prosody SAs were less difficult to process than anomalous D-prosody ones in the earlier interval, but the former registered difficulty in the later interval; (iii) normal RC-prosody SAs were less

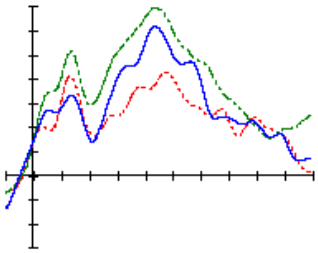
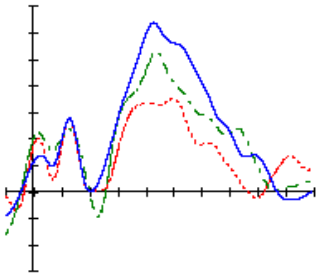
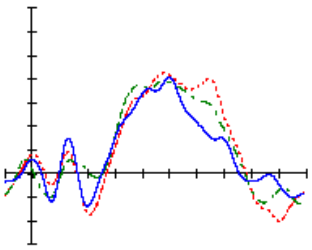
difficult to detect than the other two types of SAs. Overall, the data demonstrate that speakers' SAs are represented in the prosodic signal which can, thus, determine the success of interpersonal communication.

Materials

The results of 3 types

3 types : context matches with intonation on the last word	FZ	CZ	PZ
Type A Type B Type C			

The results of 3 conditions in each type

SA type / Type of intonation on the last word	Type A (declarative)	Type B (question)	Type C (reprimanding, directing, complimenting)
FZ			

Type A
Type B
Type C

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Poster Session

English locative inversion: A corpus-based study
Poster Presentation

English locative inversion (LI) is one of the constructions that are processed in noncanonical word order, as exemplified in (1) (Bresnan 1994, Kim 2003):

(1) a. Behind us [was] the door to the toilet. (COHA 1980 FIC)
b. At the hub [lies] the village square. (COHA 1959 MAG)

As shown in (1), the locative PP is preposed in the preverbal position, while the theme NP is placed in the postverbal position. Both the preverbal locative PP and postverbal NP have mixed properties. The locative PP, with topic properties, must function as a complement rather than an adjunct, whereas the theme NP, with focus status, behaves as the logical subject of the inverted clause or sentence (Kim 2003). With respect to the main verbs in locative inversion, they are limited to intransitive verbs, including passivized transitive verbs, but not all of them are possible (Bresnan 1994). The main verbs must present evoked or inferable information in the discourse (Birner 1994).

Most previous literature has mainly focused on the mixed properties of the preverbal PP and postverbal NP in locative inversion (Kim 2003). As to the verbs, some have analyzed different behaviors of locative inversion with unaccusative and unergative verbs via the operation of Heavy NP Shift (Culicover and Levine 2001), but not all kinds of possible verbs have been discussed.

To fill the research gap, this study aims to find out the usage of English locative inversion with all types of possible verbs by analyzing the grammatical properties of the preverbal PP, the main verb and the postverbal NP and accounting for the felicity of locative inversion with various verbs from the perspectives of heaviness and information structure. In doing so, this study makes use of authentic data collected from COHA (Corpus of Historical American English). 312 samples of locative inversion have been extracted from 5455 examples.

The results show us a variety of intriguing properties of locative inversion in American English. With respect to the preverbal PPs, 37 types of prepositions have been used, and both locative and directional prepositions are included. A locative preposition can be either projective (e.g., *behind* and *above*) or non-projective (e.g., *in* and *on*), whereas a directional preposition may introduce a source (e.g., *from* and *off*), a goal (e.g., *to* and *into*) or a route (e.g., *through* and *across*).

The corpus findings also provide us with some insights in the actual use of verbs in locative inversion. Four types of verbs are possible in English locative inversion: unaccusative verbs (e.g., *sit* and *come*), unergative verbs (e.g., *sleep* and *dance*), passive verbs, and copular *be*. Phrasal verbs are also encompassed in unaccusative verbs (e.g., *take place*) and passive verbs (e.g., *be hung up*). As to the core meanings of the possible verbs, the unaccusatives usually denote existence and appearance (e.g., *live* and *appear*), involuntary emission (e.g., *glow*), and change of location (e.g., *come*), or appear with a semantical-Patient subject (e.g., *lie*), whereas the unergatives generally show willed acts (e.g., *walk*) or involuntary bodily processes (e.g., *sleep*). The possible passives are those with meanings of putting (e.g., *be placed*), perception (e.g., *be found*), or creation (e.g., *be painted*).

Another notable fact of locative inversion concerns the postverbal NPs, the heaviness of which can trigger locative inversion and render it felicitous. This study takes both syntactic complexity and relative length of phrases as main factors to measure the heaviness of postverbal NPs. A postverbal NP containing a clause is syntactically complex, and a postverbal NP containing more words than the preverbal PP is relatively longer. The results show that only relative length independently plays a relatively significant role for the felicity of LI, because only 28% of the postverbal NPs are syntactically complex, while 88% of them are longer than the preverbal PPs.

The results also lend supports to the idea that information structure constrains the felicity of locative inversion. The information structure is analyzed by employing discourse familiarity (discourse-old/discourse-new). The results show that nearly all the instances are in the 'PP-old, NP-new' pattern. That is, the preverbal PP tends to present old information, which has already been mentioned or can be inferred from the preceding discourse, whereas the postverbal NP tends to present new information, which has not been evoked by the preceding discourse. Such pattern corresponds to the topic status of preverbal PP and focus status of postverbal NP, rendering locative inversion felicitous.

The corpus findings overall suggest that 1) both locative and directional prepositions are possible in the preverbal PPs, 2) four types of verbs may occur in locative inversion and phrasal verbs are included, 3) the postverbal NP tends to be longer and discourse-older than the preverbal PP, rendering locative inversion felicitous.

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Paraphrasing Training Data for Neural Machine Translation System Between Korean and English

Poster Computational Linguistics

Guehyun Wang & Sanghoun Song

Abstract

Machine translation is a major task of natural language processing in that it calls for analysis and generation of different human languages. However, because a large amount of parallel corpus were needed for a good machine translation model, there was a limit to machine translation performance in language pairs that did not have large parallel corpus. Thus, in order to improve the performance of the translation model between Korean and English(koen) and English and Korean(enko), which does not have sufficient data size, this study tried to expand the data through paraphrasing, and compared the performance of neural network machine translation models based on unexpanded data with the performance of the neural network machine translation models trained through extended data by paraphrasing.

About machine translation system, the belief that the greater data size, the better the performance of the machine translation results, served as a credential to statistical machine translation system. However, there is an opinion that neural machine translation is less dependent on data size than statistical machine translation in that neural machine translation models can learn the grammatical knowledge from training data more efficiently. In this study, the neural machine translation system was built using two different architecture: the Long Short-Term Memory (LSTM) and the Transformer.

This study used Korean-English parallel corpus provided by A.I hub. The data was divided into 100k, 200k, and 400k size and paraphrased for each data size. About paraphrasing, only English sentences was paraphrased using ERG (English Resource Grammar) based on Head-Driven Phrase Structure Grammar (HPSG). This study trained a total of 24 machine translation models with differ data size, paraphrasing, model architecture and source to target language pairs(enko & koen). BLEU score was used to evaluate all translation model's performance.

As a result, the translation models based on paraphrased data had low BLEU score. For a more accurate evaluation of model performance, translation performance experiment on people will be conducted.

Abstract

Temporal Anaphora and Lexical Aspect

This study presents a picture of how lexical aspect influences the reference time and temporal domain selection in temporal anaphora. Since Partee (1973) proposed that tense is parallel to pronouns, including anaphoric ones, several have extended her viewpoint and provided an analysis of temporal anaphora: tenses in a series of utterances are treated in a fashion that DPs are treated in such analyses and the determination of reference times is shown to be a key issue (Partee 1984, Bohnemeyer 2009, Demirdache and Uribe-Etxebarria 2014, Reichenbach 1947, Klein 1994).

Not only does this study confirm the importance of reference times in temporal anaphora, it also proposes that 1) times denoted by tenses involved in an accomplishment predicate whose running time is relatively long serve as a temporal domain for the following utterances, that 2) a time denoted by a tense in the previous utterance may serve as a temporal antecedent for the following tenses, and that 3) a temporal locating adverbial may also serve as a temporal domain for the following utterances.

Times denoted by temporal locating adverbials and tenses related to acts of relatively longer duration serve as a temporal domain within which tenses are interpreted as well as a reference time in a discourse. During the process, the context lists previously denoted times as salient and those times are available for temporal interpretation in the following utterances. Such an analysis may not nullify a quantificational interpretation of tense (Prior 1967, Montague 1973, Ogihara 1996); however, those tenses which denote salient times in the context certainly bear an indexical interpretation.

Abstract

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An Interface Approach to the Scope Ambiguity in Right Node Raising Constructions in English

Poster (Syntax)

A Right Node Raising (RNR) construction is a coordinate structure, in which a constituent related to both conjuncts only occurs in the final conjunct as in (1).

(1) Mary likes, and John hates, basketball.

Previous approaches to RNR can be divided roughly into two groups: the in-situ and the ex-situ analyses (Abels 2004). The ex-situ approaches consider the shared element as remaining outside of the coordinate structure, whereas the in-situ analyses regard the RNRed target as being internal to the coordinate structure.

One of the interesting properties in RNR is scope ambiguity. Sabbagh (2007) observes the possibility of the inverse reading as in (2).

(2) Some nurse gave a flu shot to, and administrated a blood test for, every patient who was admitted last night. (some < every, every > some)

Such scopal behaviors seem to be explained under the ex-situ approach (such as across-the-board (ATB) movement (Sabbagh 2007, 2008 among others)) as the shared element ultimately remains above the coordinate structure to have the wide scope reading of the universal quantifier. However, Larson (2012) suggests the conflict case (3), which contains a verbal morphological mismatch and scope ambiguity at the same time. Morphological mismatches are problematic to the movement approach as the shared element should be identical under this analysis.

(3) Some woman must, and some man ought to be, working with every student.

Ellipsis (Ha 2008 among others), one of the in-situ approaches, can deal with morphological mismatches as the constituent in the initial conjunct is deleted under identity with the shared material in the final conjunct. However, the wide scope reading of a universal quantifier is a challenge for the deletion approach as it assumes the shared target as being internal.

To solve this puzzle, I propose that covert ATB Quantifier Raising can be allowed in RNR, arguing that this is designed to obtain a single-identity reading (following Ha 2008). In

particular, I explain the interactions between information structure and quantifier scope. Thus, this paper is concerned with providing evidence in favor of a PF-deletion approach accompanied with LF-movement to RNR. The interface approach to RNR can show that this construction can be understood as a combination of syntactic and after syntactic processes.

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Much less construction in English: A corpus-based perspective
Poster Presentation

Much less construction coordinates two sentence where they are. The construction is a kind of a kind of focus sensitive coordination (FSC) structure. FSCs generally consist of a full clause followed by a phrase introduced by a coordinator (in English: *much less*, *let alone*, or *never mind*), and there are diverse constraints on their grammatical use (Fillmore et al., 1988; Harris, 2016; Hulsey, 2008; Toosarvandani, 2010). The coordinator is typically licensed only in negative environments, questions, or in contexts implying pragmatic adversity, in a distribution similar to negative polarity items (Fillmore et al., 1988). And, what *much less* construction is similar to is another coordinator *let alone.* So we also focus on ellipsis in its phrase or sentence and contrast them.

(1) a. Accordingly, my questions about the historicity of the Exodus, *much less* **(my questions about)** the revelation at Sinai, become a challenge to the faithful, who are not about to be suckered by a world weary cynic.

b. You need more than one great player to win in any playoff series, *much less* **(you need more than one great player to win)** against a championship outfit like the Warriors.

The two sentences in the example (1) have the coordinator *much less.* The coordinated sentences have ellipsis, and the elided phrase or sentence is similar to antecedent's one.

(2) a. We have had high culture and perfect Democracy with zero corruption (the 1st Republic) that was crushed under the hooves of marauding invaders with no concept of civilization, *let alone* **(with no concept of)** democracy. (COCA 2012 BLOG)

b. you've been this way for so long, you simply can not recognize it, *let alone* **(you simply can not)** recognize what is wrong with it. (COCA 2012 BLOG)

Likewise, *let alone* construction have also ellipsis structure. Seemingly, two constructions are similar in terms of they have negative polarity items and they can't use the items in the coordinate sentence. *Much less* and *let alone* is licensed under negation and other downward entailing environments, much like negative polarity items like any or ever (Ladusaw, 1979)

The main difference between two is fronting. If we put *much less* at the beginning of the sentence, the sentence is ungrammatical, while *let alone* isn't.

(3) * Much less / Let alone the after party, John won't come to party.

To see why ellipsis on its phrase and sentence, and to investigate its difference between two in their meanings, we investigate the authentic uses of *much less* and *let alone* in English using the corpus, COCA (Corpus of Contemporary American English). We first extract all the instances of two constructions with the presence of both phrase and sentence. It is because I think there are some differences on their form and function. I will investigate and indicate the construction to filter out the similarties and differences in a systematic way, based on a comprehensive empirical search.

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Children's acquisition of *what about* and *how about* constructions: A corpus-based perspective

Jeongyun Park and Jungsoo Kim (Kyung Hee University)

English has two different, but superficially similar irregular *wh*-questions, referred to as *what about* and *how about* constructions, as exemplified in (1) (Quirk et al. 1985; Shopen 1974):

(1) a. What/How about [one more beer]?
    b. What/How about [coming over to my lab]?

These two constructions are characterized as typically involving a noun phrase (NP) or an *-ing* verb phrase (VP[-ing]) dependent and being interchangeably used to make requests, suggestions, and invitations (Quirk et al. 1985; Shopen 1974; Malá 2000; Sonoda 2009). These two constructions are under the umbrella of irregular *wh*-questions, because they show different grammatical properties from canonical *wh*-questions in terms of syntax and semantics/functions (Quirk et al. 1985). For example, unlike canonical *wh*-questions, these two constructions cannot appear in embedded environments (e.g., **I wondered what/how about one more beer.* vs. *I wondered what John drank.*). In addition, even though the two constructions can be used as pure inquiries, they do not introduce variables and thus their appropriate answers cannot be the values for them as opposed to canonical *wh*-questions (e.g., *How about your parents? Are they well?* vs. *Q: What did you drink last night? A: Some good beer.*)

Children's acquisition of canonical *wh*-questions has been extensively discussed in previous literature in terms of the acquisition order of *wh*-expressions and structures, the presence/lack of subject-auxiliary inversion (SAI), and the role of main caregivers' language input (Rowland et al. 2003; Ambridge et al. 2006; Van Valin 2014). However, children's acquisition of irregular *wh*-questions has received little attention (e.g., *How come you're so late?*, *Why (not) listen to him?*, *What if it rains?*). In addition, most previous literature has mainly focused on the similarities of the two constructions under question (Quirk et al. 1985; Shopen 1974; Malá 2000), although some differences have been noted as well, in particular, with respect to their inferred illocutionary force (Gottschalk 1992).

In this regard, this study aims to investigate how children acquire these two constructions, focusing on whether children display the same acquisition process of the two constructions and if not, in what respects the two constructions exhibit different behavior in children's acquisition of them. At the same time, this study also attempts to touch upon the issue of the role of main caregivers' language input in children's acquisition of the two constructions. In doing so, this study makes use of longitudinal data for ages 2-5 from seven American English-speaking children, Abe, Adam, Emma, Mark, Matt, Roman, and Ross, extracted from the CHILDES (Child Language Data Exchange System) database.

The corpus findings, in fact, provide us with some insights in children's actual uses of the *what about* and *how about* constructions and the acquisition processes of them. First, overall, the children used the *how about* construction much more frequently than the *what about* construction (66 instances of the *what about* construction vs. 218 instances of the *how about* construction). The same frequency tendency was seen in their main caregivers' uses of the

constructions. In other words, their parents also used the *how about* construction more frequently than the *what about* construction (413 instances of the *what about* construction vs. 466 instances of the *how about* construction), although the difference was more salient in the children's data. This frequency tendency is interesting, since it is opposite to the one in other balanced corpora such as COCA (Corpus of Contemporary American English) and BYU-BNC (British National Corpus).

Another notable fact about the children's uses of the two constructions concerns the frequency numbers of the examples, depending on the types of dependents. For one thing, the children used the two constructions with an NP dependent most frequently; however, they showed a clear difference in their uses of the two constructions with a VP[-*ing*] dependent in that they used the VP[-*ing*] dependent more frequently in the *how about* construction (16 instances) than in the *what about* construction (1 instance). Related to this, a more remarkable observation was made with regard to the types of dependents that denote a proposition (i.e., clause, finite sentence, VP[-*ing*], VP[base]). While these types of dependents took up one-third of all instances in the *how about* construction (71 instances), only 2 instances were observed in the *what about* construction. The same frequency tendency was noted in their main caregivers' data (29 instances of the *what about* construction vs. 77 instances of the *how about* construction), even though it was more prominent in the children's uses of the constructions. These together imply then that the children did not acquire the uses of the *what about* construction with the dependents that describe a proposition until they reached the age of 5, despite some input from their main caregivers.

One more striking observation about the children's uses of the two constructions has to do with the preferred functions associated with them. The children used the *what about* construction examples with an NP dependent as pure inquiries more preferably than as suggestions (51 pure inquiries vs. 8 suggestions). On the other the hand, they used the *how about* construction examples with an NP dependent as suggestions more preferably than as pure inquiries (101 suggestions vs. 36 inquiries). These results indicate that the children used the two constructions to achieve different communicative goals.

The corpus findings overall suggest that 1) children use the *what about* and *how about* constructions with different major functions, 2) that they do not develop the same acquisition processs of the constructions, 3) and that main caregiver's language input may play a certain role in children's acquisition of the constructions.

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A collexeme analysis of verb-class-specific constructions: In the case of *away at/on* conatives

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It has been well noted in literature that certain transitive verbs can enter into the *at/on* conative alternations, as exemplified in (1) (Levin 1993; Adams 2001; Kim 2018):

(1) John hammered (at/on) the nail.

As shown here, transitive verbs like *hammer* can have their conative alternants. Syntactically, the object in the transitive construction is realized as a PP headed by at or on in its conative counterpart. Semantically, although early studies on this topic (Levin 1993; van der Leek 1996) have proposed that only those verbs that have meanings of both motion and contact can participate in the *at/on* conative alternations, subsequent studies have provided examples that contradict with the view resorting heavily on these two meaning components and pointed out that they need to be classified into sub-types (Broccias 2003; Perek 2014; Kim 2018).

Interestingly, there are also transitive verbs that can participate in the *away at/on* conative alternations, as demonstrated below:

(2) a. John rubbed (away at) the counter.

b. John chewed (away on) a piece of straw.

Overall, much less attention has been paid to the *away at/on* conative constructions as in (2) than the *at/on* conative constructions as in (1). For instance, the *away at* conative construction has been mentioned just as a subtype of the *at* conative construction (van der Leek 1996; Broccias 2003). In addition, the *on* conative construction has been only briefly described as a variant of the *at* conative construction and there has been no independent work focusing on the *away on* conative construction.

To fill the research gap, this study aims to investigate what the collexeme verbs in the *away at/on* conative constructions tell us about grammatical properties including their core meaning(s) and how the two constructions are used in real life. In doing so, this study makes use of authentic corpus data extracted from the COCA (Corpus of Contemporary American English) and adopts the collexeme analysis methodology, using Coll.analysis 3.5.1, an R program coded and provided by Stefan Gries, with the one-tailed Fisher-Yates exact test to compute association strength (Stefanowitsch and Gries 2003).

The results show us a variety of interesting linguistic properties of the constructions under discussion. First, overall, the collexeme verbs in the *away at/on* conative constructions can be broadly classified into four sub-classes depending on their meanings: *ingest*, *cut*, *hit*, and *touch*. Next, the *away at* conative construction occurs much more frequently than the *away on* construction and more verbs license the former than the latter. The results also demonstrate that the *away at/on* conative away constructions each do not seem to attract a particular class of verbs that characterizes their core meanings. The 10 strongest collexeme verbs in the two constructions each indicate that verbs like *chip*, *hammer*, *pound*, and *tap* are strong collexemes in

both of them; however, *eat* is a strong collexeme verb only in the *away at* conative construction while *puff* is a strong collexeme verb only in the *away on* conative construction. This suggests that although the two construction may be similar to each other in some respects, it is hard to argue that the latter is just a mere subtype of the former.

The results, in fact, lend further support to the idea that the *away on* conative construction is not just a subtype of the *away at* conative construction. In particular, some verbs display different meaning/usage preference patterns in the two constructions. For example, most examples with *saw* involve the actual meaning of *cut* in the *away at* conative construction; on the other hand, most examples with the same verb involve an extended figurative meaning in the *away on* conative construction (e.g., *He opened a clasp knife and sawed away at the ropes binding Jan* vs. *... his mother sawed away on a violin*). In addition, with the *ingest* class verbs, the neutral verb *eat* is the strongest collexme verb in the *away at* conative construction followed by those with a bit-by-bit meaning while those with an anti-bit-by-bit meaning are the strongest collexeme verbs in the *away on* conative construction (e.g., *As a result, acid rain continues to eat away at forests* vs. *These small, quiet creatures spend their days munching away on your kitchen scraps, making good, rich fertilizer for your garden*).

Some additional intriguing properties are observed from the results when we look at verb-class-specific constructions independently. For instance, in the *away on* conative construction, the *ingest*, *hit*, and *touch* class verbs are more preferably used in a literal manner than in a figurative manner but the opposite pattern is found with the *cut* class verbs (e.g., *He's just crazy enough to grind away on a case like this for six years*. vs. *Earnest butchers hacked away on massive wood blocks*). Next, in the *away at* conative construction with the *ingest* class verbs, the neutral verb *eat* and those with a bit-by-bit meaning like *nibble*, *gnaw*, and *chew* are predominantly used in a figurative manner than in a literal manner; however, those with an anti-bit-by-bit meaning such as *munch* and *chomp* do not show such a biased tendency (e.g., *Time nibbled away at her looks* vs. *The old lady was chomping away at the ham sandwich*).

The aformentioned findings, therefore, suggest that it is worthwhile exploring properties related to collexemes based on verb-class-specific constructions with authentic corpus data and statistical tests and that way we can make important observations that simple introspection-based studies are likely to miss out.

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On Korean ESL Learners' Overuse and Underuse of English Perfect Aspect

The study is designed to investigate the certain English grammatical aspects overused and underused by Korean ESL learners. According to the corpus data, it turned out that Korean ESL learners in general tend to underuse certain English verbs in their perfect forms while also overuse other certain verbs in their perfect forms. Based on the corpus data, the study applies the method of collostructional analysis (Stefanowitsch & Gries 2004) to shed light on the overuse and underuse phenomena of English perfect aspect that can be found from certain verbs. It is assumed that the 20 English verbs underused in their perfect forms are mostly achievement verbs and accomplishment verbs which denote actions or temporary events that have a starting point and an end point. In other words, in terms of telicity, these underused 20 verbs in general seem to have a clear end point. On the contrary, it is assumed that the 20 English verbs overused in their perfect forms are mostly activity verbs or state verbs which are typically atelic. This kind of contrast over telicity seems to affect Korean ESL learners when it comes to their use of English perfect aspect. The paper tentatively concludes that Korean ESL learners tend to underuse the 20 telic verbs in their perfect forms due to their having a clear end point. Korean lacks the grammatical system which exactly corresponds to English perfect aspect and this might lead Korean ESL learners to prefer the simple past in order to evince a clear end point. In case of the 20 atelic verbs that are overused in their perfect forms, it seems their atelic characteristic played a role, leading Korean ESL learners to overuse the perfect aspect to stress their relevance to a later time.

On the Grammatical Functions of *Man* as a Discourse Marker

Purpose of this study

In the studies of language change, the concept of grammaticalization refers to the process of the grammatical changes of that lexical item, according to Croft (2006: 366). Typically, a lexical word can be divided into the grammatical (or function) words just describing the relationship of words and the content words delivering a specific lexical meaning. Certain words denoting an action or an object, for instance, can become grammatical markers, thereby creating the new words functioning as a grammatical word that derives from the content word. For example, word strings such as *going to* and *in back of* become a unit by undergoing the change of meaning from an action and body part to a unit. The well-known illustration is the process of the bi-grams *let us*, where the meaning of 'allow us' changed into that of 'suggestion' functioning as a modal auxiliary. This study is intended to investigate the process of the grammaticalization of the lexical item ***man***, focusing on the grammatical functions as a discourse marker. As is well known, the word *man* seems to have various changes in meaning (or function), as shown in (1).

(1) a. I turned around and saw a handsome **man** about my age. (COCA 2014 FIC)
b. it's true that all **men** must die, as the show's promos say. (COCA 2016 NEWS)
c. We got a fish, **man**, an edible fish. (COCA 2000 TV)
d. Come on, **man**, grow up, man up. (COCA 2012 BLOG)
e. **Man**, you guys in NYC are lucky. (COCA 2012 BLOG)

The word *man* in (a) denotes an adult person who is male, while (b) refers to all human beings, which are used as a content word. In contrast, the *man* in the examples (c)-(e) signifies a particular function appropriate for the contexts (or discourse), but not any concrete referent. Discourse markers typically refer to the expressions that take a role of controlling the information flow or structure inside or outside the sentences. They do not contribute to the truth conditional meaning of the sentence, just connecting what is said with the context. This word *man* seems to be used as a fixed expression, in the sense that it does not take a plural form. The previous studies on the grammaticalization of the *man* have yet not been found. The major goals of the study are two-fold: to examine the process of the grammaticalization of the word *man,* focusing on the uses of discourse marker and to identify the grammatical functions as a discourse marker.

Data and Methodology

This study analyzes the grammatical uses of the word man with two different aspects: corpus-based and statistical analyses. As a first step, this study collected one thousand sample data from COCA and COHA, thereby checking if there are any historical changes in grammatical functions as a discourse marker. This study investigates the grammatical properties mainly by positing the variable in three linguistic properties, as in (i)-(iii). We adopt the Maschler (1998) classification as the variables of discourse function, as in (iii).

(i) distribution in sentence: initial, median, final
(ii) sentence mood: declarative, interrogative, imperative, exclamative
(iii) four discourse functions: interpersonal (perception, agreement, amazement),
referential (causality, coordination),
structural (organization, introduction, summarize),
cognitive (processing, realization, rephrasing).

As a second step, this study provides statistical analysis by using Fisher's Exact Test, where we adopt one-tailed as well as two-tailed tests. This step would help check whether the results of this study can also be statistically significant, chiefly comparing the correlation between these variables.

Discussion

As a preliminary work, this study has examined the five hundred sample data from COCA, checking the characteristics shown in the distribution and sentence moods that the word *man* can occur in a sentence. Table 1 shows that the word *man* as a discourse marker is most frequently used in the declarative sentences. Table 2 indicates that the most frequently used position in a sentence is an initial position.

Table 1. Frequency by sentence mood

No.	Sentence Mood	Frequency	Ratio
1	declarative	352	71%
2	interrogative	63	13%
3	exclamative	35	7%
4	imperative	47	9%
	Total	497	100%

Table 2. Frequency by position

No.	Position	Frequency	Ratio
1	initial	340	68%
2	median	147	30%
3	final	10	2%
	Total	497	100%

As a discourse marker, the word *man* tends to be used with the following expressions, as if they were one cluster, thereby forming a collocation. Through Table 3, we can more exactly identify the discourse function of the word *man*.

Table 3 Frequency of collocates

No.	Collocates	Frequency	Ratio	No.	Collocates	Frequency	Ratio
1	oh	87	28.9%	13	sorry	4	1.3%
2	hey	58	19.3%	14	gods	3	1.1%
3	come on	29	9.6%	15	hell	2	0.7%
4	look	27	9.0%	16	Shit	2	0.7%
5	no	23	7.6%	17	you know	2	0.7%
6	Yeah	20	6.6%	18	Hi	1	0.7%
7	Listen	9	3.0%	19	Oh, no	1	0.3%
8	All right	8	2.7%	20	Okay	1	0.3%
9	Yo	8	2.7%	21	Well	1	0.3%
10	Aw	6	2.0%	22	you guys	1	0.3%
11	damn	4	1.3%	Total		301	100.0%
12	Nah	4	1.3%				

As a second work, this study would examine (i) whether there is any correlation between distribution (Table 2) and sentence mood (Table 1), and (ii) how many different functions are there as a discourse marker, and (iii) whether there are any historical changes in the uses of discourse marker.

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Politeness in Essay Writing
by Korean Male and Female High School Students

(poster / pragmatics)
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This study tried to investigate the different use of hedges by Korean male and female high school students. It could be found out which group used more hedges and showed more politeness in their essay writing by examining the diversity and amount of hedges. The participants were 40 male and 40 female high school 1st grade students from Incheon. Each student wrote one essay about their dream and the hedges which were used in their writing were analyzed. Not to make their proficiency affect the use of hedges, EBS listening test result was used to confirm that the male and female students have similar proficiency. It was found out that the correlation for hedges and writing ability was significantly higher than the correlation for hedges and gender of the students. Students' use of hedges was more associated with capacity of students' writing than their gender.

Keywords: hedge, gender, proficiency, writing

The use of hedges and intensifiers in English argumentative essays:
Comparison between Vietnamese EFL learners and native speakers of English.

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The aim of this research is twofold. First, this paper examines the use of hedges and intensifiers in the English argumentative essays written by Vietnamese learners and native English speakers. Second, it investigates the correlations between these two linguistic devices and the writing quality.

To achieve this goal, the researcher analyzed essays from three groups of participants: 30 advanced Vietnamese EFL learners, 30 intermediate Vietnamese EFL learners, and 30 native English speakers. The students were given 50 minutes to write an argumentative essay responding to the question: "Should people be allowed to obscure their identities online?".

By combining quantitative and qualitative analysis, the research came up with some major findings. First of all, there was no significant difference between the native English speakers and Vietnamese EFL learners with regard to the frequency of hedges. However, the Vietnamese students from the advanced proficiency group showed more similarities to the native English speakers than those from the intermediate group. Students with lower levels of English proficiency had a tendency to use fewer hedges in their essays, which could be explained by cultural factors, their limited proficiency in English, as well as their unfamiliarity with the writing conventions of the genre.

With regard to the types of hedges, epistemic, lexical and possibility hedges were found to be the most frequently used hedging devices in the essays of three groups. In addition, while the frequencies of epistemic hedges, possibility hedges, and adverbs of frequency were comparatively similar across groups, those of lexical hedges, downtoners, and assertive pronouns were statistically different.

Compared to hedges, the number of intensifiers in the students' essays was much lower. In addition, even though the differences between the participant groups were not statistically

significant, it was found that native English speakers and advanced EFL students had a tendency to use fewer intensifiers than low-level EFL students.

Regarding the correlations between the use of hedges and intensifiers and the writing quality, while hedges had positive correlations with the writing scores, intensifiers were negatively correlated with the writing quality. This was because in Anglo-American culture, hedging devices were frequently used in argumentative essays to tone down claims, while intensification is generally avoided because it could reduce the texts' credibility (Leech, 1983).

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Propositional as-parentheticals in English: A corpus-based perspective

Poster Presentation

Propositional as-parentheticals are incomplete parenthetical clauses introduced by the morpheme *as*, containing a CP sized gap and take propositional-denoting antecedents, as exemplified in (1) (LaCara 2016; Potts, 2002a, 2002b):

(1) a. As you might expect, Shane was upset. (2002 COCA: MAG)

b. We can't, as you know, just let him go. (2015 COCA: FIC)

c. The whole thing is surreal, as you can imagine. (2017 COCA: NEWS)

The syntactic and semantic properties of propositional as-parentheticals have been extensively discussed in previous literature. Syntactically, propositional as-parentheticals mainly consists of four elements: the morpheme *as*, a noun phrase, a verb phrase and a gap. Propositional as-parentheticals must adjoin to their antecedents, because the location of gaps is restricted (LaCara 2016; Potts, 2002a, 2002b). Semantically, mainly adopting the ideas of Potts, LaCara and Griffiths, propositional as-parenthetical is not part of the main assertion of the clause, rather, the material in propositional as-parentheticals is conventionally implicated. The semantic content of the propositional as-parenthetical is the semantic content of its argument and nothing more. However, the real usage of propositional as-parenthetical in corpus has received little attention.

In this regard, this study aims to investigate the real usage of propositional as-parenthetical in corpus. To understand the propositional as-parentheticals in a better way, I conduct a corpus search, which can lead us to find the real data. In the COCA corpus, I have randomly extracted 300 examples of propositional as-parentheticals from a total of 2056 examples of as-parentheticals. I observed that the syntactic and semantic properties of this grammatical structure in corpus are the same as those mentioned in the previous literature. The propositional as-parentheticals appear in different situations with different frequency, including MAG, WEB, NEWS, BLOG, FIC, SPOK, ACAD, TV and MOV. The construction occurs most frequently in the registers SPOK. Next, I find out the different types of verb phrase and noun phrase in propositional as-parentheticals, to figure out them with statistic and to classify the types in this construction. The auxiliary verb appears almost twice as often as the main verb. Of all the different verbs, the most frequent is *say*, followed by *know* and then *suggest*. The nouns of propositional as-parentheticals can be divided into three categories: pronoun, proper noun and common noun. Pronoun appeared the most frequently, followed by proper noun, and finally the

common noun. What's more, pronoun appeared in the propositional as-parentheticals twice as often as proper noun.

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A- or-not? Alternative Questions and their Answers : A corpus-based perspective

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The polar alternative questions in English allow alternatives of a positive counterpart, as illustrated by the following corpus examples from COCA (Corpus of Contemporary American English):

(1) a. Are you committed to saving lives *or not*? Yes, I'm committed. (COCA 2011 TV)

b. Have you talked to him *or not*? Yes, we have. (COCA 1993 MOVIE)

In these examples, the standard function of the answer *yes* is to confirm the positive propositions (1) evoked by the polar alternative questions (Hamblin 1973; Karttunen 1977; Rodney Huddleston & Geoffrey K. Pullum 2003; Kim 2016).

The goal of this paper is to identify other uses of the positive particle *yes* in English together with the one billion words of COCA corpus. Corpus examples yield many uses against the standard confirmation function of *yes*:

(2) a. Can you do it *or not*? Yes, *but* it'll only work once. (COCA 1996 TV)

b. Do you want to your laser corrective surgery *or not*? Yes, *but* can't we wait until tomorrow? (COCA 1999 TV)

In these examples, *yes* does not confirm the negative proposition of the polar alternative question: it just confirms the positive proposition. However, there is the use of *but* is implied a repudiation in positive terms. The force *but* can be emphasized by the complement clause in (2b), whose uses we find in languages (e.g., Chinese, Korean, Japanese) with the so-called truth-based system (Jones 1999).

In addition to these complexities, the corpus data show us other uses of *yes*: to confirm a positive assertion or polar alternative question, to agree with the positive as well as negative context of agreement, or the parametric differences of the different utility of answering *yes, 'Do you want to come with us or not*? *Yes, I want it.'* on which is equal the value of the negative answer (in the context of the speaker's desires is always neutral). In this paper we also investigate the uses of *yes* with respect to the types of antecedent and a type of anaphoric expressions which can make interpretation by the surrounding contextual environment (see Bolinger 1978; Tian and Ginzburg 2006; Holmberg 2016; Kim 2016). Our investigation reveals the of grammar, in particular, between the lexical semantics of the particle and discourse information.

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Plenary Talk 4

Inflectional, periphrastic and multiple comparatives in English: making variation *more neater*

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Abstract

This study presents an exploration of inflectional (*easier*) and multiple comparatives (*more easier*) in six inner-circle varieties of Present-Day English. The characterisation of the multiple comparative as a marked alternative to the (single) inflectional comparative paves the way for the statistical modelling of a database of approximately 4,500 inflectional and multiple comparatives retrieved from the GloWbE corpus. The analysis focuses on a set of factors commonly found to influence the inflectional versus periphrastic comparative alternation. The results reveal a limited number of strong predictors and a twofold functional profile of the multiple comparative as a by-product of maximal salience and grammatical conversion to the periphrastic comparative. This dual functionality arises as a result of the exaptation process undergone by *more*, which loses its role as a degree marker and takes on that of the grammatical item responsible for adapting the syntax of an already inflected comparative to the linguistic requirements of the periphrastic alternative. The data also reveal that the inflectional versus multiple comparative alternation is subject to dialectal variation and the lexical idiosyncrasy of the adjective involved, possibly as a result of the frequency and/or degree of entrenchment of the adjective in comparative constructions.