

한국영어학회 2019 년 봄 학술대회

영어학 연구와 교육의 새로운 방향 모색

주 최: 한국영어학회

후 원: 광운대학교 영어산업학과 /

[언어 학습의 통사구조 적응과 일반화 연구팀] /

[L2 대화 상호작용에서의 화행의 신경 역학 연구팀]

일 시: 2019년 5월 25일(토), 09:00~17:50PM

장 소: 광운대학교 참빛관

모시는 말씀

날씨가 더워지고 있습니다. 늘 평안하시고 하시는 일마다 행운이 항상 함께 하시길 기원드립니다.

한국영어학회 2019년 봄학술대회가 다음주 토요일(5월 25일) 광운대에서 개최됩니다. 이번 학술대회는 영어학 제 분과들이 균형있게 발표(개인발표 27편)에 참여할 수 있도록 노력해 보았습니다. 또한 영어학 논문발표의 국제화를 지향하면서, 초청학자를 한-중-일-미 등 4개국에서 초청하였습니다. 병행하여, 개인논문 발표자의 1/2(14편)이 영어로 발표가 이루어질 수 있도록 했습니다. 그리고 이번 학술대회의 초청특강은 [영어학과 데이터사이언스], [전산신경/심리언어학] 등 최근 많은 관심을 받고 있는 이슈로 영어학 전공자들에게 도움이 될 수 있는 주제로 준비하였습니다.

오늘 선생님들께서 시간을 내시어 이번 학술대회에 참석해 주셔서 감사합니다. 오늘 학술대회 특강 및 발표에서 코멘트, 질의를 통해 적극적으로 토론에 참여해 주시고, 앞으로의 연구 및 교육에 크고 작은 도움이 될 수 있기를 바라겠습니다. 오늘 학문 연차에 즐거운 하루 보내시기 바랍니다.

2019년 5월 25일

한국영어학회장 올림

한국영어학회 2019년 봄 학술대회
영어학 연구와 교육의 새로운 방향 모색

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장 소: 광운대학교 참빛관

시간	순 서			
09:00~09:30	등 록			
09:20~09:30	개회식 B101			
	개회사: 박명관(한국영어학회 회장) / 환영사: 김선웅(학술대회 조직위원장)			
09:30~10:20	Invited Talk-(1), B101호: 좌장 김선웅 (광운대)			
	한수미 (한림대)			
	영어학과 데이터 사이언스의 접목: 교과과정 설정과 전망			
10:20~10:35	휴 식			
	(L2) Processing 좌장: 이은경 (서울대) B101호	통사론·형태론 좌장: 박동우 (한국방송통신대) 105호	의미론·화용론 좌장: 지인영 (한국체대) 106호	응용언어·영어교육 좌장: 정채관(KICE) 107호
10:35~11:00	김유래 (동국대) The Neuro-dynamics of Speech Acts in L2 Conversation	최선주 (동국대) Restrictions on Extraction out of VP Ellipsis [E]	강아름 (고려대) The intensifier at the discourse level: the case of <i>wancen</i> 'totally'	김태국 (인제고), 정채관 (KICE) 코퍼스 기반 감정고시 영어 어휘 분석 연구

	: An Eye-tracking Study [E]			
11:00~11:25	<p>백순도 (국민대)</p> <p>A close look at the processing difficulty of English object relative clauses: An L2 study [E]</p>	<p>유용석 (해군사관학교)</p> <p>A labeling account of possessor extraction in English [E]</p>	<p>이주원 (경희대)</p> <p>On semantics of English verbs of killing</p>	<p>신민채, 이준규 (한국외대)</p> <p>Needs analysis of Korean EFL learners' comprehensibility</p>
11:25~11:50	<p>정은선, 신정아 (서울시립대, 동국대)</p> <p>Real-Time Interpretation of Sentences Containing Quantification and Negation in English by Korean learners of English [E]</p>	<p>이우승 (건국대)</p> <p>Meeting VP Ellipsis identity derivationally [E]</p>	<p>송상현 (고려대)</p> <p>영어연구자를 위한 딥러닝 환경 첫걸음: Colab 튜토리얼</p>	<p>홍신철 (부산외대)</p> <p>학습자 코퍼스 기반 아시아 학생의 지시대용어 분석</p>
11:50~12:00	<p>연구윤리교육: 최근 연구윤리 부정 사례를 중심으로, B105호 정채관(KICE)</p>			
12:00-13:00	점 심			
	(L2) Processing	사회언어학	의미론·화용론	

	좌장: 백순도 (국민대) B101호	좌장: 백경숙 (한양여대) 105호	좌장: 송상현 (고려대) 106호	응용언어·영어교육 좌장: 임효정(광운대) 107호
13:00~13:25 50	정원일, 서혜진, 박명관 (동국대) L2 comprehension of information structure: An ERP study [E]	Jennibelle R. Ella (De La Salle Univ) Investigating the Use of Multi-word Verbs in Philippine English [E]	<u>**의미화용론</u> <u>초청특강**</u> 김용범 (광운대) A Force-dynamic Approach To Modality	이혜경 (아주대) Lexical bundles in linguistics core textbooks
13:25~13:50	윤홍옥, 이은경 (제주대, 서울대) The role of frequency in the processing of giving and receiving events in Korean [E]	Richard M. Rillo (Centro Escolar Univ) <i>American or British?</i> A corpus-based analysis of Asian Englishes' orthographical norms [E]		민주영(호서대), 박지현(경인교대), 임효정(광운대) 모바일 애플리케이션을 활용한 영어 어휘 학습 효과
13:50~14:15	Philip Jung (동국대) Selective Integration of Linguistic Knowledge in Korean	Edward Jay M. Quinto & John Christopher D. Castillo (Mapúa Univ) 'An English teacher who teaches English': A new language	조윤경 (목포대) Apposition and Dependence	신혜원 (Impact Research Lab) Using Listening-Based Instruction to Improve Young

	Learners of English: A Self-paced reading study [E]	Teacher's possible selves as attractor states [E]		Learners' Vocabulary Acquisition
14:15~14:40	<p>김선아</p> <p>(The Hong Kong Polytechnic Univ)</p> <p>Visuospatial and Verbal Working Memory in Learning Chinese Characters: Cases of Native Chinese, Korean, and English Adults [E]</p>	<p>이정열</p> <p>(초당대)</p> <p>Emotional Salience Alignment (ESA) [E]</p>	<p>김지은</p> <p>(울산대)</p> <p>-<i>Na</i>, an atomized pairing operator with a Skolemized choice function</p>	<p>임효정</p> <p>(광운대)</p> <p>The dynamic nature of learner motivation in Korea: a structural equation modeling approach</p>
14:40~14:50	휴 식			
14:50~15:40	<p>Invited Talk-(2), B101호: 좌장 정은선 (서울시립대)</p> <p>Heeju Hwang 교수</p> <p>(U. of Hong Kong)</p> <p>How does cumulative syntactic experience in L1 influence L2 production? [E]</p>			
15:40~16:40	<p>Plenary Talk, B101호: 좌장 황종배 (건국대)</p> <p>Kiel Christianson (U. of Illinois at Urbana-Champaign)</p> <p>Prediction in language processing is _____ [E]</p>			
16:40~16:50	휴 식			

16:50~17:40	<p>Invited Talk-(3), B101호: 좌장 (박명관)</p> <p>Yohei Oseki (Waseda University)</p> <p>Construction and evaluation of neurocomputational models of natural language [E]</p>
17:40~17:50	<p>폐회식, B101호</p> <p>폐회사: 김선웅(학술대회 조직위원장)</p>

Plenary Talk

Prediction in language processing is _____

Kiel Christianson

Professor
University of Illinois at Urbana Champaign
Beckman Institute for Advance Science & Technology

Prediction in language processing is _____

- interesting.
- crucial.
- necessary.
- supported by research.
- really popular.
- nothing new.
- ill-defined.
- limited.

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Outline

- Prediction in historical perspective
- 2 major mechanisms of prediction
 - Calculating the effects of prediction
- 2 major models of prediction
- Definitions of “prediction”
- Recent observations of prediction
- Problems with prediction
- Conclusions

Historical perspective

- Prediction is nothing new.
- Classic “garden-path theory” of syntactic parsing (two-stage model) (Frazier & Rayner, 1982) based on Minimal Attachment & Late Closure (Frazier, 1978; Frazier & Fodor, 1978)

The child fed the chicken smacked his lips.

The child who was fed the chicken smacked his lips.

→ Minimal attachment is a PREDICTION about upcoming structure:

- It will be as simple as possible.

Single-stage models

- Single-stage parsing models (e.g., constraint-based parsing, MacDonald et al., 1994) ALSO based on prediction.
 - Specifically, given the language-wide frequencies of reduced relative clauses & verb complement preferences (and literally a dozen more probabilistic cues), these models also propose that a PREDICTION is made about the upcoming material.

*The child fed the chicken **smacked** his lips.*

The child fed the chicken some bread crumbs. ← PREFERRED b/c predicted

Interim summary #1

- “Prediction” of some sort in language processing has been assumed for a long time.
- Therefore, prediction is _____.
- nothing new

Levels of representation

- One central question about prediction is at what LEVEL of representation prediction occurs.
- Garden-path theory’s hypothesized predictions are all at the level of SYNTAX.
- Constraint-based theory’s hypothesized predictions are at all levels of representation
 - Syntax, discourse, semantic, lexical, etc.
- Recent “prediction-centric” models hypothesize prediction as all levels, too.

Mechanisms of prediction

- What mechanism allows for prediction?
 - In GP Theory, exclusively syntactic predictions are based on a proposed universal preference for the simplest possible structure
 - In CB Theory & prediction-centric models, all predictions are based on probabilistic frequencies
 - The most frequent continuation is preferred, according to experience, assumed to be roughly captured by corpus frequencies & invariant constraints on the language (if they exist)

Calculating effects of prediction

- In more recent models that hold prediction as central, 2 related but different approaches
 - Surprisal (Levy, 1998)
 - Entropy reduction (Hale, 2001)

Surprisal

- Basically, the language processing system makes continuous predictions about every upcoming segment (at every level of representation)
 - When prediction is incorrect, surprisal accounts for processing difficulty
 - Error signal is used to re-adjust the predictions for future similar contexts

Entropy reduction

- Entropy is basically uncertainty
- In some contexts, there is considerable uncertainty about what is coming next
 - *"Yesterday, I saw ____."*
- In others, there is relatively extreme certainty
 - *"Please pass the salt and ____."*
- Predictions become more precise as entropy is reduced
 - Search space for predictions narrows as entropy reduces
 - Correct "predictions" should facilitate processing, but incorrect predictions shouldn't necessarily disrupt processing, as they would tend to be made in uncertain contexts with little cognitive commitment to any given option

Two major models of prediction

- Error-based implicit learning (Chang, Janciauskas, & Fritz, 2012)
 - Prediction errors trigger error signals eventually become less disruptive and processing is eventually facilitated as evidence accrues for correct predictions
- Bayesian belief-updating models (Jaeger & Snider, 2008)
 - Correct predictions increase probabilistic expectations for future input, whereas incorrect predictions decrease expectations for future input
 - In other words, if there are two structural options, X & Y, then an increase in expectation for X implies a decrease in expectation for Y

Definitions of prediction

- Given competing mechanisms and models, it is not surprising that there also exist competing definitions of “prediction”
 - Actual, explicit prediction of one or more features of the upcoming input: phonetic, orthographic, lexical, syntactic, etc. (lots of papers seem to say this)
 - “Predictive pre-activation” of sets of features at one or more levels of representation (Kuperberg & Jaeger, 2009; Luke & Christianson, 2016; Staub, 2015)
 - Either of the above can be considered as automatic or strategic/utilitarian (occurring only in contexts where some probabilistic threshold has been reached)

Interim Summary #2

- Prediction can be conceived of in many different ways, relying on several different mechanisms.
- Therefore prediction is _____.
- ill-defined

Reported prediction effects

- Phonology
 - De Long, Urbach, & Kutas (2005): ERPs
 - *The day was breezy, so the boy went outside to fly a/an kite/airplane.*
 - Reported N400 spike at “an” & interpreted as due to prediction of “kite” instead of “airplane”
- Orthography
 - Laszlo & Federmeier (2009); Luke & Christianson (2012)
 - L&C: “Transposed-letter confusability effect” disappears in predictable contexts
 - E.g., “trial” can be read in place of “trail” in a non-constraining context without disruption; in a constraining context, we observed disruption

• Lexical semantics

- A huge body of research (e.g., Federmeier & Kutas, 1996; Federmeier et al., 2002)
- *They wanted to make the hotel look more like a tropical resort. So along the driveway they planted rows of palms/pines/tulips.*
 - Report (and replicate) increased N400 spikes as critical word moves farther away from “predicted” word

• Syntax

- Staub & Clifton (2006)
- *Either Linda bought the red car or her husband leased the green one.*
- *Linda bought the red car or her husband leased the green one.*
 - Shorter reading times on “or her husband” when “either” was present.

Issues with reported prediction effects

- Lack of replication
- De Long et al.’s (2005) effect has not been replicated in English (e.g., Ito et al., 2016; Nieuwland et al., 2017)
 - Some weaker evidence for an effect in Dutch
- “We believe that this sort of anticipation is an integral (perhaps inevitable) part of real-time language processing...” (De Long et al., 2006; see also Christiansen & Chater, 2017)
 - But, if not operative in all languages, then consequence would be worse processing in some languages compared to others...

- Extremely constrained contexts
 - Luke & Christianson (2016)
 - Used a running cloze task to collect predictability norms for large amount of text
 - The Provo Corpus (Luke & Christianson, 2017)
 - Paragraphs, and participants predicted every word (except the first) of every text.
 - Not just final word of sentences
 - Highly predictable content words: M = 5%
 - Highly predictable function words: M = 19%
 - In most contexts, upcoming words are simply not predictable

No obvious evidence of penalty for incorrect prediction

- Recall: error-based implicit learning model
 - “Error” is critical, as it triggers learning
- Recall Bayesian belief-updating model
 - “Error” is also critical, as it triggers updating
- Is it reasonable to postulate “errors” triggering fundamental shifts in processing if we cannot observe any processing effects caused by the error?

- N400: Often described as a ‘penalty,’ but it’s not: all words cause N400 spikes (just more dramatic for words in highly constraining contexts)
- Very small or no reading disruptions for transposed-letter words if context isn’t constrained
- NO EVIDENCE of penalty in the eye movement record for words outside of 5% highly constrained contexts in Luke & Christianson (2016)
 - In fact, in contexts where there was a strong median response that WASN’T the target, reading was facilitated anyway
 - Probably the most intriguing result in that paper...

- BUT, clear and replicable garden-path effects on disambiguating words
 - *The child fed the chicken smacked his lips.*
- This isn’t all good news, though. There are ALSO disruptions in structures where the reduced relative clause is the ONLY POSSIBLE OPTION!
 - *The grandmother smiled when the child fed the chicken smacked his lips.* (“late-closure” structure, Tabor et al., 2004)
 - AND, despite the fact that there is only ONE structural option for this sentence, readers fail most of the time to do so, irrespective of how much they re-read (Christianson, Luke, Hussey, & Wochna, 2017).

It is not clear that people actually do learn (or adapt their beliefs) – at least not rapidly

- As just noted, readers fail to revise garden-paths of all sorts even when given time to re-read (e.g., Christianson et al., 2001, 2006, 2017; Christianson & Luke, 2011; Qian Garnsey, & Christianson, 2018)
 - So even when there's a penalty for an incorrect prediction, long-term effects are unattested

Moreover...

- Report of “rapid syntactic adaptation” (Fine, Jaeger, Qian, & Farmer, 2013)
 - Such that people not only read “The child fed the chicken smacked his lips” faster with exposure, but also read “The child fed the chick some bread crumbs” SLOWER because of more exposure to sentences of the first type
- Failure to replicate (Harrington-Stack, James, & Watson, 2018)
 - Original was underpowered

- And also..
- Failure to replicate with MULTIPLE probabilistic co-occurring cues (Dempsey, Liu, & Christianson, submitted)
 - Questions probing critical verb
 - “Did the child feed the chicken?”
 - Semantic content
 - Nationality adjectives (e.g., “Korean child”) in reduced relative garden paths, not in main verbs & then removed in 3rd block
 - Extra-linguistic cue
 - Red font for reduced relatives only and then switched in 3rd block
- Absolutely no evidence that readers learned to associate cues with structure
 - Only syntactic satiation effects (e.g., Stromswold, 1986)
 - Sort of structural priming?

Prediction seems to help in only certain contexts

- Staub (2015)
 - Very clever experiment
 - Checked for predictability effects as a function of whether predictable/unpredictable word was visible in the parafovea
 - Basic results: facilitation for predictable words ONLY observed if word was in parafovea
 - So if there was a preview of low-level information available, then “prediction” was initiated

- Bulkes, Tanner & Christianson (under revision)
 - ERP experiment examining transposed-letter (TL) effect in constrained contexts (cf. Luke & Christianson, 2012) – idioms
 - When experimenter-controlled presentation, TL stimuli pattern similarly to correctly spelled stimuli, irrespective of constraint
 - When participants control presentation (SPR), TLs trigger larger P250 & N400 spikes in constrained contexts
 - Seems that when participants are more involved in reading, prediction is more likely

Interim summary #3

- Contexts in which “prediction” is feasible are rare.
- Information upon which predictions can be based is not uniformly informative across languages.
- Error penalties are hard to find.
- Entropy reduction (Hale, 2001) seems to predict behavioral measures better than surprisal (Levy, 1998) (Luke & Christianson, 2016)
- Even when penalties for bad predictions can be observed, doesn't seem like it influences comprehension OR subsequent processing
- Accurate predictions seem to only facilitate processing under narrow conditions
- Therefore, prediction in language processing is _____.
 - limited

Conclusions

- Yes, there exists considerable evidence that people can predict upcoming input at very fine-grained levels of representation.
- In my view, however, there exists no clear evidence that people must predict upcoming input in order to successfully and rapidly process language.
 - Consistent evidence of disruption due to error might suggest that prediction in SYNTAX is required, but what is the basis for these predictions?
 - Universal preference?
 - Probabilistic?

- My favorite analogy:
 - Imagine you are studying the kinesiology of how humans walk up stairs.
 - You observe that most of your subjects hold the handrail as they walk up the stairs in the lab.
 - Do you want to propose that humans must use handrails to walk up stairs?
 - No, although they certainly can, and as the stairs become steeper, doing so helps them ascend with less effort.
- Therefore,
 - “Prediction: What’s the big _____?”
 - deal

Thank you!

- And thanks to my students & postdocs, past and present:
 - Dr. Jeong-Ah Shin (for inviting me!)
 - Dr. Steven Luke
 - Dr. Erika Hussey
 - Kacey Wochna
 - Jack Dempsey
 - Ella Liu

Invited Lectures

영어학과 데이터 사이언스의 접목:

교과과정 설정과 전망

한수미

한림대학교 영어영문학과/디지털인문예술전공

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인터넷과 스마트폰으로 대표되는 디지털 세상에서 우리는 1초에 56만 GB의 엄청난 양의 데이터를 생성하고 있다(고현실, 2017). 정보통신기술의 비약적인 발전으로 만들어진 이러한 디지털 데이터를 분석하고 활용하고자 하는 시도가 매우 활발하며, 거의 모든 산업 분야에서 데이터 사이언스 인재에 대한 수요도 증가하고 있다. 우리는 이러한 사회적 변화와 맞물려 영어학과 영어교육 분야의 새로운 인재 양성이라는 새로운 과제에 직면해 있다.

사실, 데이터 사이언스는 영어학과 영어교육 분야와 밀접하게 맞닿아 있다. 왜냐하면 데이터 사이언스 교과과정에서 핵심이 되는 수업들이 ‘통계학’, ‘SW 활용능력’, 그리고 ‘언어학’이기 때문이다. 이 세 개의 기초 교과들은 이미 영어학과 영어교육 대학원 교과과정에서 공통으로 다루어왔고 따라서 두 분야의 교과과정을 좀 더 빠르게 접목할 수 있을 것이다. 다만 교과과정 접목을 위한 세 가지 세부적인 선행과제들은 다음과 같다. 첫 번째 과제는 전 교수진의 데이터 사이언스 분야에 대한 학습 및 연구이다. 두 번째 과제는 이 수업들을 어떻게 학부 수준에서 그리고 데이터 사이언스에 초점을 두어 설계하느냐이다. 마지막 과제는 이러한 영어학과 데이터 사이언스 분야의 융합을 통해서 영어학도에게 새로운 분야로의 진출을 안내하는 것이다.

지금까지 인문학분야 다양한 언어자료를 가공하고 분석하는 일이 사회과학, 컴퓨터공학, 또는 통계학자들의 손에서 많이 이루어져왔다. 우리는 영어학과 데이터 사이언스 교과과정 접목을 통해서, 새로운 시대를 주도해나갈 인재를 양성할 뿐만 아니라 인문학 분야 언어데이터를 분석하고 연구하는 데에 이바지할 수 있을 것이다.

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How does syntactic experience in L1 influence L2 production?

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There is currently a debate about whether between-language structural priming reflects the operation of transient, short-term memory activation mechanisms (e.g., Pickering & Branigan, 1998) or the operation of longer-term mechanisms of implicit learning (e.g. Chang, Dell, & Bock, 2006). We aim to address the issue by investigating how the cumulative L1 experience with particular constructions (Active/Passive and DO/PO) affects subsequent L2 production for those constructions. Chinese (L1) learners of English (L2) described transitive and ditransitive events in two sessions, one in Chinese and the other in English. We found that participants' L1 experience significantly changed their syntactic behavior in L2. The effect was greater with a less frequent construction. Our results provide clear evidence in favor of the view that structural priming reflects the presence of a long-lasting adaptation within the language production system.

Construction and evaluation of neurocomputational models of natural language

Yohei Oseki

(Waseda University/RIKEN Center for Advanced Intelligence Project)

Natural language processing (a branch of artificial intelligence) and the neurobiology of language (a branch of brain science) have been traditionally divorced. In natural language processing, on the one hand, computational bases of language have been developed under the shadow of deep learning techniques, but the question of how those computational bases are biologically realized in the human brain was not sufficiently addressed. In the neurobiology of language, on the other, neural bases of language have been revealed thanks to neuroimaging techniques, but the perspective on how those neural bases are algorithmically implemented with neural computations was largely neglected. However, despite being proposed relatively independently, those computational and neural bases show striking resemblance in that both constitute complex networks of various modules, so that the happy marriage of the two fields is highly desirable. In this talk, I will investigate computational and neural bases of language by constructing neurocomputational models based on symbolic automata and evaluating them with human behavioral and magnetoencephalography (MEG) measurements. The results converge on the conclusion that words (character strings) are sequentially segmented into morphemes and then hierarchically parsed into syntactic structures in the visual ventral stream, especially the Visual Word Form Area (VWFA) indexed by the left anterior fusiform gyrus, suggesting the tighter connectivity between the visual and “language” areas than previously thought.

A Force-dynamic Approach To Modality

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1. Introduction

This paper proposes a alternative solution to a possible-worlds approach to modality. The main stream of research in modality has been assuming possible worlds regardless of their plausibility. In this paper, an alternative solution is proposed employing modal forces of a realistic world dispensing with possible worlds. This paper has three parts.

This first section deals with categorial issues in modality concerning English modal auxiliaries. This paper will maintain a conservative stance as to possible modal categories and still take care of diverse meanings of English modal auxiliaries. Dynamic modality will be redefined as a domain where the properties of various entities activate modal forces.

The second part will address the issues involving modal forces, their strength and sources. Deontic, epistemic and dynamic modal forces will be identified and their strength will be evaluated. Sweetser's (1990) notions will be reviewed and they will be further elaborated and diversified. It will be also argued that English modal auxiliaries are not used to express logical possibility (i.e. alethic possibility) but an epistemic possibility.

The third part will deal with subjectivity issue of epistemic modality. This paper will critically review and inquire into the fundamentals of Kratzer's (1981) founding work on modality within possible-worlds semantic approach. Especially her notion of *ordering source* will be criticized and an alternative solution will be put forth within a force-dynamic model that can avoid Kratzer's shortcomings.

2. A Force-Dynamic View of modality

Modality is probably one of the key areas that motivated a possible-worlds approach in semantics since it may not be successfully accounted for without possible worlds. The introduction of possible worlds to semantics may have independent motivations as they are needed for the account of subjunctive mood, tense, etc. The basic assumption of truth-conditional semantics is that every expression can be translated into a kind of truth condition and this has led to a adoption of additional worlds along with the given world.

The force-dynamic approach does not assume those possible worlds but stick to the real world in which the speaker and the hearer reponse or act according to what is said. For instance, consider (1).

- (1) a. You must go home.

- b. You may go home.

When (1a) or (1b) is uttered, we do not imagine an additional world to understand them, but some kind of perlocutionary forces are activated so that we should act accordingly. This kind of modal expressions has to do with the states of affairs in the present world but not with those in possible worlds.

This paper will account for modal expressions like (1) in terms of the real world, and modal forces will be postulated and defined as originating from real world modal base.

2.1. Categorical Issues

Categorical issues in modality can be approached by looking at where modal forces come from. This paper postulate a kind of modal force very similar to Sweetser's (1990) but slightly different in details.

2.2. Modal forces

Let us take the case of *may*. Sweetser (1990) proposed that epistemic *may* implies 'lack of barriers' in some inference process. This can mean that we are free to make an certain inference. This is not a sufficient condition for *epistemic may* in English at least since modal expressions in English seems to have a certain level of evidentiality. Consider (2).

- (2) a. That gentleman may be married.
b. That gentleman may die within an hour or so.

One cannot say (2a) or (2b) to his/her friend out of blue, pointing to a total stranger sitting on a bench. If we mobilize our background knowledge about marriage in our society, the gentleman is, in principle, either married or unmarried; so there is a kind of logical possibility that he would be married. No one can deny this logical possibility, but we normally do not say (2a) without further information. If we do not have any evidence for what we are saying, we simply say we do not know. The logical possibility does not constitute a condition under which (2a) can be used. According to Nuyts (2000: 34), in principle 'without any evidence one cannot evaluate the probability of the state of affairs.' To be able to say (2a), we have to have some evidence. The same is true with (2b), although every human being carries a possibility of dying at any moment. The speaker should at least have some knowledge about him. For instance, if it is known that he shows a certain kind of photo on his SNS page, and if he is young, sociable, wealthy, healthy, etc., (2a) can be used. This kind of evidence can be seen as providing *enabling* forces for the force-dynamic approach.

2.3 Modal Categories

This paper will maintain a conservative stance as to possible modal categories and still take care of diverse meanings of English modal auxiliaries. Dynamic modality will be redefined as a domain where the properties of various entities activate modal forces. For deontic and epistemic modality we follow the traditional definition given by Von Wright (1951) and Huddleston et al (2002).

First, deontic modality is a matter of imposing obligation or prohibition, granting permission, and the like. The person, authority, convention, or whatever from whom the obligation, etc., is understood to emanate we refer to as the **deontic source**.

Second, epistemic modality is the kind of modality involves qualifications concerning the speaker’s knowledge. Epistemic modality concerns the speaker’s attitude to the factuality of past and present time situation while deontic modality concerns the speaker’s attitude to the actualization of future situations.

Third, dynamic modality has to do with the modality of ability and disposition, such as ‘X is able to’ and ‘X is willing to’, according to von Wright.

As Kratzer (1977) pointed out, the above categorization of modality is to restricted and cannot account for examples like (3)

- (3) a. If you must sneeze, at least use your handkerchief. [dispositional]
- b. When Kahukura-nui died, the people of Kakukuranu said:
Rakaipaka must be our chief. [preferential] (Kratzer 1977)

This paper adopts and partly revise Y.-B. Kim's (2017c) position as for modal categories as shown in (4)

(4) Modality domains, modal sources and functions

modality	modal domain			sources of modal force	grammatical function
	epistemic (proposition level)			clues, evidence	modulation of truth level of a proposition
	non-epistemic (action/state level)	deontic (social)		social norms	imposition of influences on the subject
		dynamic (non-social)	individual situational	object-internal factors	description of manner of realization of internal factors

In (4), three different domains of modality are defined exclusively from one another in a more general terms. Epistemic modality deals with the certainty of a proposition at a porpositional level and the modal force comes from clues and

evidence of various types. Deontic modality concerns social norms and its force imposes some kind of force or pressure on the subject of the sentence. Dynamic modality describes the potentiality of object-internal factors whether they are individuals or situations.

For instance, *must* can be exemplified as in (5):

- (5)
- a. John must be home by now.

b. John must leave right away.

c. If you must sneeze, at least use your handkerchief.

(5a) is a case of epistemic must where there is a strong clue or evidence that leads the speaker to conclude that John is home at a certain point of time; (5b) is an instance of deontic must where John is forced to leave because of some social norms or arrangements; (5c) shows a dynamic usage where certain circumstantial factors act as a irresistible force that causes the hearer to sneeze. (3b) can be interpreted as a situation where situation-internal factors forces someone to be a leader. This is tabled as in (6)

(6)

modal force of <i>must</i>	Irresistible Force		
	↙	↓	↘
domain	epistemic domain	deontic domain (social domain)	dynamic domain (object domain)
source of force	clues, evidence available to speaker	social norms	internal properties of individuals and situations
speech function	speaker's modulation of certainty level of utterances	imposition of obligation on the subject	the description of manner of realization of inherent properties of the subject/situation

3. Ordering Sources

According to Kratzer (1981), modal meanings can be captured by specifying two axes: specifying modal relations and restrictions for admissible conversational backgrounds. Modal relations determine the force of the conclusion in epistemic modality; the conversational background acts as premises from which conclusions are drawn and it consists of factual conversational backgrounds and ‘normative’ or ‘assumed’ conversational backgrounds, the latter of which is called *ordering sources*. This implies that we should be able to make inferences using non-factual (assumed) premises or make deontic statements based on some kind of norms, as well as on the basis of the factual information which is known in the accessible

worlds. This seems to appropriately reflect the actual pattern of language use. Kratzer makes a crucial use of *ordering sources*, which orders accessible worlds according to sets of properties relevant to modality. This is shown in (2).

(7) The Ordering \leq_A

For all worlds w and $z \in W$: $w \leq_A z$ if and only if

$\{p: p \in A \text{ and } z \in p\} \subseteq \{p: p \in A \text{ and } w \in p\}$

(Kratzer 1981: 47)

According to this definition, ' $w \leq_A z$ ' means that a world w is at least as close to the ideal as a world z , if and only if all propositions of A which are true in z , are also true in w as well. The set of proposition A contains pieces of evidence, norms or assumptions for a modal statement. It actually determines relative ordering among the accessible set of worlds for a certain modal expression. In the possible-worlds semantics she adopted, a proposition is identified with the set of possible worlds in which it is true. Thus, ordering sources plays a pivotal role in pinpointing the semantic core of modal expressions, or the set of most ideal worlds in which the relevant modal expression can be used. Let us provide the details of the definition in (7) by using the epistemic statement in (8).

(8) John must have the flu.

For Kratzer, to provide the meaning of (3) is to identify the sets of accessible worlds that ranks most high given some background information. If a certain world satisfies a larger set of relevant propositions than any other world, it will be seen as the ideal world that denotes the meaning of the modal expression.

There arises a problem, however, since the ideal world can be identified only when the possible worlds are ordered according to the subset relations. The problem is that the subset relations may not always hold between the realistic worlds. Thus ordering cannot be established in some cases. For instance, in one world, we can suppose that the doctor has the information that John has a temperature (q1), John has a runny nose (q2), and John has a bad cough (q3). In another, we can also suppose the doctor has less background information regarding John's flu, for instance, only q2 and q3. Furthermore, in still other cases, the doctor is aware of q1 and q3, and of more information such as John has indigestion (q4). As we can see, there can be no subset relations available between $\{q1, q2, q3\}$ and $\{q1, q3, q4\}$ and between $\{q2, q3\}$ and $\{q1, q3, q4\}$. Therefore, in this situation it is difficult to isolate an ideal world. Furthermore, let us suppose, for the sake of argument, most doctors consider $\{q1, q2, q4\}$ to be stronger evidence for flu than $\{q1, q2, q3\}$. Under this circumstance, there should be some realistic measure to be taken to order or evaluate the situations since in

the {q1, q2, q4} situation a usual doctor can make a stronger statement than he does in the {q1, q2, q3} case. We should somehow be able to evaluate the strength between pieces of evidence but Kratzer has no means to this end. This is because Kratzer simply takes relevant information to be a set of propositions relevant to a statement.

There can still arise other problems since Kratzer does not evaluate relevant propositions. Suppose {q1, q2, q4} is crucial set of symptoms for flu, but we could add another kind of background information {had a flu shot: q5}. We could have a situation where John's doctor has {q1, q2, q4, q5}. Depending on the doctor, q5 may or may not be a crucial factor for not diagnosing John's symptom as flu, even though {q1, q2, q4, q5} is a superset of {q1, q2, q4}. To be more specific, there can be some specific property that may nullify the contribution of other symptoms. For instance, if the flu shot works perfectly for those inoculated without exception, other 'important' symptoms should not have as great a modal force as they do on their own in other situations. In other words, some properties can have a *blocking* effect, but Kratzer's definition may not deal with this effectively. It will be shown in the next section that a force-dynamic account can solve this problem in a natural and effective manner.

In the force-dynamic approach, the usual symptoms can act as *enabling* forces that facilitates the doctor's inferences in diagnosis of the flu, whereas preventive shots will act as *blocking* forces that deters certain inferences on the side of the doctor.

4. A Force-Dynamic Account

Within a force-dynamic approach, a modal utterance is interpreted as shown below in (9)¹. K_s^p is domain-related knowledge of the speaker; E_s^p is the speaker's evaluation of evidence in a certain domain; this paper assumes three domains: deontic, epistemic, and dynamic.

(9) An utterance U is analyzed as follows:

(i) U consists of M(modal) and p in C(discourse context)

(ii) $[[M(p)]]^C$ = a function from $\langle p, K_s^p, E_s^p, D \rangle$ to $\{Imp\}$

where M: Modal verb, p: preadjacent proposition,

K_s^p : speaker's knowledge, E_s^p : Evaluation function,

D: modal domain, Imp: implicature.

(iii) K_s : set of the speaker's knowledge fragments relevant to p in C.

$K_s^p = \{q_1, \dots, q_n\}$ where q_i is relevant to p

$E_s^p: \langle q_i, p \rangle \rightarrow \{ \langle e_i^{pro}, \dots, e_i^{pro} \rangle \text{ OR } \langle e_{i+1}^{con}, \dots, e_n^{con} \rangle \}$ (for all $q_i, i=1 \dots n$)

where e_i^{pro} and e_{i+1}^{con} is ordered according to the strength levels of the members, and PRO and CON are variables over pragmatic features such as [DIRECT],

1) This is the revision of Y.-B. Kim (2017b).

[INDIRECT], [OBJECTIVE], [ENABLING], [NECESSITATING], [BLOCKING], etc.

The evaluation function is needed since different types of clues or evidence can produce different kinds of forces carrying varying strength degrees. We have introduced three domains in (6) above and each domain has forces of different kinds: *enabling*, *necessitating*, and *blocking forces*, as symbolized by e_i^E , e_i^N , and e_i^B . These forces are products of a kind of a evaluation function which takes background information and ordering sources as input. For instance, the condition for using epistemic *must* will be specified as in (10)²⁾:

- (10) MUST p is acceptable in a modal domain D^E iff
- i) there is at least one clue e_i^N in D^E which is *indirect* evidence to p
 - ii) For all e_j there is some e_i^N such that $F_s^D(e_i^N) > F_s^D(e_j^B)$

An utterance containing *must* will be translated as: strong indirect evidence leads the speaker to the conclude (or believe) that p .

As for epistemic may, we set up the condition in (11):

- (11) MAY p is acceptable in a modal domain D^{EP} , iff
- i) there is at least one clue e_i^E in D^{EP} which is indirect evidence to p ,
 - ii) there is no e_j^B , such that $F_s^D(e_j^B) > F_s^D(e_i^E)$.

(11) says that there is an indirect evidence that implies p and the piece of evidence is stronger than any blocking evidence.

AS for deontic domain, we have almost the same condition for the modal expressions. As for deontic *must*, we can have the conditions in (12).

- (12) MUST p is acceptable in a deontic modal domain D^{DE} iff
- i) there is at least one piece of e_i^N in D^{DE} which force the situation supported by p to be actualized
 - ii) For all e_j there is some e_i^N such that $F_s^D(e_i^N) > F_s^D(e_j^B)$

(12) says that deontic must can be used in a situation where p have to be actualized due to some kind of norm. Likewise deontic *may* can be used under the condition specified in (13),

- (13) MAY p is acceptable in a modal domain D^{DE} , iff
- i) there is at least one clue e_i^E in D^{DE} which facilitates the situation

2) We have introduced a function F_s^D that determines the relative strength of evidence or clues in modal domain and it is speaker-dependent. Each domain has its own evaluation function.

- supported by p to be actualized
- ii) there is no e_j^B , such that $F_s^D(e_j^B) > F_s^D(e_i^E)$.

As for dynamic modal domain we almost have the same kind of condition as in (12) and (13) for *must* and *can*, respectively. They are shown in (14) and (15), respectively.

- (14) MUST p is acceptable in a dynamic modal domain D^{DY} iff
- i) there is at least one piece of e_i^N in D^{DY} which force the situation compatible to by p to be actualized
 - ii) For all e_j there is some e_i^N such that $F_s^D(e_i^N) > F_s^D(e_j^B)$
- (15) CAN p is acceptable in a modal domain D^{DY} , iff
- i) there is at least one clue e_i^E in D^{DY} which facilitates the situation supported by p to be actualized
 - ii) there is no e_j^B , such that $F_s^D(e_j^B) > F_s^D(e_i^E)$.

The similarity shown in (9) through (15) seems to show that the force-dynamic account can capture the core meaning of the English modal auxiliary verbs with some differences appearing in connection with domain specific details.

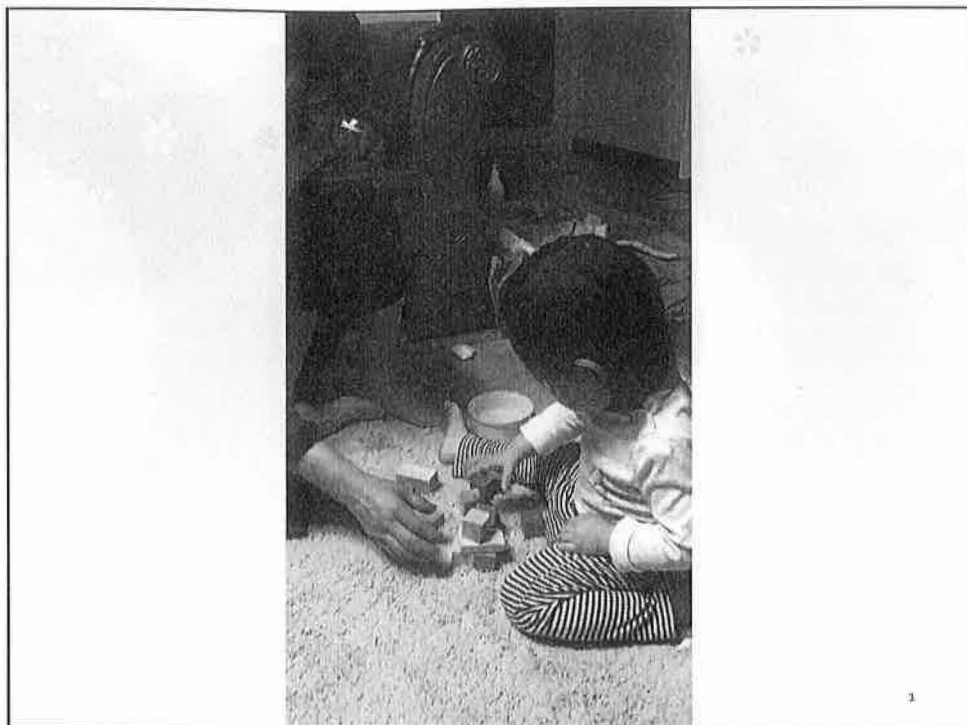
5. Conclusions

We identified three domains for modality in English that can be defined in a mutually exclusive manner: social domain, mental domain, and dynamic domain. Especially, we claims that English dynamic modality can be identified as modality operating in the object domain with the modal force of potentiality of the objects being crucial in it. We have identified some forces applying to various objects including individuals and situations in the domain. We have also matched up each domain with corresponding source of forces related to various interpretations. Especially we suggested that dynamic modality should be able to distinguish between the subject-oriented and situation-oriented usages. This helps us approach modality in a comprehensive and coherent manner and solve categorization problems and related issues.

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한국영어학회
2019년도 봄 학술대회

**연구윤리교육: 최근 사례를
중심으로**

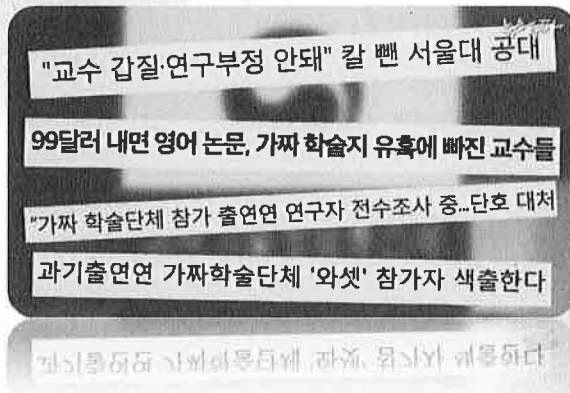
정채관
한국영어학회
부편집위원장 겸 총무이사

광운대학교 참빛관
2019년 5월 25일

해적 학술단체 관련 과학기술방송통신위원회 업무보고 (2018.7.27)



가짜 학술지 유혹에 빠진 교수들 (2018.9.12)



부실하거나 약탈적인 학술지의 특징

(한국연구재단, '18.10.01)

- (출판) 동료심사, 수정 등 일반적인 학술지 출판과정이 생략된다.
 - 동일 논문이 반복해서 출판되거나 타 학술지 논문이 출판된다.
 - 논문 제출과 출판 간의 간격(기간)이 매우 짧다(1개월 이내).
- (양식) 논문 제출 양식(format)이 조악하다.
- (학문범위) 특정분야가 아닌 다양한 학문분야를 다룬다.
- (비용) 홈페이지에 논문 게재료가 명확하게 나와 있지 않고 개인 이메일로 청구된다.
- (광고) 스팸 이메일 형식으로 논문 제출을 독려한다.
- (단체명) 학술지 명칭에 World, International, Global과 같은 형용사가 포함되는 경우가 많다.
 - ※ World, International, Global로 시작하는 저널 중에도 우수 저널이 많이 있으므로 각별한 주의가 필요하다.
- (학회위치) 학회 사무국이 선진국(미국, 유럽, 호주 등) 도시에 있다고 주장한다.
- (영향력지수) 홈페이지에 해당 학술지의 영향력지수(IF)가 높다고 언급한다.
- (주소) 홈페이지에 이메일 주소 외에 일반 주소가 없다.

※ 참고 : Mohammad Hemmat Esfe et al (2015), Fake Journals: Their Features and Some Viable Ways to Distinguishing Them. *Sci Eng Ethics*, 21, 821-824

부실하거나 약탈적인 학술대회의 특징

(한국연구재단, '18.10.01)

- (이메일 계정) gmail, hotmail 등과 같은 상업용 이메일 사용한다.
- (참석) 직접 참석하지 않고도 학회참여증서를 준다고 선전한다.
- (학문범위) 특정분야가 아닌 다양한 학문분야를 다룬다.
- (운영위원) 학회 운영위원회에 대한 정보가 명확하지 않다.
 - ※ 무단으로 저명한 연구자를 운영위원으로 내세워 다른 연구자들을 현혹한다.
- (학회날짜) 초록 마감일, 논문 제출일, 학회일 등이 자주 변경된다.
- (현혹) 무료 숙박·속식·항공권 등으로 선전하여 연구자를 현혹한다.
- (학회장소) 관광하기 좋은 장소에서 개최한다.
- (지불방식) 일반적인 학회는 신용카드를 통해 학회비를 지불하는 반면 부실 학회는 현금 송금을 요구한다.
- (명성이용) 해당학회를 유명 출판사에서 주최한다고 광고한다.
- (학회프로그램) 학회운영 프로그램이 애매하고 토론자나 강연자에 대한 정확한 정보가 없다.
- (초청방식) 일반학회는 연구논문에 대해(e.g. call for papers) 모집하지만 부실학회는 연구자에게 직접 초대 이메일을 보낸다(e.g. You are invited).
 - ※ 해당 학회에서 발표하면 SCI급 저널에 게재된다고 광고한다.
- (참석증서) 참가비를 지급 후 학회날짜 전에 학회참석증서 발급한다.
- (강연자 초청업선) 일반학회는 저명학자를 초청하여 강연을 듣지만 부실학회는 일정금액을 내면 원하는 강연자를 초청해준다고 약속한다.
- (부실 테스트) AI 등으로 작성한 이상한 논문 초록을 시험 삼아 보내보고 그 논문 초록이 학회에 초청되면 부실학회이다.

※ 참고 : Amin Asadi et al (2018), Fake/Bogus Conferences: Their Features and Some Subtle Ways to Differentiate Them from Real Ones. *Sci Eng Ethics*, 24, 779-784.

부실학술활동 예방 관련 사이트

사이트 주소	주요 제공 내용
https://beallist.weebly.com/	Beall이 작성한 부실 학술지 리스트(매주 갱신)
https://predatoryjournals.com	논문심사 없이, 또는 허술한 심사를 통해 연구자로부터 논문 게재료 이윤만 행기는 "악질적(Predatory) 출판사의 영리행위 피해를 줄이기 위해, 비올리스트(Beall List)에 기초한 자격미달 학술지목록(블랙리스트)을 제공하는 비영리 웹사이트
http://thinkchecksubmit.org	연구자가 저널이나 출판사의 지명도를 평가하는데 사용되는 체크 리스트 (Think/Check/Submit 캠페인)
https://thinkcheckattend.org	연구자가 신뢰할 수 있는 학회와 기피해야 할 학회를 구분할 수 있게 가이드라인을 제공 (Think/Check/Attend 캠페인)
https://libguides.caltech.edu/c.php?g=512665&p=3503029	Caltech 도서관에서 제공하는 부실 학술단체와 컨퍼런스 관련 정보
https://files.eric.ed.gov/fulltext/ED579189.pdf	캐나다 캘거리대학에서 만든 부실 학술지 및 학술대회 회피 가이드북 (2018년 제작)
https://www.consumer.ftc.gov/blog/2016/08/academics-and-scientists-beware-predatory-journal-publishers	미국 연방무역위원회(FTC) 성명서 - Academics and scientists: Beware of predatory journal publishers
https://grants.nih.gov/grants/guide/notice-files/not-od-18-011.html	미국 국립보건원(NIH) 성명서 - Statement on Article Publication Resulting from NIH Funded Research
http://www.icmje.org/icmje-recommendations.pdf	Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals (International Committee of Medical Journal Editors)
https://doaj.org/bestpractice	Principles of Transparency and Best Practice in Scholarly Publishing, the joint statement by the Committee on Publication Ethics (COPE), the Directory of Open Access Journals (DOAJ), the Open Access Scholarly Publishers Association (OASPA) and the World Association of Medical Editors (WAME).

최근 사례

- 만연한 논문조작/표절... 국제 망신(매일경제, 2019.05.08)
- '연구윤리 훼손'... 서울대/연세대/성균관대 등 15곳 특별사안조사(머니투데이, 2019.05.13)
- 연구부정 저지른 교수, 국가사업서 영구퇴출... 대학도 관리강화(매일경제, 2019.5.13)



L2 Processing

Recognition of Speech Acts in L2 Conversation:

A Self-paced Reading study

Myung-Kwan Park*, Jeong-Ah Shin*, Yeonji Baik** & YooLae Kim*
(Dongguk University* & Korea University**)

Introduction 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. Thus, indirect speech acts are dominant in communication to present one's opinions. Other studies (Gisladdottir, Dorothee, Chwilla, & Levinson, 2015; Yin & Kuo, 2013) demonstrated that people are more likely to be confused by indirect speech acts than by direct ones.

Experiment 36 native Korean students participated in the experiment. Participants read the dialogues and were asked to classify the target utterance by *Answer*, *Declining*, and *Offering*. Therefore, each dialogue included the target utterances such as “*I have a credit-card*” which can represent three functionally different speech acts (*Answer*, *Offering*, *Declination*; 10 items each) depending on the prior context (Gisladdottir, Dorothee, Chwilla, & Levinson, 2015).

Results The participants showed higher accuracy rates (mean score 85, range 77-92), indicating that they were able to identify the speech acts in underspecified conversations. The overall response time revealed that *Offering* condition showed a significant difference related to the control *Answer* condition ($Estimate=115.63$, $SE=17.51$, $t=6.602$, $p<0.001$), which means the participants took much longer to understand the *Offering* condition than the *Answer* condition. Although it took longer time to interpret the *Offering* condition, the accuracy rate was the lowest. In addition, the participants read the *Declination* condition faster than the *Answer* condition, but the accuracy was lower than the control *Answer* condition. Even though the *Declination* and the *Offering* conditions may have caused more cognitive efforts than the control *Answer* condition, L2 learners were able to recognize the speech acts in underspecified situations. For the sentence reading times, there were no significant differences among the three conditions (*Declination-Answer*: $Estimate=13.34$, $SE=14.36$, $t=0.929$, $p=0.353$; *Offering-Answer*: $Estimate=14.22$, $SE=15.81$, $t=0.899$, $p=0.369$). Thus, Korean learners might have decided the actions after they went through the whole sentences.

A close look at the processing difficulty of English object relative clauses: An L2 study

백순도 (국민대학교)

Previous work on sentence processing shows that object relative clauses are more difficult to process than subject relative clauses in English, L1 and L2 alike. The exact locus of difficulty, however, is yet to be resolved. The present study tested where in the sentence the difficulty with object relative clauses arises using a self-paced reading task with Korean learners of English. The results are interpreted in terms of sentence processing theories.

Real-time interpretation of sentences containing quantification and negation in English by Korean learners of English

Eun Seon Chung* & Jeong-Ah Shin**

(Seoul City University & Dongguk University**)*

The present study examines adult second language (L2) learners' real-time interpretation of scope ambiguities in English sentences containing the universal quantifier every and negation, such as Every horse didn't jump over the fence. Previous studies in L1 processing of scope ambiguities have found that native speakers employ a "minimal effort" principle that highly prefers surface scope interpretation. Accessing the inverse scope reading was found to incur significant processing cost regardless of contextual support. L2 learners have been found to integrate information relevant for parsing differently from native speakers, and calculating scope ambiguities is predicted to be difficult due to the additional computational cost and possible L1 transfer. To compare the processing strategies of native English speakers and Korean learners of English, we conducted an experiment with a self-paced reading/interpretation task that has context (ambiguous vs. unambiguous) and scope reading (surface vs. inverse) as variables. Participants' response of True or False, response times, and reading times (for each segment in the experimental sentences) were measured. The preliminary results indicate that the ambiguity of context plays an important role in determining scope interpretation, more so than the minimal effort strategy. In addition, the inverse scope reading does not appear to incur a significant processing cost, and the two groups' manner of reanalysis and incremental processing were not significantly different. Further analysis of the results will provide implications for differences in L1 vs. L2 processing strategies and the role of context in scope computation.

Wonil Chung, Hyejin Suh, and Myung-Kwan Park
(Dongguk University)

Cowles, Kluender, Kutas, and Polinsky (2007) found two types of ERP response in answers to *wh*-questions. One is that all words in focused position showed a large positivity understood as characteristic of sentence-final elements, and in fact the sentence-final words of the sentences containing them did. They suggested that focused elements might trigger integration effects, like those in sentence-final position. The other is that inappropriately-focused referents showed a right negativity relative to appropriately-focused ones. They suggested that this N400-like effect was elicited by comprehending structurally-encoded focus cues and discourse-level restrictions. Along the line of Cowles et al (2007), we are also to investigate ERP responses to violations of information structure (IS) in answers to *wh*-questions in Korean English speakers, where focus structure is incorrectly aligned in 'it'-clefts.

To this aim the experimental materials for our ERP study consisted of 60 sets with two types of stimuli (congruent and incongruent), adopted from Cowles, et al. (2007). Each trial contains a set-up context with the introduction of three discourse participants, and then a *wh*-question consisting of one participant as an agent and two participants as an undergoer of an event, and a target sentence that was constructed as an *it*-cleft, with its pivot marked for focus with a congruent or incongruent participant, schematically represented below.

- (1) set-up: A queen, an advisor, and a banker were arguing over taxes. Who did the queen silence with a word, the banker or the advisor?
- (2) congruent target: It / was/ the banker/ that/ the queen/ silenced/.
- (3) incongruent target: It /was/ the queen/ that/ silenced/ the banker/.

Twenty Korean English L2ers with a high level of English proficiency participated in this experiment. ERPs were measured at the critical phrase (a cleft pivot: 'the banker' or 'the queen') and all the following expressions (i.e. words/phrases) in a sentence. We found that, first, all the expressions in cleft-pivot focus position registered a large positivity. Likewise, the final expressions in the congruent condition recorded a positivity, but those in the incongruent condition didn't. Second, the expressions in cleft-pivot focus position in the incongruent relative to the congruent condition elicited N400 at right anterior regions and widespread P600, namely, a bi-phasic RAN-P600. The word immediately after the pivot (e.g., 'that') in the incongruent relative to the congruent condition elicited an ELAN, and the sentence-final expressions in the incongruent relative to the congruent condition evoked a sustained negativity.

We take the results in this experiment to indicate that the N400 evoked at the cleft pivot in the incongruent condition reflects a violation of IS called for by the congruence between the preceding *wh*-question and its answer in a given context, and the P600 at the same position is a signature of syntactic integration difficulty due to the misfit of a non-focused constituent in a syntactic position reserved for focused expressions. At the same time, we suggest that the sustained negativity at the sentence-final elements in the incongruent condition is a neural correlate of increased syntactic complexity owing to the IS-wise mis-alignment of syntactic constituents.

The role of frequency in the processing of giving and receiving events in Korean

Hongoak Yun (Jeju National University) & Eunkyung Yi (Seoul National University)

This study aims to examine the processing benefits of frequency information associated with the case marker *-eykey* in comprehending Korean declarative sentences. By using a picture description task in which pictures ambiguously illustrated either a giving event (*-eykeyREC* ... *cwuta* 'give ... to') or a receiving event (*-eykeySOURCE* ... *patta* 'receive ... from'), we found that giving events were predominantly preferred to receiving events. The results from online sentence comprehension revealed that 1) give-type verbs were integrated into sentences faster than receive-type verbs and 2) the differences were accelerated more when role NPs were canonically ordered (NP-*eykey* ... NP-(*l*)ul) than when they were noncanonically presented (NP-(*l*)ul ... NP-*eykey*). We claim that frequency bias associated with *-eykey* facilitates readers' anticipatory processing in the integration of upcoming information. We further discuss the processing difference in giving and receiving event might attribute to the argument-adjunct distinction between recipients and sources.

Visuospatial and Verbal Working Memory in Learning Chinese Characters: Cases of Native Chinese, Korean, and English Adults

Sun-A Kim

The Hong Kong Polytechnic University

This study aimed to answer two research questions: (1) Does reading experience in one's native language (L1) affect visuospatial and verbal working memory (WM) capacity? (2) How would visuospatial WM and verbal WM contribute differently to Chinese character learning among three types of adult L1 speakers (i.e., Chinese, Korean, and English)? For this purpose, more than 200 participants participated in a character learning experiment with visuospatial and verbal WM tasks. The results for the first research question were as follows: In the visuospatial WM task scores, significant differences were found between the L1 Chinese and L1 English groups, and between the L1 Korean and L1 English groups. However, there was no difference between the L1 Chinese and L1 Korean groups. In the verbal WM task, no group difference was found. For the second research question, the following results were found. Visuospatial WM contributed to new character learning among L1 Chinese readers, but verbal WM predicted character learning among L1 Korean and L1 English learners. The current study suggests that reading experience in the L1 probably has different effects on the use of cognitive resources such as WM.

English Syntax

Restrictions on Extraction out of VP Ellipsis

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This research investigates the pseudo-gapping construction (e.g., Levin 1979). Pseudo-gapping is a kind of ellipsis construction, which at least lacks its main verb. One example is given in the second clause in (1), where the verb and the direct object are missing. The two elided elements are interpreted anaphorically, referring back to the elements in *italic* in the antecedent clause, namely *give* and *her new toys*, respectively.

(1) Mary won't *give Susan her new toys*, but she will **Mina**.¹⁾

How should pseudo-gapping be analyzed? According to the previous analyses, pseudo-gapping is seen as involving movement of the remnant followed by deletion of vP/VP (e.g., Jayaseelan 1990, Lasnik 1995). The derivation of (1) is represented as shown in (2).

(2) .. but [she [will [**Mina** [_{VP} ~~give *t* her new toys~~]]]]]

Given that this common analysis leads to the next question: what type of movement is involved in pseudo-gapping? With this question at hand, we will defend a particular analysis of pseudo-gapping in which the remnant is moved by A-movement (Lasnik 1995).

We begin by sharing the previous studies. As noted by Thoms (2016), he follows Jayaseelan (2001) and Gengel (2013) in identifying Move-R with Focus movement into a focused-oriented phrase, ΣP . Furthermore, he proposes that the correlate must also move to a parallel position, namely [Spec, ΣP] in the antecedent clause, and it is done by covert QR. To support his claim, Thoms suggests the following facts. First, it appears that remnant and full negation are in complementary distribution.

(3) a. Students should bring wine, but they shouldn't beer.

b. ?* Students may bring wine, but they may not beer. (Thoms 2016: 18)

1) I refer to a constituent following the elided verb as a remnant (e.g., *Mina*), and to one contrasted with the remnant in the antecedent clause as a correlate (e.g., *Susan*).

Also, Move-R can cross the boundary of an infinitival clause, but not that of a finite clause (e.g., Johnson 2008).

- (4) a. ?Kathy wants to study astronomy, but she doesn't _ meteorology.
b. *Kathy thinks she should study French, but she doesn't _ German.

(Lasnik 2006)

Thoms argues that this contrast is captured if Scope Parallelism requires the correlate to undergo QR into a parallel position. The ungrammaticality of (4b) is due to that of QR across a finite boundary. In doing so, his approach is successful in accounting for the contrast. However, Tanaka (2017) points out two problems. First, it is a dubious assumption that the remnant and the correlate must move to the [Spec, Σ P], as shown by (5).

- (5) a. The students did not date doctors, but they dated nurses.
b. The students did not date doctors, but they did _ nurses.

Second, there is a reason to deny the identification of Move-R with focus movement. In general, focus movement cannot apply to multiple elements.

- (6) Speaker A: Can you discuss this topic with John or Mary?

Speaker B: ?? I can't discuss this topic with anyone.
but that one with Mary I can discuss.

Following Johnson (2008), Tanaka (2017) argues that Move-R is an overt instance of QR. The QR approach can simply be reduced to the unavailability of Move-R out of a finite clause. Also, QR can apply as long as it is semantically allowed. It means that there is no reason to prevent QR from applying to multiple elements. Given this possibility, Tanaka concludes that the QR approach is empirically preferred.

However, we will argue that the remnant out of the elided VP ellipsis is required to be an instance of A-movement. This argument is based on the following examples. We assume that previous approaches had to explain the examples in (7) and (8).

- (7) *Sally will stand near Mag, but he won't Holly.
(8) *While Holly didn't discuss a report about every boy, she did every girl.

(Johnson 1996a: 27a,b)

Based on the relevant data, we conclude that the A-movement theory is preferable based on the behavior of Move-R patterns.

Meeting VP ellipsis derivationally

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There are two mainstreams of ellipsis resolution for a sentence involving VP ellipsis as in (1). One is the proform approach where the unpronounced VP is represented as a silent pronoun (Hardt (1993:1999), among others) while the other is the LF Structure approach where a full-fledged structure is posited at the elided site at LF. To see which one is better suited for an account of VP ellipsis construction, let us consider an interesting example (2). When an elided VP is embedded within another elided VP as in (2), the first VP can get the sloppy reading, i.e., the elided VP in (2B) is understood as ‘want to clean’. Given the elliptical parts as in (3), the second VP Ellipsis runs into a problem. Specifically, to obtain the sloppy interpretation, the elided VP should be [_{VP} want to clean], which the preceding sentence does not offer. What is interesting is that the sloppy interpretation is not available when the preceding utterance does not involve ellipsis as in (4), where the missing VP is only understood as ‘want to cook’. Despite these interpretive differences, however, (2) and (4) have an identical LF representation, undermining LF structure analysis. Although proform approach (Schwarz 2000, *inter alia*) circumvents this problem with LF structure approach, it faces other nontrivial challenges with regard to the main assumption, i.e., LF VP raising. With this state of affairs, Tomioka (2008) assumes that VP Ellipsis is an instance of PF deletion as in (5), based on Merchant (2001). He further proposes the identity condition for e-marked constituents as in (6). Illustrations (7-8) show how sentence (2) obtains sloppy reading, while (9-10) reveal how sentence (4) does not by failing to satisfy the condition. Note, however, that (11B) has a larger null VP containing a small VP replacement ‘do so’ while (12B) has a larger VP replacement ‘do so’ containing a small null VP. Nonetheless, utterance B of (11-12) allows sloppy reading ‘he didn’t want to clean’ or ‘he didn’t intend to clean’. Then, the issue here is not directly related to ‘E-feature’ since the relevant examples do not necessarily bear ‘E-feature’. Rather, the sloppy reading concerns itself with pro-usages of VP, regardless of whether the VP is realized as ‘null’ or ‘do so’. We thus attempt to offer an alternative analysis, which is partly similar to Tomioka (2008) in that it resorts to the course of derivation for an account of ellipsis but crucially differs in that it takes pro-usages of VP rather than e-feature into serious consideration in the account of sloppy readings observed in the elliptical VPs. The proposed analysis further implies that not only inflectional features but lexical features (in some limited contexts) can be ignored in the

computation of identity for VP ellipsis.

(1) When John had to cook, he didn't want to [VP].

(2) A. When John had to cook, he didn't want to \emptyset .

B. When he had to clean, he didn't \emptyset either. (Schwarz 2000: Chapter 4, (35))

(3) A. When John had to cook, he didn't want to ~~cook~~.

B. When he had to clean, he didn't ~~want to clean~~, either.

(4) A. When John had to cook, he didn't want to cook.

B. When he had to clean, he didn't, either. (Schwarz 2000: (37))

(5) E-feature marking:

a. Some heads select XPs marked for an e-feature.

b. All e-marked constituents are unpronounced.

(6) Identity condition for ellipsis:

An e-marked constituent α must have an antecedent β such that

a. The e-marking of α is identical to that of β , AND

b. α and β are LF identical up to indices and structural content of any e-marked constituents that are properly contained by α or β .

(7) LF of (2) under the sloppy reading:

A. When he had to cook, he₁ didn't want PRO₁ to [VPE cook]

B. When he had to clean, he₁ didn't [VPE want [CP [IP PRO₁ to [VPE clean]]]]

(8) a. [VPE cook]

✓ because of the presence of "when he had to [VP cook]"

b. [VPE clean]

✓ because of the presence of "when he had to [VP clean]"

c. [VPE want [CP [IP PRO₁ to [VPE clean]]]]

✓ because of the presence of "he didn't [VP want PRO₁ to [VPE cook]]"

(9) LF of (4) under the sloppy reading:

A. When he had to cook, he₁ didn't want PRO₁ to [VP cook]

B. When he had to clean, he₁ didn't [VPE want [CP [IP PRO₁ to [VPE clean]]]]

(10) a. [VPE clean]

✓ because of the presence of "when he had to [VP clean]"

b. [VPE want [CP [IP PRO₁ to [VPE clean]]]]

*because there is no VP of the form "[VP want PRO₁ to [VPE]]"

(11) A. When John had to cook, he didn't [want to do so].

B. When he had to clean, he didn't [\emptyset], either.

(12) A. When John had to cook, he didn't [intend/plan to \emptyset].

B. When he had to clean, he didn't do so, either.

Selected References

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A Labeling account of Possessor Extraction in English

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This paper first examines Possessor Extraction (PE) patterns in English (Davis, *in preparation*) that show the Highest Edge Effect (HEE) observed in Rackowski & Richards 2005 (R&R), Wurmbrand 2014, Bošković 2018. Based on the somewhat similar patterns that happen across edges, this paper then provides an account of HEE based on Chomsky's (2013) Labeling Algorithm.

Davis *in preparation* observes PE in English:

(1) PE in English

% Mary is the author [_{CP}**who**_k they said [_{CP} [_____k's new book] is good]]

Based on various sentences, which will be skipped in this abstract for the ease of exposition, Davies provides the following generalization:

(2) Who_j did you say [(/*allegedly/*fortunately) [_____j's cat]_k (allegedly/fortunately)

John found_____k]?

(3) CP edge generalization on English PE

A possessor must reach the left lenear edge of the local CP before extracting from the possessum DP.

What this paper focuses on is the requirement of being located in the left-most edge of the phase CP. The observed paradigm is somewhat similar to the patterns in Serbo-Croatian Left Branch Extraciton patterns where only the element in the highest edge can be extracted. I am assuming that SC possessors/adjectives are adjoined to the same phrase, based on the observation that they can be freely ordered (Bošković 2013). The following examples involve LBE of AP complement: such extraction is possible if and only if AP is not preceded by any other NP-modifiers, showing HEE.

- (3) a. [Na tebe] sam vidio [_{NP}**ponosnog** t_i] [_{NPOCA}]
of you am seen proud father
'I saw Jovan's father who is proud of you.'
b. *[Na tebe] samvidio [_{NP} **Jovanovog** [_{NP}[ponosnogt_i] [_{NPOCA}]]]
of you am seen Jovan's proud father
c. ?[Na tebe] sam vidio [_{NP}**ponosnog** t_i][_{NP}Jovanovog [_{NPOCA}]]
of you am seen proud Jovan's father

(4) Highest Edge Effect: Only the Highest Edge is available for Movement

While Davies *in preparation* and Bošković 2018 respectively accounts for the patterns in the fashion of *Cyclic Linearization* and *Phase Impenetrability Condition*, their systems are rather stipulative in that it is hard to tease them apart. This paper will provide an alternative account to the patterns based on the Labeling algorithm, by arguing that in a situation where multiple edges are formed, the

Algorithm must be applied in order to achieve the resulting label:

(5) [_?α [_?β[_?γ [XP]]]

Let us assume that the elements α, β, γ do not have an option of feature-sharing with XP, and thus to label (5), all of them must move for the resulting labeling (i.e. XP). This paper argues that movement of α, β, γ has to be ordered, in that the topmost (leftmost) element has to move first.

Sociolinguistics

Investigating the Use of Multi-word Verbs in Philippine English

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The creative use of multi-word verbs, being a distinct feature of the English language, tends to be a good measure of one's fluency. For native speakers, multi-word verbs seem to be easy and natural to produce, but for English learners, they are notoriously difficult because of their complex nature. Hence, this study explores the use of 76 multi-word verbs classified as activity verbs by Biber et al. (1999) in both spoken and written discourse of ICE-PHI. Specifically, it identifies the top ten multi-word verbs in the three categories (i.e. phrasal verbs, prepositional verbs and phrasal-prepositional verbs) in terms of frequency distribution, and it likewise examines their syntactic and semantic features. Results show that eight (8) prepositional verbs (i.e. look at, give NP to, go through, wait for, look for, deal with, go for, and serve as) and two (2) phrasal verbs (i.e. take up and come on) comprise the list of top ten multi-word verbs. Phrasal-prepositional verbs exist in Philippine English, but the numbers are noticeably low. Guided by Quirk et al.'s framework, analysis of the results shows that most of the utterances are constructed in the transitive form, and they adopt the active voice. Since they can be substituted by a single verb, the majority of their occurrences are idiomatic. However, there are fewer varieties of multi-word verbs found in the corpus. Pedagogical implications of the recognition and use of multi-word verbs are also discussed.

American or British? A corpus-based analysis of Asian Englishes' orthographical norms

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This study is one of the pioneers in investigating and analyzing the orthographical conventions/norms of the outer circle Asian Englishes using the largest database of English corpus, the Global Web-based English (GloWbE). This study extends the analysis of the current orthographical norms of the new varieties to their colonial parents. Results of this study indicate that there is an evident Americanization in some of the orthographical norms of the outer circle Asian Englishes, despite the fact that all of them, except for Philippine English, have British English as parent English. The results can be accounted for the emergence and proliferation of technology, initiated by the United States of America as a super power country today. This huge global influence enables American English to accelerate in indirectly colonizing the orthographical norms of these new English varieties.

‘An English teacher who teaches English’: A new language teacher’s possible selves as attractor states

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The notion of Attractor States (Hiver, 2015) was used to deconstruct the complex identity negotiation process of Almira, a new language teacher in the Philippines, during her transition into the ELT role. Three sets of in-depth interview data were gathered during three critical periods of the ELT transition. Almira’s identities were traced in the self-organisation of various system components. These components illuminated the manner in which identities settled into and converged around recurring patterns of hoped-for and feared language teacher selves (Kubanyiova, 2007; Markus & Nurius, 1986). Interactions with and feedback from mentors and experiences aid in understanding how and why Almira moved toward or away a myriad of NLT possible selves, i.e., attractor states. Crucial perturbations jolted Almira’s identity construction during the transition. Support and guidance from her cooperating teacher vis-à-vis a ‘disheartening’ trial-and-error process afforded empowerment as she began in-service practice. Interactions between this empowered identity and initial ELT experiences continued to guide Almira to negotiate predominantly hoped-for identities during the first half of her in-service practice despite organizational challenges that began to hound her ELT context. However, during the second half of Almira’s initial in-service practice, elements of the ELT system structure endangered the salience of hoped-for language teacher selves. Administrators’ lack of support raised the relevance of feared language teacher selves. These made Almira negotiate an identity she described as ‘an English teacher who teaches English.’ By using Attractor States, the challenge of identity construction during an ELT transition was configured within a complex and dynamic system of components, feedback, and perturbations. In this analysis, the complexity was absorbed by and revealed through the emergence of various possible selves within Almira’s future oriented self-concepts.

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Emotional Saliency Alignment (ESA)

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The chosen adverbs, absolutely, completely, totally, and utterly (henceforth ACTU), are frequently utilized between interlocutors in discourse. From both lexical and syntactic-analytic perspectives, these adverbs may have analogous behaviors. The majority of modern dictionaries define ACTU synonymously. For instance, they are employed notably to reinforce the truth-value of a given proposition, or to indicate maximal concurrence with a statement and/or the attitude reflected in that statement; i.e., lexically, their main purpose is to indicate degrees of potentialization for lexemes. Syntactically, this becomes evident when one refers to syntactic functions: ACTU consist of analogous syntactic functions in that these are mainly located between subjects and adjectives or verbs and they generally modify the certain lexical items including adjectives and verbs. However, from a collocational-analytic perspective, their semantic preferences appear to reflect heterogeneous natures. For example, absolutely and totally exhibit strongly affirmative semantic preferences, whereas completely and utterly manifest unaffirmative semantic preferences. In addition, the implicit emotional responses of ACTU between interlocutors in discourse appear to behave in equivalent ways as to their semantic preferences; i.e., there seems to be an associability between their preferences as to emotional saliency alignment (henceforth ESA) and semantics. ACTU clearly signal what types of implicit emotional saliency responses are expected: absolutely and totally signal a very high degree of affirmative concurrence with something, whereas completely and utterly signal a degree of concurrence with an unaffirmative sense, or with elements of unexpectedness.

English Semantics

The intensifier at the discourse level: the case of *wancen* ‘truly’

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Data and puzzle. The purpose of current study is to identify the pragmatic role of adverb *wancen* ‘truly’ in Korean. Traditionally, *wancen* has been analyzed as a modifier noun in (1). Accordingly, the hybrid uses of modifier noun (1) and adverb (2) is surprising. As shown below, when it is used as adverb, its role involve intensification (Kang & Shin 2012; Yeop & Yang 2016; Ahn 2015; Lee & Whang 2017; Lee 2018, a.o.):

- (1) *wancen* *catong* *wusan*
complete automatic umbrella
‘complete automatic umbrella’
- (2) a. *wancen* *masissnun* *ppang*
truly delicious bread
‘truly delicious bread’
- b. *wancen* *ku* *siktang-uy* *sebisu-ka* *cohta*.
truly that restaurant-Gen service-Nom be.good
‘Truly, the service of that restaurant is good.’

Mainly focusing on the role of intensifier *wancen* in (2), in this paper, our main concern is to figure out how the intensified reading arises.

At first glance, the distribution of the intensifying *wancen* seems to be pattern like typical degree adverbs, e.g. *acwu*, *maywu* ‘very.’ However, the parallel between the intensifier *wancen* and degree adverbs does not properly capture its core properties. The intensifier *wancen* exhibits meaningful distributional restrictions from other degree adverbs in that it can freely occur with non-gradable action verbs. Further, unlike *wancen*, degree adverbs cannot modify sentences.

Core properties of *wancen* is that, I argue, first, it gives rise to pragmatic intensification effect by means of veridical assertion. The empirical evidence of veridical assertion comes from the fact that *wancen* never takes narrow scope over negation operator.

- (3) *kyoswunim-uy selmyeng-ul* *wancen ihayha-l.swu.epta*
professor-Gen explanation-Acc truly understand-impossible
‘Truly, I cannot understand professor’s explanation (at all).’
- a. *wancen* > Neg
 b. *Neg > *wancen*

Also, it is degraded in information-seeking question. Second, it is sensitive to subjective veridicality. *Wancen* is subjective in that it is more likely to occur with subjective predicates (e.g. be beautiful) rather than dimensional (e.g. be big). Further, the occurrence with epistemic modals are felicitous in (4) whereas deontics are not in (5) .

- | | | | | | |
|-----|---|------------|--------|--------|-------------------|
| (4) | ipen | sicun-un | LG-ka | wancen | usungha-l.kes.ita |
| | this | season-Top | LG-Nom | truly | win-might |
| | 'Truly, (I believe) LG should win this season.' | | | | |
| (5) | #ipen | sicun-un | LG-ka | wancen | usungha-ya.tway |
| | this | season-Top | LG-Nom | truly | win-must |
| | '(intended) Truly, LG must win this season.' | | | | |

Analysis. I suggest that the intensifier *wancen* can be characterized as *subjective assertive operator* in terms of subjective verticality (Giannakidou 1999, 2015; Giannakidou and Mari 2017, a.o.). Building on Giannakidou (1994 et seq.), we treat (non)veridicality as a property of subjective spaces. The subjective spaces are the based on the epistemic state of an individual as follows:

(6) Epistemic state of an individual anchor *i* (Giannakidou 1999: (45))

An epistemic state $M(i)$ is a set of worlds associated with an individual *i* representing worlds compatible with what *i* knows or believes

$M(i)$ is the private space of *i*'s thought, belief and knowledge, and it plays a key role in truth assessment.

By using *wancen*, the speaker expresses subjective assertion which produces epistemic strengthening and there is no commitment weakening.

(7) Subjective veridicality of *wancen*: A function F that takes a proposition p as its argument is subjectively veridical with respect to an individual anchor *i* and an epistemic state $M(i)$ iff: $\forall w[w \in M(i) \rightarrow w: \{w' | p(w')\}]$

Given that M be a set of worlds, compatible with what the speaker/subject knows in w , M of *wancen* is universally quantified over p worlds, then *i* is in a state of epistemically full-commitment.

Theoretical implication of current study is to provide the widened view of cross-linguistic variation to cases where the pragmatic intensifier does not necessarily have a degree adverb, and language parameterize the semantics and pragmatics of their non-degree intensifier. The historical path further needs to be done in the connection of modifier noun use to a use of intensifier.

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On Semantics of English Verbs of Killing

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A fundamental problem in semantics is to find a principle constraining what is possible or impossible for the meaning of linguistic expressions (see e.g. the manner/result complementarity hypothesis in Rappaport Hovav & Levin, 2010; Beavers & Koontz-Garboden, 2012; Levin & Rappaport Hovav 2013; Beavers & Koontz-Garboden, 2017). In other words, what determines the semantic structure of linguistic expressions is a major inquiry in semantics. If a language had no semantic restriction, an expression would be able to have any meaning; but this is not true. In relation to this, Lee (2016) proposed a semantic principle, *the Complementarity of Intentionality and Affectedness* (henceforth, CIA), according to which a minimal accomplishment predicate (the combination of a verb and its complement(s) which is a causative accomplishment) cannot entail intention and result simultaneously. In this paper, I provide some empirical data to support the CIA.

The basic data used for the CIA include English transitive verb constructions and conative constructions. For instance, either *accidentally* or *intentionally* can modify the minimal accomplishment predicates (e.g., *opened the window* in (1a)) in the following transitive verb sentences:

- (1) a. She accidentally/intentionally [opened the window].
- b. She accidentally/intentionally [broke the table].

The modifications of *accidentally* suggest that the minimal accomplishment predicates in (1) do not entail the agent's intention about the events described by the predicates, although the default readings of the predicates are those in which the agents intentionally perform the relevant actions. Note, however, that non-intentionality is not entailed in the predicates, either, since the minimal accomplishment predicates can be modified by *intentionally*. In short, intentionality is just vague in the minimal accomplishment predicates. By contrast, the inherent results of the predicates cannot be denied, as shown in the following:

- (2) a. She [opened the window], #but it was not opened.
- b. She [broke the table], #but it was not broken.

The data in (2) show us that the relevant results are entailed in the meanings of the predicates. Thus, we can conclude that the minimal accomplishment predicates in (1) entail an inherent result, but not an intention.

Unlike the transitive verb sentences, English conative constructions are known to entail intention, but not result (see Ikegami, 1985; Levin, 1993; Goldberg, 1995; Broccias, 2001; Beavers, 2006; Vincent, 2013, among others):

- (3) a. She (#accidentally) [shot at the bird], but missed it.

b. She (#accidentally) [kicked at the ball], but missed it.

In (3) the conative predicates (e.g., *shot at the bird*) cannot be modified by *accidentally*. This suggests that the events denoted by the predicates involve the agent's intention. For instance, (3a) without the adverb roughly means that the referent of the subject deliberately shot the bird. Note, however, that the relevant results (i.e., contact) of the conative predicates can be denied as shown in (3). So the conative predicates entail only intention, but not result. In short, only one of intention and result is entailed in the minimal accomplishment predicates of transitive verb constructions or conative constructions.

However, there seem to be strong potential counterexamples to the CIA in English. For example, some verbs of killing like *murder* or *assassinate* are normally considered to entail the agent's intention (see e.g., Dowty, 1991; Talmy, 1985; Lemmens, 1998; Kamp, 1999-2007; Grano, 2015, among others), and the patient must die for a sentence headed by the verb to be true. If those verbs really entail both result and intention simultaneously, and thus minimal accomplishment predicates headed by the verbs entail both result and intention at the same time, then they can counterexemplify the CIA, and this semantic hypothesis should be modified or rejected.

However, in this paper I present the data collected from the Web to show that the English verbs of killing do not actually entail intention, though intentional interpretations are their default readings. If they really entail the agent's intention, the prediction is that they cannot be modified by adverbs like *intentionally* or *deliberately*. In other words, such modifications should not be found in the Web. However, this prediction is not borne out, as shown in the following:

(4) "JFK: An Accidental Assassination? From investigating Oswald's jagged biography, his emigration to the Soviet Union as a communist and other documents anew, Reston shows the ex-Marine felt a hatred for the other man riding in the parade convertible. That was tall John Connally, the governor of Texas, who was shot and severely wounded, but lived..." (<https://www.usnews.com/opinion/blogs/Jamie-stiehm/2013/11/05/was-the-assassination-of-john-f-kennedy-just-an-accident>)

In (4) *accidental assassination* describes a hypothetical situation in which Oswald shot at John Connally, but John F. Kennedy was shot and died. This shows that *assassination* does not entail intention. Assuming that the basic meaning of *assassinate* is identical to that of *assassination*, we can say that the verb and the minimal accomplishments headed by the verb do not entail intention. I argue that the Web data like (4) empirically support the CIA, and this semantic principle can serve as an important condition on how the meanings of minimal accomplishment predicates are systematically constructed in natural languages such as English.

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딥러닝을 통한 영어학 연구하기: 방법과 실제

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본 발표는 딥러닝 시대의 영어 연구에 관련된 기초적 이해를 조금이나마 돕고자 하는 데 목적을 두고 있다. 딥러닝의 시대가 열리면서 여러 학문 분야에서 그 기재를 연구방법론에 포함하고자 하는 시도가 큰 관심을 끌고 있다. 인문학 분야도 예외는 아니어서 그 가운데 자연언어를 연구의 대상으로 삼는 언어학 그리고 영어학에서도 최근 딥러닝에 대한 적극적 모색을 도모하고 있는 실정이다. 이처럼 적극적 요구는 존재하나, 아직 딥러닝 기술을 어떻게 활용하여 영어 연구를 수행할 것인가에 대해서는 구체적인 방안이 마련되고 있지 못한 형편이다. 또한 학문 후속 세대들에게 무엇을 가르치고 어떻게 가르칠 것인지에 대해서도 많은 논의는 있으나 구체적인 항목은 제시되지 못한 형편이기도 하다. 이에 딥러닝 시대에서 영어를 연구하기에 필요한 제반 환경과 변화된 양상을 돌아보고 구체적인 연구 사례를 소개하고자 한다. 이를 통해 국내 여러 영어학 연구자 및 교수자가 무엇을 준비하여야 하고 그에 기반하여 어떠한 연구를 기획하고 나아가 어떠한 교수법을 개발할 수 있는가를 개괄적이거나 이해할 수 있도록 본 발표는 구성될 것이다.

Apposition and Dependence

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As is well known, English has two different constructions of apposition: the loose appositive construction (henceforth, AC) illustrated in (1a) and the close AC illustrated in (1b). The most obvious difference between the two constructions is whether there is a comma between the anchor and the appositive. If there is a comma, it is a loose AC. If there is no comma, it is a close AC.

(1) a. The linguist, Chomsky, is one of the most influential researchers of the 21st century.

b. The linguist Chomsky is one of the most influential researchers of the 21st century.

As Kim (2012, 2014) notes, the presence or the absence of the comma makes significant fundamental changes since the two constructions basically differ in intonation and meaning. As to the intonation, the appositive of the loose AC serves as a phonologically-isolated phrase unlike that of the close AC. There is a difference in their semantics, too. In the close AC, it is suggested that there are several linguists who are considered. However, in the loose AC, only one linguist is referred to and additional information about the referent is supplemented. (Quirk et. al. 1985, Acuna-Farifna 1999, 2009, Huddleston and Pullum 2002).

In addition to the basic contrasts, Kim (2012, 2014) discusses more grammatical differences between the two constructions and conclude that the loose AC is a head-modifier construction where the appositive induces the conventional implicature while the close AC is a modifier-head construction where the head requires a definite expression. This paper would like to develop the works of Kim (2012, 2014) on appositive constructions since there is a point that can be deemed problematic in his works, despite his great achievements. Bach (1999) claims that the conventional implicature can be a dubious concept in linguistics. Acknowledging problems of the notion of the conventional implicature, this paper provides an alternative to Kim's proposal that does not rely on the conventional implicature, using the Qualia Structure proposed by Pustejovsky (1996). The Qualia-based alternative account on the AC will further explain additional grammatical differences observed between the two constructions.

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-Na, an atomized pairing operator with a Skolemized choice function

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In this presentation, I suggest the compositional semantics of the alleged disjunctive particle, -na, in Korean. There are three puzzling points regarding the -na constructions: (1) the prevalently conjunctive meaning than expected under the normal disjunction system, (2) having a universal quantificational force when it combines with a wh-indeterminate phrase, not an existential force, (3) the concessive scalar meaning (the so-called second-best choice meaning, Yang (1973)). I try to provide an analysis of -na that covers all these instances instead of a conventional homophony approach. Due to the time restriction, The discussion will focus on the puzzle (1), but the implication will be that the analysis can be applied to other types of constructions by suggesting the unification of the type of argument that -na overtly takes: the type of argument that -na takes is the set-forming items, not individuals. I will eventually suggest that -na is not a disjunction connector, the realization of a Boolean meet operator in a natural language, but a sentential operator that involves a Skolemized choice function in the proposition that it derives. An event argument should be counted to do a crucial role here.

English Education

Applied Linguistics

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검정고시는 「초·중등교육법」 제27조의2에 따라 전쟁, 재난, 개인의 사정 등으로 초·중·고등학교에 진학하거나 졸업하지 못했지만, 해당 학력이 필요한 국민을 위해 학력 인정을 받을 기회를 제공하는 국가시험이다. 검정고시는 교육과정에 따라 개발된 3종 이상의 검·인정 교과용 도서에서 공통으로 다루는 내용을 토대로 출제된다. 영어 과목 역시 교육과정과 검·인정 교과용 도서를 바탕으로 교육과정에서 제시한 기본 어휘를 사용하여 해당 학력 졸업 정도의 지식과 그 응용능력을 측정할 수 있는 수준으로 출제된다. 이러한 출제 방식은 대학수학능력시험과 유사한 출제 방식이지만, 대학수학능력시험에 사용된 어휘 양상 연구에 비해 같은 국가시험인 검정고시에 사용된 어휘 분석 연구는 미비한 상황이다. 따라서 본 연구에서는 2007 개정 영어과 교육과정에서부터 현재 적용되고 있는 2009 개정 영어과 교육과정에 따라 출제된 초졸·중졸·고졸 검정고시 출제 문항을 코퍼스화 하여 영어과 교육과정에 따른 기본 어휘와 검정고시에 사용된 어휘를 비교 분석하고, 해외에서 연구되어 제안된 기본 어휘 목록과 비교하여 검정고시에 사용된 어휘를 다각적인 측면에서 살펴보고자 한다.

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Needs analysis of Korean EFL learners' comprehensibility

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The purpose of this study is to investigate the needs of advanced L2 EFL learners' for a communicative purpose concerning L2 comprehensibility. Despite the importance in L2 comprehensibility, not many studies have conducted the relation between adult learners' needs and their L2 speech. 40 Korean EFL learners were participated in timed-picture description speaking tasks as well as answering several questionnaires related to L2 classrooms, and these were analyzed with respect to self-rating L2 comprehensibility. Results indicated that advanced L2 learners with relatively high degree of comprehensibility tend to focus more on writing as well as speaking, while others with rather low degree of comprehensibility request the need of speaking only. Therefore, this study implies a teaching implication for L2 practitioners in the way that advanced EFL learners have distinct motivations as well as specific course directions for a language classroom.

학습자 코퍼스 기반 아시아 학생의 지시대용어 분석

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이 연구는 아시아권 학생들이 논쟁적 에세이를 기반으로 구축된 학습자 코퍼스를 기반으로 대용어(Anaphora)를 어떻게 사용하는지 분석했다. 다양한 대용어 중 이번 연구에서는 지시대용어(Demonstrative anaphora: *this/that, these/those*)를 중심으로 분석을 하였다. 대용어는 기본적으로 글을 이해하고 새로운 정보를 처리하는 과정에서 반복적으로 등장하는 개념들을 언급할 때 사용되는 대표적인 언어학적 장치로 EFL 학습자들 중 아시아권, 한국, 중국, 일본 학습자들이 담화 인지 장치의 하나인 지시대용어를 논쟁적 에세이에서 어떻게 사용하는지 코퍼스 기반으로 분석을 하였다. 이를 위해 학습자 코퍼스와 원어민 학습자 코퍼스(LOCNESS)를 이용하여 빈도수 기반의 패턴을 비교분석 했다. 이 연구의 결과 값은 아시아권 학생들은 원어민 학습자들과 비교해서 지시대용어를 적게 사용한 것으로 나타났다. 논쟁적 에세이 특성상 작가의 의견이나 주장을 자신이 원하는 대로 논점을 유도하고자하기 때문에 자연스럽게 지시대용어를 일정 수준 사용 할 것으로 예상이 된다. 하지만 아시아권 학습자들의 경우는 이러한 빈도수에서 차이를 보임으로 자신들의 의견이나 견해를 이끌어가는 방식에 일정 부분 제한이 있는 것으로 유추 할 수 있다. 아시아권 학생들 사이에서도 차이를 보이는데 한국인 학습자의 경우는 *that*의 사용이 원어민에 비해 두드러지는데 주로 지시대명사 보다는 지시형용사로써 *that*을 많이 사용하는 것으로 나타났다. 중국인 학습자의 경우는 원어민에 비해 *those*를 두드러지게 사용하고 있는데 주로 지시형용사로 많이 사용 했다. 일본인 학습자의 경우는 원어민에 비해 *this*를 두드러지게 적게 사용하고 있다. 지시형용사/지시대명사로써의 *this* 둘 다 적게 사용하는 것으로 나타났다. 본 연구에서 분석한 아시아권 학습자들의 지시대용어 사용은 여러 관점에서 응용할 수 있을 것이다. 우선 영어교육 분야에서의 응용이다. 예를 들면 언어의 자연성(naturalness)의 관점에서 보면 지시대용어의 사용은 언어가 실제 사용되는 사회, 문화적인 관점에서의 각 장르마다 어떤 특징과 스타일을 가지고 있는지 학습할 필요가 있다. 과거의 언어교육이 이런 언어의 특징을 고려하지 않아 자연스러운 언어 사용에 제한이 있었던 것은 분명하다. 이러한 특징은 학습자들이 언어 인지(Language awareness)를 기반으로 글의 스타일과 화용론적인 특징들을 이해할 필요가 있고 글의 요지를 파악하는 능력을 향상시킬 수 있는 주요한 요소 중 하나이기 때문에 교육적 가치가 높다 할 수 있다.

Lexical Bundles in Linguistics Core Text Books

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Acquiring adequate vocabulary is pivotal in academic discourse, primarily because it provides students and professionals alike with a useful means to properly communicate and participate in relevant academic discourse communities. At the same time, the notion of appropriate lexis has undergone a gradual but significant shift such as to include both a set of words and recurrent word combinations (Carter 2006). Research on such word combinations has been one of the fast growing fields in linguistics (Hyland 2008), which prove to permeate all areas of natural language (e.g. Simpson-Vlach & Ellis 2010). These prefabricated linguistic units can also function as a key index to language competence, while presenting major challenges especially for non-native speakers, mainly because “they are language specific and enormous in number” (Liu 2012: 25).

The tools and methods in corpus linguistics have immensely facilitated and enriched the research on recurrent multi-word sequences in a wide range of areas and perspectives. Multi-word units were proved to serve the role of characterizing a text as belonging to a particular register (e.g. Biber et al 2004; Hyland 2008). They also turned out to be indicative of developmental differences between different groups of writers: student and professional (e.g. Chen & Baker 2010; Cortes 2004), and native and non-native writers (e.g. Chen & Baker 2010; Ädel & Erman 2012; Kim & Lee 2017). Recent years have witnessed an increasing body of literature on the discipline-specific multi-word combinations (e.g. Hsu 2015; Gilmore & Millar 2018), which suggests their teaching worthiness and useful pedagogical implications for training non-native and novice writers in specific disciplines.

Given the significant role of the knowledge of multi-word combinations, the current study aims to establish a list of multi-word constructions derived from core linguistics textbooks in English commonly utilized in Korean tertiary institutions. In doing so, this research seeks for practical implications on educating students in linguistics to attain adequate lexical knowledge necessary for successful reading comprehension. This study is guided by the following research questions.

1) What are the most frequent three- and four-word sequences in core linguistics textbooks?

2) What are predominant characteristics of multi-word units typical of the discipline of linguistics?

This study identified 274 3- and 4-word lexical bundles (LEBL) employing both quantitative (Wordsmith 7.0) and qualitative methods. The finalized bundles were first investigated in terms of their structural properties, using the structural taxonomy modified from Biber et al. (1999). The results of the structural analysis revealed that NP-based and PP-based bundles account for almost 80 percent of the whole bundles. This result accords with a tendency observed in the literature (e.g., Chen and Baker 2010), that professional academic writing contains much more intensive use of NPs, compared to student writing (both native and non-native). The analysis of the functional taxonomy of lexical bundles indicated that a high proportion of the lexical bundles in the LEBL serve referential functions (84.9%), whereas much less of them are stance discourse organizers (8.6%) and stance expressions (6.5%). The results here add corroborative evidence to those of several previous studies (e.g. Liu 2012; Hsu 2015). The current study also produced a few findings regarding subject relatedness of the yielded lexical bundles. A notable number of linguistics-specific (sub)-technical lexical bundles were identified students ought to acquire for the appropriate comprehension of the texts. This study further yielded results that feature LEBL including the presence of colloquial expressions (i.e., a lot of or pronoun-framed bundles), a higher frequency of the passive constructions and the notable number of the tokens of the bundle *around the world*.

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모바일 애플리케이션을 활용한 영어 어휘 학습 효과

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본 연구는 모바일 애플리케이션을 사용한 영어 단어 학습의 효과를 알아보려는 목적을 가지고 애플리케이션의 학습 내용 및 구성 방식이 학습 어휘에 대한 지식 증진에 효과가 있는지를 실험을 통해 살펴보았다. 이를 위해 대학생 및 대학 졸업생 40명을 대상으로 모바일 애플리케이션 워드캐스트(wordcast)를 사용한 어휘학습을 진행하였다. 실험 참여자들은 애플리케이션 사용에 관한 안내를 받은 후 개별적으로 100개의 단어 학습을 4일에 걸쳐 진행하였다. 학습 효과는 사전, 사후 검사를 통해 검증하였으며 설문지를 통해 애플리케이션의 내용 및 효과에 대한 참여자들의 의견을 조사하였다. 실험 결과, 참여자들의 사후검사 점수는 사전검사에 비해 유의미하게 상승했으며 해당 어휘의 의미를 전혀 모른다고 답한 문항의 비율은 69%에서 39%로 크게 감소하였다. 이는 애플리케이션을 통한 단어 학습이 효과가 있었음을 보여준다. 설문 조사 결과, 참여자들은 대체로 애플리케이션을 통한 어휘학습 과정이 편리하고 효율적이라고 평가하였으며, 애플리케이션을 활용한 어휘학습을 지속할 의사가 있는 것으로 나타났다. 다만 학습 결과의 지속성에 대해서는 의문을 갖는 것으로 나타났으며, 학습의 흥미 면에서 상대적으로 낮은 만족도를 보여 해당 부문에서의 보완이 필요할 것으로 생각된다.

Using Listening-Based Instruction to Improve Young Learners' Vocabulary Acquisition

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Over the last decade, publications on instructed second language acquisition—such as Ellis and Shintani (2013), Loewen (2015), and Loewen and Sato (2017)—have made the implementation and optimization of classroom instruction that assists and promotes language acquisition an increasingly vital topic for language educators and researchers. Despite this trend, research on the role of second language instruction with respect to young learners is limited, specifically as to how the quality and quantity of input contributes to second language development. In this presentation, I will highlight evidence-based research showing how a classroom rich in second language input can support the development of vocabulary knowledge among young learners. I will draw on recent work by both myself and my colleagues that investigates the impact of listening-related interventions on the second language vocabulary skills of Korean elementary school students.

The dynamic nature of learner motivation in Korea: a structural equation modeling approach

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The study is twofold; to identify the construct of learner motivation among high school and university students in Korea and to explore any differences between the two groups. A total of 385 Korean students (high school students = 184, university students = 201) completed the learner background and motivation questionnaires in 2017–2018. The collected data were submitted to the structural equation modeling (SEM) analysis as well as an independent t-test to examine any group differences. As results, the university students reported a higher level of the ideal L2 self, more positive attitudes toward learning English, and more motivated behavior than the high school students. However, the two groups did not differ in terms of the ought-to L2 self, family influence and prevention-based instrumental motivation. The SEM analysis revealed that the ought-to L2 self was a significant predictor of motivated behavior in the high school group ($p = .017$) but not in the university group ($p = .428$). In both groups, attitudes toward learning English, mediated by the ideal L2 self, turned out to be the strongest predictor of motivated behavior. Further discussed are the socioeducational reasons for these differences and the pedagogical implications of the findings.