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2016

The 8th Conference on Language, Discourse, and Cognition  
第八屆 語言、言談、與認知國際研討會

D C

*Program Book*

May 13th-14th, 2016

Organizers:

Graduate Institute of Linguistics, National Taiwan University  
Department of Psychology, National Taiwan University  
Linguistic Society of Taiwan

Sponsor:

Ministry of Science and Technology, Taiwan

# **CLDC 2016**

## **The 8<sup>th</sup> Conference on Language, Discourse, and Cognition**

第八屆語言、言談、與認知國際研討會

### **General Theme:**

Cognitive Linguistics and Interdisciplinary Studies

### **Special Theme:**

Language Variation and Cognition

### **Date:**

May 13<sup>th</sup> -May 14<sup>th</sup>, 2016

### **Venue:**

Conference Hall, College of Liberal Arts,  
National Taiwan University

### **Organizers:**

Graduate Institute of Linguistics, National Taiwan University  
Department of Psychology, National Taiwan University  
Linguistic Society of Taiwan

### **Sponsor:**

Ministry of Science and Technology, Taiwan

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## **Introduction**

The 8th Conference on Language, Discourse, and Cognition (CLDC 2016) will be held from May 13th to 14th in 2016, and co-hosted by Graduate Institute of Linguistics, Department of Psychology, Neurobiology and Cognitive Science Center at National Taiwan University, and Linguistic Society of Taiwan.

The CLDC aims to provide a forum for researchers interested in language, discourse, and cognition to discuss new research findings, exchange innovative ideas and share the approaches in these fields. The topics relevant to language, discourse, and cognition as well as the interdisciplinary studies stimulated over the last few years have given rise to a growing body of critical findings, making CLDC an important event in the field of cognitive linguistics in East Asia. We hope that the CLDC 2016 meeting will continue to attract a greater number of international researchers to participate in the dialogue. CLDC 2016 aims at research in cognitive linguistics and interdisciplinary studies. The meeting will be comprised of a general theme of “COGNITIVE LINGUISTICS AND INTERDISCIPLINARY STUDIES” and a special theme of “LANGUAGE VARIATION AND COGNITION.”

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## **Guidelines**

### **For Oral Presenters**

1. Presentation files are collected on the presentation day. For presenters in the morning sessions, please give us your files during the registration period (8:30 – 8:50). For presenters in the afternoon sessions, please give us your files during the lunch break.
2. Presentation time: 20 minutes per presentation (plus 10 minutes QA).
3. The conference language is English.
4. No printing or copying facilities are available for use on the conference site. If you plan to give handouts to the audience, please prepare the copies on your own.

### **For Poster Presenters**

1. Please have your poster dimension in A0 size. The designated boards we provide for you is in VERTICAL direction.
2. Presenters must be present at their posters during the poster session period.
3. The conference language is English. Please have your presentation/materials in English.
4. Posters can remain on display until the end of the presentation day.
5. No printing or copying facilities are available for use on the conference site. If you plan to give handouts to the audience, please prepare the copies by yourself in advance. 50-60 copies for each session is suggested.

## **Regulations of the Conference**

1. Please turn off your cell phone or other electronic devices and wear your nametag all the time during the conference.
2. Food or smoking is not allowed in the conference room.
3. Please return your plastic name tag to the registration desk at the end of the conference.

NTU MAIN CAMPUS MAP

# 國立臺灣大學 校總區地圖





# The 8<sup>th</sup> Conference on Language, Discourse, and Cognition (CLDC 2016)

## Conference Program

**Conference Dates:** May 13<sup>th</sup>-May 14<sup>th</sup>, 2016

**Venue:** Conference Hall, College of Liberal Arts, National Taiwan University

<b>May 13<sup>th</sup>, Friday</b>	
8:30-9:10	REGISTRATION
9:10-9:30	OPENING REMARKS
9:30-10:30	<p><b><u>KEYNOTE SPEECH I</u></b></p> <p>Onomasiological variation and lexical lectometry: Disentangling demotization and destandardization</p> <p><b>Prof. Dirk Geeraerts</b> <i>University of Leuven</i></p> <p><b>Chair: Wen-Yu Chiang</b> <i>National Taiwan University</i></p>
10:30-11:00	TEA BREAK
<p><b>Special Session I: Language Variation and Lexical Studies</b></p> <p>Chair: Prof. Dirk Geeraerts <i>University of Leuven</i></p>	
11:00-11:30	<p>Lexical choices and event representation in the narratives of Cantonese-speaking children with and without language impairment</p> <p><b>Hintat Cheung</b> <i>The Hong Kong Institute of Education</i></p>
11:30-12:00	<p>Typological study on expressions of ability and possibility in English, Chinese and Japanese</p> <p><b>Satoko Imaizumi</b> <i>Hokkaido University</i></p>
12:00-13:30	LUNCH
<p><b>General Session I: Cognitive Semantics</b></p> <p>Chair: One-Soon Her <i>National Chengchi University</i></p>	

13:30-14:00	Semantic extension of visual perception verbs in Cantonese <b>Michelle Li</b> <i>Caritas Institute of Higher Education</i>
14:00-14:30	Expressing the self in Korean <b>Hye-Kyung Lee</b> <i>Ajou University</i>
14:30-15:00	Distinguishing <i>demi</i> , <i>bagi</i> , <i>tentang</i> , and <i>untuk</i> in Malay: A corpus-based approach <b>Siaw-Fong Chung</b> <i>National Chengchi University</i>
15:00-16:00	<b>POSTER SESSION &amp; TEA BREAK</b>
<b>General Session II: Psycholinguistics and Neurolinguistics</b> Chair: Chia-Lin Lee <i>National Taiwan University</i>	
16:00-16:30	Justifying the left-branching analysis of Chinese classifier phrases: Evidence from speech perception and production <b>Ying-Chun Chen<sup>1</sup>, Marc Tang<sup>2</sup>, One-Soon Her<sup>1</sup> and Nai-Shing Yen<sup>1</sup></b> <i>National Chengchi University<sup>1</sup>, INALCO-CRLAO (Center of Linguistic Research of South-East Asia)<sup>2</sup></i>
16:30-17:00	L2 proficiency and sentence context affect interlingual lexical activation: Evidence from eye movements of Japanese-Chinese bilinguals <b>Yi-Lun Weng and Jie-Li Tsai</b> <i>National Chengchi University</i>
17:00-17:30	Multimodal perception. How our sensorimotor experience influences the perception of words? <b>Elena Nekrasova and Zoya Rezanova</b> <i>National Research Tomsk State University</i>
17:30-18:00	No difference in temporal orientation among Chinese, Japanese and English speakers <b>Jenn-Yeu Chen<sup>1</sup>, Misato Oi<sup>2</sup>, Hirofumi Saito<sup>2</sup> and Padraig O'seaghdha<sup>3</sup></b> <i>National Taiwan Normal University<sup>1</sup>, Nagoya University<sup>2</sup>, Lehigh University<sup>3</sup></i>
18:30-21:00	<b>BANQUET</b>

<b>May 14<sup>th</sup>, Saturday</b>	
8:30-9:00	REGISTRATION
9:00-10:00	<p><b><u>KEYNOTE SPEECH II</u></b></p> <p>An analysis of the polysemous word ‘bao’ - A variational &amp; cognitive approach</p> <p><b>Prof. Feng-fu Tsao</b> <i>National Tsing Hua University</i></p> <p><b>Chair: Lily I-Wen Su</b> <i>National Taiwan University</i></p>
10:00-10:30	TEA BREAK
<p><b>Special Session II: Language Variation and Multimodality</b></p> <p>Chair: Prof. Feng-fu Tsao <i>National Tsing Hua University</i></p>	
10:30-11:00	<p>A case study of pitch accent shift in the Ryukyuan languages</p> <p><b>Chihkai Lin</b> <i>Soochow University</i></p>
11:00-11:30	<p>The distribution of ideophones in Tang poems: A variationist perspective</p> <p><b>Thomas Van Hoey and Chiarung Lu</b> <i>National Taiwan University</i></p>
11:30-12:00	<p>Compositional patterns in modern western paintings: A multimodal exploration</p> <p><b>Hsin-Yen Chen and Lily I-Wen Su</b> <i>National Taiwan University</i></p>
12:00-12:30	<p>Rhythmic synchrony in conversational speech</p> <p><b>Li-Chiung Yang</b> <i>Tunghai University</i></p>
12:30-13:30	LUNCH
<p><b>General Session III: Cognitive Pragmatics</b></p> <p>Chair: Chiarung Lu <i>National Taiwan University</i></p>	
13:30-14:00	<p>Metaphor and internet-based mental healthcare in Hong Kong</p> <p><b>Dennis Tay and Jin Huang</b> <i>The Hong Kong Polytechnic University</i></p>
14:00-14:30	<p>On the absence of deictic motion verbs ‘come’ and ‘go’ in Tsou</p> <p><b>Huei-Ju Huang</b> <i>Kainan University</i></p>

14:30-15:00	Misunderstandings as negative evidence: Considerations on multimodal aspects in discourse <b>Taro Okahisa</b> <i>Kyoto University</i>
15:00-15:30	Postnominal possessives, affect and discourse establishedness in Central Mongolian <b>Gegentana Ayanga, Benjamin Brosig and Foong Ha Yap</b> <i>The Hong Kong Polytechnic University</i>
15:30-16:00	TEA BREAK
16:00-17:00	<b><u>KEYNOTE SPEECH III</u></b> The accumulation of knowledge and language variation <b>Prof. Harald Baayen</b> <i>University of Tübingen</i>  <b>Chair: Shu-Kai Hsieh</b> <i>National Taiwan University</i>
17:00-17:10	CLOSING REMARKS

## **Poster Session (Day 1)**

### **Mandarin-speaking children's expressions of motion events in conversation and narration**

Yu-Han Cheng and Chiung-Chih Huang

*National Chengchi University*

### **A validation of EAP reading materials based on multiple corpus analyses**

Hyeon Okh Kim

*Ajou University*

### **Modeling lexicalization in Chinese: Quantitative profiling and qualitative analysis**

Po-Ya Angela Wang and Shu-Kai Hsieh

*National Taiwan University*

### **Semantic extension of Indonesian verb *dapat*: A cognitive perspective**

Aarin Sirima

*National Taiwan University*

### **Conditionals in physician-to-physician interaction**

Wan-Hua Lin

*National Changhua University of Education*

## **Onomasiological variation and lexical lectometry: Disentangling demotization and destandardization**

Professor Dirk Geeraerts  
*University of Leuven*

### **Abstract**

This talk is situated at the crossroads of two fields of inquiry:

-- on the one hand, the corpus-based study of lexical and semantic variation that has been the main focus of my research team since the publication of Geeraerts et al. 1994, *The Structure of Lexical Variation. Meaning, naming and Context* (Mouton);

-- on the other hand, the sociolinguistic tradition initiated by Tore Kristiansen that looks at recent developments in the European languages in terms of 'destandardization' and 'demotization'.

Specifically, the talk argues

1) that the quantitative methods for onomasiological lectometry that derive from the first tradition (and which treat lexical variation among synonyms as a quantifiable sociolinguistic variable in the Labovian sense) help to clarify a number of issues related to the second tradition;

2) that the binary distinction between 'destandardization' and 'demotization' is not adequate enough to capture the multidimensional nature of standardization processes, in which the following three, mutually independent oppositions need to be distinguished:

- standardization versus destandardization, defined as a decrease or an increase of the differences between the levels in a stratificational continuum;
- formalization versus informalization, defined by the direction of standardization as just defined (from bottom layer to top layer or conversely);
- homogenization versus heterogenization, defined as an increase or decrease in the internal uniformity of a given layer, regardless of its relationship to the other layers.

These processes will be illustrated by means of a longitudinal study of contemporary Dutch, contrasting Netherlandic Dutch and Belgian Dutch, and zooming in on the relationship between formal and colloquial Belgian Dutch.

**An Analysis of the polysemous word ‘bao’ –  
A variational & cognitive approach**

Professor Feng-fu Tsao  
*National Tsing Hua University*

**Abstract**

J. L. Austin in a seminal paper written in 1940 and published in 1961, pointed out the inadequacy of simply analyzing the different meanings of ‘cricket’ in phrases such as ‘a cricket bat’ and ‘a cricket ball’ and ‘a cricket umpire’ as simply ‘used in cricket’. This is because we cannot explain what we mean by ‘cricket’ except by explaining the special parts played in cricketing by the bat, ball, etc.

G. Lakoff(1987) in commenting on Austin’s analysis, further pointed out that it is a case of polysemy which involves what he and Johnson(1980) called Idealized Cognitive Model(ICM), that is a reader, when he sees the word ‘cricket’ as used in the above-mentioned phrases will have to invoke the ICM of cricketing to understand the meaning of the word ‘cricket’ in them.

In a similar manner we find the different senses the polysemous word bao‘爆’, as used in Taiwan Mandarin can all be explained by referring to the ICM of explosion. We also find that the polysemous word has developed different senses in Hong Kong, Taiwan and Mainland China, but these different senses are all related to the ICM of explosion.

## **The accumulation of knowledge and language variation**

Professor Harald Baayen  
*University of Tübingen*

### **Abstract**

The history of mankind is characterized by constant change. One aspect of this change is the rise, spread, and demise in time and space of civilizations and religions. Another, perhaps more systematic, aspect of this constant change is that technological innovations, and thanks to these innovations, the amount of information available to agents in human societies has been increasing exponentially. The accumulation of ever more differentiated experiences is reflected in vocabulary size. Historical corpora show that in languages such as German and English, the numbers of different words has been increasing over time. Chinese and Vietnamese appear to have started out with lexicons in which monosyllabic words were the norm, but with increasing onomasiological needs, two-syllable (compound) words are now in the majority.

The accumulation of knowledge does not come without processing costs. Since lexical entropy increases as vocabulary size increases, it is inevitable that it will require more processing effort to locate words in or retrieve words from the lexicon as experience accumulates.

In my presentation, I will present the results of investigations into the consequences of the accumulation of knowledge at two time scales: the lifetimes of individual speakers, and intervals of time spanning multiple generations of speakers. The focus will be on how speakers and societies adapt to the increasing processing demands that accrue over the years.



## **Lexical choices and event representations in the narratives of Cantonese-speaking children with and without language impairment**

Hintat Cheung

*The Hong Kong Institute of Education*

Narrative is a window to the understanding of language development in children. Various methods, such as narrative profile and micro/macro levels of assessment, have been proposed. However, very often form and function are examined either holistically or separately without assessing their interactions. The present study is a new attempt in examining interactions between form and function in children's narratives. Narrative samples from 120 Cantonese-speaking children, age 6 to 9, archived in a completed normative study were used (Tsou et al 2006). Sixty samples were from children with language impairment and 60 were from age-matched controls. These samples were elicited by a story-retelling task with the aid a 24-framed picture book. Four types of verb, each stands for a different structural configuration and a different level of event and character representation (Nicolopoulou and Richner 2007) were examined. The results showed that the language impaired group encoded motion event at a level comparable to their age-matched controls but performed below age expectation in the other three types of verb. Children with language impairment often failed to describe the mental state of the characters. Furthermore, the younger children groups and the language impaired group used a wider range of action verbs that are semantic approximations of the target word. These variations in lexical choice were found to be related to its syntactic structure. Through a form-function analysis of verbs used in narrative samples, it is shown that Cantonese-speaking children with language impairment displayed certain limitations at both lexical and syntactic levels which might further be linked to their social cognitive skills.

### **References**

- Nicolopoulou, A., & Richner, E. S. (2007). From actors to agents to persons: The development of character representation in young children's narratives. *Child Development, 78*(2), 412-429.
- T'sou, B., Lee, T., Tung, P., Chan, A., Man, Y., To, C. (2006). *Hong Kong Cantonese Oral Language Assessment Scale*. Hong Kong: City University of Hong Kong Press.

## Typological study on expressions of ability and possibility in English, Chinese and Japanese

Satoko Imaizumi  
*Hokkaido University*

The purpose of this study is to reveal the semantic space of ability and possibility by comparing cross-linguistic variability of their linguistic encoding in three languages: English, Chinese and Japanese.

Most languages possess certain linguistic forms that express ability and possibility. As Wierzbicka (1996) includes ‘CAN’ as one of the ‘semantic primes’, which is a universal set of innate concepts, ability and possibility seem not to be cultural specific concepts but universal concepts shared by speakers of different languages around the world. However, she also mentions that ‘CAN’ is particularly difficult to identify, which is partly because it is often involved in complex patterns of polysemy. The English auxiliary verb ‘*Can*’ is used to express ability, (epistemic) possibility, as well as permission. Chinese has a more diverse set of markers: ‘*Hui*,’ ‘*Neng*’ and ‘*Keyi*.’ Although they are also multifunctional among those functions, they display a different multifunctional network from that of English. In Japanese, one of the potential markers ‘*-(r)are*’ is attached to verbs to express ability/possibility but is not used for epistemic possibility. This marker, on the other hand, also express passive, spontaneous and respective. As Shibatani (1985) claims that they all have an ‘agent defocusing’ effect, they are usually discussed as voice phenomena rather than modality. These facts show that ability/possibility are complex concepts that straddle between modality and voice; and they are conceptualized in different ways in different languages. Therefore, to reveal the universal semantics of them, we need a typological study beyond linguistic categories such as voice and modality. Thus, this study adopts the ‘semantic map,’ which is “a method for describing and illuminating the patterns of multifunctionality of grammatical morphemes (Haspelmath 2003:213)”. This method is based on the idea of Radical Constructional Grammar advocated by Croft (2001) which tries to discover the universals of human language through exploring linguistic diversity. As for comparing auxiliary verbs of English and Chinese, the modality’s semantic map presented by van der Auwera and Plungian (1998) and Li (2003) are useful. However, Japanese potential markers do not fit in this map.

This study builds a semantic map of ability, possibility and related functions around them in three languages. The forms picked up are: English ‘*Can*’ and ‘*Could*,’ Chinese ‘*Hui*,’ ‘*Neng*,’ ‘*Nenggou*’ and ‘*Keyi*’ and Japanese ‘*-eru*,’ ‘*-(r)areru*’ and ‘*-dekiru*’. Firstly, contexts where these forms are used are collected from a parallel corpus whose data are selected from a Japanese novel and its translations in English and Chinese. Secondly, corresponding translations of each context in other languages are collected. Thirdly, similarities of each context are mapped using Multi-Dimensional Scaling (MDS) by ‘R’ based on their Hamming distances.

By visualizing the (dis)similarities of each linguistic marker, this study provides a non-language-specific study of ability/possibility to reveal the semantic space of them and show how they are conceptualized and categorized in each language.

## References

- Croft, William (2001) *Radical Construction Grammar*. Oxford University Press.
- Haspelmath, Martin (2003) "The geometry of grammatical meaning: Semantic maps and cross-linguistic comparison" In M. Tomassello (ed.), *The New Psychology of Language: cognitive and functional approaches to language structure (vol.2)*. Lawrence Erlbaum: 211-242
- Li, Renzhi (2003) *Modality in English and Chinese: A Typological Perspective*. Dissertation.com
- Shibatani, Masayoshi (1985) "Passives and related constructions: A prototype analysis" *Language* 61-4: 821-848
- van der Auwera, J and Plungian, V A (1998) "Modality's Semantic Map" *Linguistic Typology* 2: 79-124
- Wierzbicka, Anna (1996) *Semantics: Primes and Universals*. Oxford University Press

## Semantic extension of visual perception verbs in Cantonese

Michelle Li

*Caritas Institute of Higher Education*

This paper examines the polysemy of Cantonese sight verbs. In Cantonese, the main verbs for expressing visual perception are *gin*<sup>3</sup> ‘see’ and *tai*<sup>2</sup> ‘look’. Semantically, they focus on different perspectives: *gin*<sup>3</sup> emphasizes on the resulting state of perception, whereas *tai*<sup>2</sup> focuses on the process of perception and is usually volitional. According to Viberg’s (1983) cross-linguistic studies, verbs of visual perception often develop meanings covering other sense modalities. This is also true for *gin*<sup>3</sup> which can be used for expressing bodily and emotional feelings as in (1).

- (1) ngo<sup>5</sup> gin<sup>3</sup> wan<sup>4</sup>  
 1sg see dizzy  
 ‘I feel dizzy.’

When used this way, the predicate depicts a state of bodily or psychological sensation and the subject is the experiencer. The extension from SIGHT to FEELING is cross-linguistically uncommon and Cantonese represents a specific case.

Besides their basic meanings, *gin*<sup>3</sup> and *tai*<sup>2</sup> also carry grammatical functions. For example, *gin*<sup>3</sup> is an achievement marker and can be used with other sensory verbs to denote the perception of a stimulus as in *tai*<sup>2</sup> *gin*<sup>3</sup> ‘see’ and *teng*<sup>1</sup> *gin*<sup>3</sup> ‘hear’. Idiomatic uses of *tai*<sup>2</sup> include *tai*<sup>2</sup> *haa*<sup>5</sup> ‘it depends’ and *tai*<sup>2</sup> *lai*<sup>4</sup> is used to make an inference (Matthews & Yip 2011).

As shown in Viberg’s (1983) study, verbs of vision are the most polysemous in meaning. This is supported by Cantonese data where *gin*<sup>3</sup> and *tai*<sup>2</sup> can also be used in the domains of cognition shown in (2) and (3) where *gin*<sup>3</sup> and *tai*<sup>2</sup> means ‘know, understand’ and ‘think’ respectively.

- (2) ngo<sup>5</sup> gin<sup>3</sup> ting<sup>1</sup> jat<sup>6</sup> hai<sup>6</sup> gaa<sup>3</sup> kei<sup>4</sup>, soeng<sup>2</sup> joek<sup>3</sup>  
 1SG see tomorrow COP holiday wantdate  
 nei<sup>5</sup> sik<sup>6</sup> faan<sup>6</sup>  
 2 SG eat rice  
 ‘I know that tomorrow is a holiday, so I want to have dinner with you.’

- (3) gam<sup>1</sup> jat<sup>6</sup> tin<sup>1</sup> hei<sup>3</sup> gam<sup>3</sup> caa<sup>1</sup>, ngo<sup>5</sup> tai<sup>2</sup> keoi<sup>5</sup> ho<sup>1</sup> nang<sup>4</sup>  
 today weather so bad 1 SG look 3 SG maybe  
 m<sup>4</sup> lai<sup>4</sup>  
 NEG come  
 ‘Today’s weather is very bad, I think she may not come.’

Note that the modality of the complement clauses of *gin*<sup>3</sup> and *tai*<sup>2</sup> are different. While the complement clauses of *gin*<sup>3</sup> tends to be realis or factual, the complements of *tai*<sup>2</sup> are inferences made by the speakers based on various sources of evidence.

In this paper, the semantic connections between the various usages of *gin*<sup>3</sup> and *tai*<sup>2</sup> will be examined. It is argued that the PERCEPTION-COGNITION extension of *gin*<sup>3</sup> and *tai*<sup>2</sup> is based on the MIND-AS-BODY metaphor (Sweetser 1990). It is also proposed that *gin*<sup>3</sup> and *tai*<sup>2</sup> can be used evidentially and the types of complements they take are dependent on the speaker's knowledge or judgement of their experiences.

## References

- Matthews, Stephen and Virginia Yip. 2011. *Cantonese: A Comprehensive Grammar*. London: Routledge.
- Sweetser, Eve. 1990. *From Etymology to Pragmatics: Metaphoric and Cultural Aspects of Semantic Structure*. Cambridge: Cambridge University Press.
- Viberg, Åke. 1983. 'The Verbs of Perception: A Typological Study'. *Linguistics* 21, 123–62.

## Expressing the self in Korean

Hye-Kyung Lee  
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This paper aims to investigate how self-referring is achieved in Korean, in particular, via the first person pronouns. Korean is one of the languages that have a complicated honorification system. Hence, the pronouns employed for the purpose of referring to oneself and others are supposed to be chosen in accordance with the expected honorification norms. In Korean, there are at least 138 first-person markers, according to a representative on-line Korean dictionary, *The Standard Dictionary of Korean* published by the National Institute of the Korean Language. Compared to the other attested Southeast and East Asian languages, Korean has a far greater number of first-person markers. To compare, Japanese and Thai are found to have 21 (Martin, 1988: 1076–1077) and 27 (Siewierska, 2004: 228) first-person markers respectively. Dealing with this unusually huge number of first person markers in Korean, this paper analyzes their semantic and pragmatic features and the implication of this inventory on the semantics of self-referring expressions.

The examination of the senses of the first person markers reveals that about more than two thirds of them are employed for self-denigration (Jaszczolt, 2013), while none of them are for self-anointment. Self-denigrating is expressed mainly via two means. The most prominent method is the use of Sino-Korean prefixes, which convey negative and self-humiliating meanings such as being lonely, stupid, distracted, dirty and small. For instance, even a king referred to himself by the word, *kwain*, which literally means an insufficient person. The second method is to dub oneself a living thing, a running cow/horse, body, dust and so on. In addition to the self-denigrating devices, the first-person markers frequently contain the information about the speaker, addressee, the relationship between the interlocutors, the genre of the discourse, the mode of the discourse (i.e., written or spoken), and so on (c.f. Choe, 2011). Conflating this much information in a two or three-syllabled word is possible thanks to the Sino-Korean characters, the combination of which can display various non-compositional senses such as metonymy, metaphor or modification. That is, self-referring in Korean via first-person markers is shaped by the honorification norms (mainly through self-denigration) and awareness of one's status in relation to the addressee and in the context. On the other hand, the first-person markers, albeit exceptionally huge in number, conform to the parameters of functional categories suggested by Heine and Song (2011): desemanticization, decategorialization and erosion, and as a result arguable fall in the category of pronominals.

The analysis of Korean first-person pronouns thus provides evidence against the 'essential indexical thesis', wherein the first-person pronouns are argued to be deictic or indexical, the speaker/writer (e.g., Wechsler, 2010). Instead, self-referring via first-person pronouns in Korean turns out to be mediated by the speaker's awareness of his/her expected public image.

## References

- Choe, J.-W. 2011. Semantic and Pragmatic Characteristics of Korean Honorific Pronouns. *Korean Semantics* 36, 449-480
- Jaszczolt, K. 2013. First-person reference in discourse: Aims and strategies. *Journal of Pragmatics* 48, 57-70. Heine, B. & Song, K.-A. 2011. On the grammaticalisation of personal pronouns. *Journal of Linguistics* 47, 587-630.
- Martin, Samuel E. 1988. *A Reference Grammar of Japanese*. Rutland, VT: Charles E. Tuttle. Siewierska, A. 2004. *Person*. Cambridge University Press, Cambridge.
- Wechsler, S. 2010. What 'you' and 'I' mean to each other: person indexicals, self-ascription, and theory of mind. *Language* 86, 332-365.

## Distinguishing *demi*, *bagi*, *tentang*, and *untuk* in Malay: A corpus-based approach

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Using the *MalayWac* corpus consisting materials collected from the Internet, we compared four closely-related ‘prepositions’ *demi*, *bagi*, *tentang*, and *untuk* in Malay.<sup>1</sup>

In dictionary (*Kamus Dewan*), they often define one another. Yet our results did not completely agree with the dictionary meanings. For instance, the corpus data showed that both *untuk* and *bagi* state the specific purpose or predetermined intention referring to the word that follows but this meaning is missing in the dictionary for *bagi*. Comparatively, *demi* has an additional emphasis on the time or sequence of an action, apart from indicating the purpose or goal, like the previous two. Only *demi* is used to identify a certain authority (e.g., ‘with the name of God’). And *tentang* is used to show the meaning ‘of reference to’ or ‘in respect of’ an issue to be discussed.

Using two-by-two comparisons, we found that all four (not so much for *tentang*) are often followed by something that has a positive semantic prosody. We first extracted the top 300 most frequent shared collocates (under three different grammatical relations) of any two compared words by use of the ‘Sketch-Diff’ function in the Sketch Engine.<sup>2</sup>

**Table 1: Some Examples of Collocates Shared by Two Words<sup>3</sup>**

	<i>bagi</i>	<i>tentang</i>	<i>untuk</i>
<i>demi</i>	<i>keselesaaan, kebahagian</i>	<i>kelangsungan, memastikan</i>	<i>keselesaaan, keselamatan</i>
<i>bagi</i>		<i>menjamin, mengurangkan</i>	<i>mukmin, kelangsungan</i>
<i>tentang</i>			<i>penciptaan, kebangkitan</i>

We calculated the most frequent co-appearing collocates appearing after each of the four keywords. As we can see in Table 1, some words appear in more than one box (e.g., *keselesaaan* ‘comfort’ in the boxes of *demi-bagi* and *demi-untuk*: see examples in the Appendix). When a collocate appears in two sets of comparisons (two boxes), a score of 2 will be accorded (thus, a maximum of 6 will be accorded if a collocate appear in all 6 boxes).

In Table 2, the collocates that are listed on the left (maximum 6 score) are the ones that appear in all boxes, accepted by all four *demi*, *bagi*, *tentang*, and *untuk*; whereas the ones under the score of 1 only appear with two of these four keywords.



**Table 2: Sample of collocates under each score**

6	5	4	3	2	1
<i>keperluan</i>	<i>kemudahan</i>	<i>kematian</i>	<i>kejahatan</i>	<i>kepuasan</i>	<i>kegagalan</i>
<i>kemajuan</i>	<i>kelangsungan</i>	<i>kemampuan</i>	<i>kehormatan</i>	<i>kepastian</i>	<i>kemurahan</i>
<i>kejayaan</i>	<i>kekuatan</i>	<i>kejadian</i>	<i>kegunaan</i>	<i>kelemahan</i>	<i>kemasukan</i>
<i>kehidupan</i>	<i>kekayaan</i>	<i>kebahagiaan</i>	<i>keburukan</i>	<i>kelebihan</i>	<i>kemahiran</i>
<i>kebenaran</i>	<i>kedudukan</i>	<i>menolong</i>	<i>kebesaran</i>	<i>kelancaran</i>	<i>kekerasan</i>
<i>kebaikan</i>	<i>menghormati</i>	<i>mengambil</i>	<i>kebangkitan</i>	<i>kekalahan</i>	<i>menutupi</i>
<i>keamanan</i>	<i>menghadapi</i>	<i>menyebarkan</i>	<i>menolak</i>	<i>menghancurkan</i>	<i>menurunkan</i>
<i>menjamin</i>	<i>menjelaskan</i>	<i>memerangi</i>	<i>menggantikan</i>	<i>permasalahan</i>	<i>tuntutan</i>

To summarize, *demi*, *bagi*, *tentang*, and *untuk* have a tendency to be followed by words with positive semantic prosody (e.g., *demi/bagi/tentang/untuk kemajuan* ‘for the sake of/concerning the success’). Words with less favorable semantic prosody (*kematian* ‘death’ (4); *kejahatan* ‘evil’ (3); *menghancurkan* ‘to crush’ (2) are more often seen when we move to the right of the table, indicating their less-shared among the four.

Our study is corpus-based, with the aim to prove a linguistic phenomenon that is not often noticed when we look at individual sentences, i.e., to detect semantic prosody following Malay function words.

### Notes

- <sup>1</sup> We are aware that the Internet materials could comprise both Malaysian and Indonesian Malay.
- <sup>2</sup> One needs to note that although the MalayWac in the Sketch Engine shows the salient collocates, many a times the grammatical roles are often mis-tagged. Therefore, our collection of collocates disregarded the grammatical roles by conflating the collocates from three different grammatical roles, and thus maximizing the possibility of including strong collocates of each keyword.
- <sup>3</sup> Another row for *untuk* is not needed as all its comparison can be found in the last column.

### Appendix

- (i) *...menghilangkan bau peluh **demi** keselesaan di tempat awam .*  
 “to diminish the smell of sweat **for** the comfort (of everybody) in the public area.”
- (ii) *Longgarkan pakaian yang ketat bagi keselesaan pernafasan.*  
 “Losen any tight clothing **for** the ease of breathing (or for breathing smoothly).”
- (iii) *untuk memastikan jalan-jalan kampung yang dibina ini bermutu dan tahan lama **untuk** keselesaan penduduk luar Bandar .*  
 “to ensure that the village roads that were built are of high quality and can sustain a long time **for** the comfort of rural residents.”

## **Justifying the left-branching structure of the Chinese classifier phrase: Evidence from speech perception and production**

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The Chinese classifier phrase involves a numeral (Num), a classifier or measure word (C/M), and a noun (N), e.g., san1 ben3/xiang1 shu1 [5 C/M-box book]. There are three views regarding its constituency: some argue it is left-branching, i.e., [[5 C/M-box] book], and some insist it is right-branching, i.e., [5 [C/M-box book]], while a small minority contends that both structures are required (e.g., Her 2012b, Zhang 2013, Li 2014). As syntactic structure is crucial to speech perception and production, this study conducted two experiments, one on perception and the other on production, to resolve this stalemate.

The experiment on speech perception used a classical but poorly exploited method, where participants were asked to locate the click in sentential material. The gestalt theory predicts that the stronger a boundary, the greater its effect on perceptually attracting the click; for example, clicks in the middle of ‘Anna’ were attracted towards the major syntactic boundary in ‘In her hope of marrying, Anna was surely impractical’ and ‘Your hope of marrying Anna was surely impractical’ (Garrett 1965, Fodor & Bever 1965, Garrett et al 1966).

In our experiment, we selected stimuli from the Mandarin Hearing in Noise Test (MHINT), where the volume and reception threshold for sentences were properly controlled. There were three conditions dependent on the syntactic types of a threeconstituent phrase in each sentence. The first condition was the [XYZ] phrases of [Num C/M N]. The other two conditions were control conditions: one contained leftbranching [XY+Z] phrases, while the other involved right-branching [X+YZ] phrases. The clicks appeared exactly in the middle of Y in all conditions. Results showed that participants located the click after Y significantly more in the C/M and [XY+Z] conditions compared to the [X+YZ] condition. This finding supported the leftbranching constituency of C/M.

In speech production, Chinese tone 3 (T3) sandhi requires a T3 to change into T2 when followed by another T3 within a disyllabic domain (e.g., Chen 2000; Duanmu 2000, 2005; Lin 2007). Accordingly, we inspected the behavior of the T3 Num followed by a T3 C/M in [Num C/M N] to gain insight into the constituency of C/M. Consider wu3 ba3 san3 [5 C umbrella], a left branching account predicts that wu3 should change to wu2

because *wu3* and *ba3* merge first. A right branching account, however, predicts that *ba3* should change into *ba2* because *ba3* and *san3* form a disyllabic domain first. Again, there were three conditions: [XYZ] condition of [Num C/M N] phrases, [XY+Z] condition of left-branching phrases, and [X+YZ] condition of right-branching phrases. All trials were trisyllabic and all T3. Results showed that participants changed T3 X into T2 for C/M phrases and XY+Z phrases, but not for X+YZ phrases. This finding again offered strong support for the left-branching constituency of the classifier phrase.

To conclude, we supported the left-branching constituency of C/M with evidence from speech perception and production. These findings are also consistent with the mathematical theory of C/M, where Num and C/M form a [multiplier × multiplicand] unit (Her 2012a,b).

## References

- Bond, Zinny S. 1972. Phonological units in sentence perception. *Phonetica* 25:129-139.
- Chen, Matthew. 2000. *Tone Sandhi: Patterns across Chinese Dialects*. Cambridge Studies in Linguistics, No. 92. Cambridge: Cambridge University Press.
- Cohen, Laurent and Mehler, Jacques. 1996. Click monitoring revisited: An on-line study of sentence comprehension. *Memory and Cognition* 24: 94-102.
- Duanmu, San. 2000. *The Phonology of Standard Chinese*. Oxford: Oxford University Press.
- Duanmu, San, 2005. The tone-syntax interface in Chinese: some recent controversies. *Proceedings of the Symposium 'Cross-Linguistic Studies of Tonal Phenomena, Historical Development, Tone-Syntax Interface, and Descriptive Studies, December 14-16, 2004*, ed. Shigeki Kaji. Research Institute for Languages and Cultures of Asia and Africa (ILCAA), Tokyo University of Foreign Studies, pp. 221- 254.
- Garrett, Merrill F. 1965. *Syntactic structures and judgments of auditory events: a study of the perception of extraneous noise in sentences*. PhD dissertation, University of Illinois at Urbana-Champaign.
- Fodor, Jerry A., and Thomas G. Bever. 1965. The psychological reality of linguistic segments. *Journal of Verbal Learning and Verbal Behavior* 4.5:414-420.
- Garrett, Merrill, Thomas Bever and Jerry A. Fodor. 1966. The active use of grammar in speech perception. *Perception and Psychophysics* 1: 30–32.
- Her, One-Soon. 2012a. Distinguishing classifiers and measure words: A mathematical perspective and implications. *Lingua* 122.14: 1668-1691.

- Her, One-Soon. 2012b. Structure of classifiers and measure words: A lexical functional Account. *Language and Linguistics* 13.6: 1211-1251.
- Hsiao, Yuchau. 1991. *Syntax, Rhythm and Tone: A Triangular Relationship*. Taipei: Crane Publishing.
- Larsen, Steen F. 1971. The psychological reality of linguistic segments reconsidered. *Scandinavian Journal of Psychology* 12.1:113-118.
- Li, Yen-Hui Audrey. 2014. Structure of noun phrases – left or right? *Taiwan Journal of Linguistics* 12.2: 1-32.
- Lin, Yen-Hwei. 2007. *The Sounds of Chinese*. Cambridge: Cambridge University Press.
- Zhang, Niina Ning. 2013. *Classifier Structures in Mandarin Chinese*. Berlin: Mouton de Gruyter.

**L2 proficiency and sentence context affect interlingual lexical activation:  
Evidence from eye movements of Japanese-Chinese bilinguals**

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For decades, psycholinguists have disputes on the organization of the language systems of bilinguals and how lexical representations are retrieved. The selective access hypothesis predicts that two language systems are independent and bilinguals activate only one lexicon at a time while reading or speaking. Alternatively, non-selective access hypothesis predicts that two languages share an integrated conception system and the representations from both languages are accessed simultaneously during comprehension. Many studies have demonstrated that bilingual lexical access is non-selective when processing interlingual homographs or cognates. However, most of them used the task which words are presented in isolation, instead of reading sentences in a natural situation when considering the role of context. Besides, most of results are based on alphabetic writing systems such as English-French or Dutch; only few of them examined the non-alphabetic systems. Since bilingual experience is dynamic and poses a challenge for researchers to develop instruments that capture its relevant dimensions, we also examined the result of language proficiency from class level and eye movement indexes to confirm which one is more accurate. Thus, the present study aimed to examine whether Japanese-Chinese bilingual lexical access is non-selective and whether the context and L2 proficiency modulate the word recognition processing. Experiment manipulated contextual constraint (high or low constraint) and target word types (cognates, interlingual homographs, or Chinese words), using eye movement recordings to investigate the effects of contextual constraint for bilingual lexical access when reading Chinese sentences by Japanese-Chinese bilinguals, L1 and L2 proficiency were measured.

The results support the non-selective hypothesis. Both sentence context and L2 proficiency could affect the bilingual lexical access. According to class level analysis, L2 proficiency has significant interaction with other effects in the late processing stage. The eye movement measures that reflect early processing of target words showed significant interlingual homograph interference and cognate facilitation in the higher proficient bilinguals. However, only cognate facilitation was observed for high-constraint sentences in the lower proficient bilinguals and no effect was founded in the low-constraint sentences. On the other hand, the eye movement index analysis showed L2 proficiency has significant interaction with other effects in the early processing stage, demonstrating the L2 reading proficiency can be measured by eye movement index. In summary, both

sentence context and L2 proficiency can modulate bilingual lexical access. The early process is non-selective and bilinguals with more L2 proficiency could make use of sentence context in the early process than less L2 proficiency when reading L2 sentences.

## **Multimodal perception: How our sensorimotor experience influences the perception of words?**

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Human perception is multimodal. Information about the objects and phenomena of reality (concepts) has modal characteristics. These characteristics come from the experience of human interaction with objects through the senses (grounded cognition).

These multisensorial characteristics are called multimodal simulations (in terms of the perceptual symbol theory). They are stored in the form of perceptual symbols. Their perception activates the whole multimodal construct. Actualization (in context) of one of the modalities in the previous trial speeds up the processing of stimulus of appropriate modality in the main trial.

The peculiarity of language is that in its natural form it can be perceived simultaneously via two perceptual channels: the auditory channel (as a sequence of sounds) and the visual one (as a sequence of graphemes). Some words can contain multimodal information (yellow banana, sweet banana, etc.), while other words contain unimodal information (description of colors - red, yellow, etc.).

Perception of a word activates an entire set of modal properties of perceived object.

Modal semantics of the word affects the perception of other words within the same perceptual channel. So, we hypothesize that,

1. When perceiving unimodal words, they should be processed quicker in the modality that is represented in their semantics (e.g., when color is indicated, the stimulus will be better perceived through the visual modality, while names indicating sounds will not).
2. The influence of modal semantics will manifest at the level of cross-modal interactions.

As the main method we use the 2 by 2 RT-experiment with two dependent variables: (1) perceptual channels (physical modality) – visual (on screen) vs auditory (in headphones); and (2) semantics of the stimuli – audial (eg., Loud) vs visual (eg., Red).

The procedure involves simultaneous presentation of pairs of stimuli: one on screen, the other in headphones. Pairs of stimuli were created so as to meet the following conditions:

1. In each perceptual channel there were words of auditory and visual semantics in equal amounts.
2. The stimuli were formed so that in the audio-visual pairs there would be overlapping modal semantic information (type of pair: loud-voiced, red-yellow) and conflicting modal semantic information (type of pair: loud-red, yellow-clear).

Analysis of the data revealed some interesting effects.

The match effect.

The effect of the compliance between channel and semantics.

Words with visual semantics (e.g. red) are processed faster than words with audial semantics (e.g. loud) if the perception takes place through the visual channel ( $F(2, 59) = 39,678, p = 0,0005$ ) Cross-modal correlation.

The appearance of a word with visual semantics in the audio channel (e.g., red) catalyzes the assimilation of information received through visual channels of perception ( $F(2, 59) = 39,678, p < 0,001$ ).



## No difference in temporal orientation among Chinese, Japanese and English speakers

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It has been argued that speakers of different languages assume different orientations of time when they process temporal information and that this is in part due to the different spatial metaphors used in different languages. For example, English and Chinese both use horizontal spatial metaphors to express time (e.g., before/after next Tuesday), but vertical spatial metaphors are also commonly used in Chinese (e.g., “up month” means “last month”; “down week” means “next week”). Accordingly, Chinese speakers display a stronger tendency to process temporal information vertically than English speakers. In the present study, we compared speakers of Chinese (from Taiwan), Japanese (from Japan), and English (from USA) with respect to their performances on a primed temporal judgment task. Linguistically, all three languages employ horizontal spatial metaphors to express time, but only Chinese uses vertical spatial metaphors additionally. Culturally, direction of reading is exclusively horizontal from left to right in English, but the Chinese and the Japanese participants reported equal experience reading horizontally and vertically. In the task, the prime consisted of reading horizontally- (left-to-right) or vertically-arranged (top-to-bottom) texts. The temporal judgment task that followed the prime involved determining the temporal order of the two phases of an action event (e.g., a man about to enter the house vs. a man entering the house shown as two pictures; participants determine if the second picture occurs earlier or later than the first). The response buttons (#9 and #3 on a numeric keypad in a front-back orientation) were arranged horizontally (placed on the desk) or vertically (held in the left hand, perpendicular to the desk surface). In the canonical condition, the front or top button represented “earlier” whereas the back or bottom button represented “later”. In the non-canonical condition, the mappings were in reverse. Response times in the canonical condition were overall shorter than those in the non-canonical condition, known as the STARC (Spatial-Temporal Association of Response Codes) effect. Vertical responses led to a greater STARC effect than horizontal responses (a vertical bias), but this bias did not vary among linguistic groups, suggesting that neither the linguistic nor the cultural factor was responsible. The vertical bias varied between primes (there was a vertical bias under the horizontal prime but no bias under the vertical prime) and in the same way for the Chinese and the Japanese groups. The lack of a vertical bias under the vertical prime is explained by the spatial compatibility of the vertical prime and the horizontal response (top-bottom = front-back on a 2D plane). Our conclusion is that the cross-linguistic differences in temporal orientation observed in past studies are subject to subtle

variations in the design of the task and that the spatial metaphor account is likely a misconstrued one.

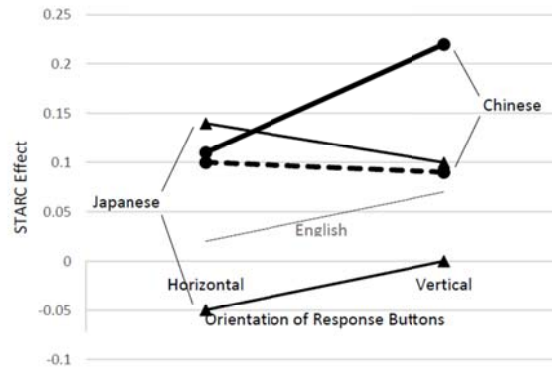


Figure 1. STARARC effect in a temporal judgment task. Solid lines: Horizontal prime; Dashed lines: Vertical prime.

## References

- Bergen, B. K., & Chan Lau, T. T. (2012). Writing direction affects how people map space onto time. *Frontiers in Psychology*, Volume 3, Article 109.
- Boroditsky, L., Fuhrman, O., & McCormick, K. (2011). Do English and Mandarin speakers think about time differently? *Cognition*, 118, 123-129.
- Chen, J.-Y., & O'Seaghda, P. G. (2013). Do Mandarin and English speakers think about time differently? Review of existing evidence and some new data. *Journal of Chinese Linguistics*, 41(2), 338-358.
- Fuhrman, O., & Boroditsky, L. (2010). Cross-cultural differences in mental representations of time: Evidence from an implicit non-linguistic task. *Cognitive Science*, 34, 1430-1451.
- Fuhrman, O., McCormick, K., Chen, E., Jiang, H., Shu, D., Mao, S., & Boroditsky, L. (2011). How linguistic and cultural forces shape conceptions of time: English and Mandarin time in 3D. *Cognitive Science*, 35, 1305-1328.
- Sanvido, G. B., de Rose, J. C., & Chen, J.-Y. (2011 November). Chinese speakers do not think about time differently than Portuguese speakers. Poster presented at the 52nd Annual Meeting of the Psychonomic Society, Seattle, USA.
- Zebian, S. (2005). Linkages between number concepts, spatial thinking, and directionality of writing: The SNARC effect and the REVERSE SNARC effect in English and Arabic monoliterates, biliterates, and illiterate Arabic speakers. *Journal of Cognition and Culture*, 5, 165-190.

## A case study of pitch accent shift in the Ryukyuan languages

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Language changes or linguistic variations are seldom caused by a single factor. One common external factor for sound changes is geographic separation (Labov 1994: 9). When geographic separation occurs, sound changes also take place. However, geographic separation does not necessarily lead to sound change. Sound changes also possibly result from internal systematic chain shifting (Labov 1994). The two factors are seldom discussed together as a combined factor. In this paper, I demonstrate that the geographic separation and chain shifting could be associated. When geographic separation occurs in a sequential manner ( $A \rightarrow B \rightarrow C$ ), sound changes take place concurrently in a derivational manner ( $X \rightarrow Y \rightarrow Z$ ) by changing one phonological feature step by step. To illustrate this, I focus on changes of pitch accent in the Ryukyus spoken in five regions geographically distributed from north to south: Amami, Okinawa, Miyako, Yaeyama and Yonaguni.

To explore the pitch accent in the five regions, the data are based on Shimabukuro's (2007) reconstruction of pitch accent for the five regions. In his work, pitch accent is shown in two methods: phonetic elements, H (high) and L (low), and phonological notations, including locus and register. In this study, I use the phonological notations for the discussion. Besides, the data are limited to monosyllabic words and disyllabic words, as shown in Tables 1 and 2 below.

The results suggest that the five regions show four types of pitch accent: Amami, Okinawa, Miyako-Yaeyama and Yonaguni. The changes in the four types are in chain shifting and correspond to the migration directionality from Amami to Okinawa and then to Miyako- Yaeyama and finally to Yonaguni. When migrants move southward, the locus, at the same time, shifts rightward to the next syllable. In other words, prototonic becomes oxytonic and finally reduces to atonic. When pitch accent becomes atonic, other phonological processes that develop locally take place. In Okinawa, long vowels develop independently, and the long vowels attract accent, especially in disyllabic words, even if the stress has shifted to the next position. In Miyako-Yaeyama, different types of pitch accent merge into one single type. To keep the prosodic system distinctive, other new mechanism like register emerges, and then register spreads from Miyako to Yaeyama and then to Yonaguni. In Yonaguni, all types of pitch accent are simplified and become atonic. However, falling tone emerges in word final position.

Table 1: Pitch accent in the Ryukyuan languages (monosyllabic words)

	Proto-Amami	Proto-Okinawa	Proto-Miyako	Proto-Yaeyama	Yonaguni
(a)	*oo	*o <sub>1</sub> o	* oo <sub>1</sub>	* <sup>-</sup> oo <sub>1</sub>	<sup>-</sup> oo
(b)	*oo	*o <sub>1</sub> o	* <sup>-</sup> oo <sub>1</sub>	* <sup>-</sup> oo <sub>1</sub>	<sup>-</sup> oo
(c)	*oo <sub>1</sub>	*oo	* oo <sub>1</sub>	* oo <sub>1</sub>	oo

Table 2: Pitch accent in the Ryukyuan languages (disyllabic words)

	Proto-Amami	Proto-Okinawa	Proto-Miyako	Proto-Yaeyama	Yonaguni
(a)	*OO	*O $\bar{1}$ O	* $\bar{1}$ OO $\bar{1}$	* $\bar{1}$ OO $\bar{1}$	$\bar{1}$ OO
(b)	*OO $\bar{1}$	*OO	* OO $\bar{1}$	* $\bar{1}$ OO $\bar{1}$	$\bar{1}$ OO
(c)	*O $\bar{1}$ O	*oo $\bar{1}$ O	*OO	*OO	OO\

## References

- Labov, William. 1994. *Principles of Linguistic Change, Vol.1: Internal factors*. Oxford: Blackwell.
- Shimabukuro, Moriyō. 2007. *The Accentual History of the Japanese and Ryukyuan Languages: a reconstruction*. Kent: Global Oriental.

## **The distribution of ideophones in Tang poems: A variationist perspective**

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Ideophones, defined by Dingemanse (2011; 2012) as phonologically and morpho-logically marked words that depict some form of sensory image, occur very frequently in Tang dynasty (618-907 AD) Middle Chinese poems. There is some work on the oldest variants as well as modern variants of Sinitic languages (cf. Sun 1999; Mok 2001; Bodomo 2006; De Sousa 2008; De Sousa 2011; Meng 2012; Wu 2014), but so far, there is no published encompassing study of ideophones in this stage in the historical development of Sinitic languages.

Given that the nature of the construction of ideophone is fixed and fossilized, they are good candidates for observing language diffusion. This paper aims to investigate the relation between the use of ideophones and the geographical characteristics of landscape, in a further attempt to pursue their possible diffusion paths across dynasties. Our main data of ideophones come from the *300 Tang poems* (*Tang shi san bai shou* 唐詩三百首). From a variationist perspective it can be argued that the places from which the authors of these poems originated heavily influenced their use of language, especially in the domain of ideophones, which depict a sensory image and thus show a high iconicity link with the perspective they use to view the world. In this presentation, we present a case study of three ideophones that grossly share the same meaning and have a similar structure: *mangmang* 茫茫 ‘vast; blurred’ vs. *mangmang* 芒芒 vs. *cangmang* 蒼茫 ‘expansive looking’. The results show an interesting semantic correspondence between the usage of the studied ideophones in their usage and the geographical landscape. Furthermore, there is a tendency of diffusion from the North China to the Central China. There is also. This paper also applies geographical software like Google maps to visualize our findings (see Fig.1). This will increase our understanding of how ideophones in Middle Chinese work and how they were used and influenced contemporary language.

### **References**

- Bodomo, Adams. 2006. The structure of ideophones in African and Asian languages: the case of Dagaare and Cantonese. 203–213. Somerville, MA: Cascadilla Proceedings Project.
- Dingemanse, Mark. 2011. The meaning and use of ideophones in Siwu. Nijmegen: Radboud University Nijmegen dissertation.

- Dingemanse, Mark. 2012. Advances in the cross-linguistic study of ideophones. *Language and Linguistics Compass* 6(10). 654–672.
- Meng, Chenxi. 2012. A description of ideophonic words in Mandarin Chinese. Leiden: Leiden University Research Master in Linguistics.
- Mok, Waiching Enid. 2001. Chinese sound symbolism: A phonological perspective. Hawai'i: University of Hawai'i PhD dissertation.
- Sousa, Hilário De. 2008. Ideophones in Cantonese - the role of tones. Powerpoint presentation. Max Planck Insitute for Psycholinguistics.
- Sousa, Hilário De. 2011. Ideophonic compounds in East and Southeast Asia. Powerpoint presentation. Hong Kong.
- Sun, Jingtao. 1999. Reduplication in Old Chinese. Vancouver: University of British Columbia PhD dissertation.
- Tagliamonte, Sali A. 2012. *Variationist Sociolinguistics: Change, Observation, Interpretation*. West Sussex: Wiley-Blackwell.
- Wu, Mengqi. 2014. The structure of ideophones in Southern Sinitic. Hong Kong: University of Hong Kong Master thesis.

## **Textual patterns of modern western paintings: A cognitive multimodal exploration**

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This study investigates from the discipline of linguistics the textual patterns of modern western paintings. As noted by Donald (2006), modern paintings are typically more theoretical than mimetic, hence rich in writing-like expressive freedom. However, artistic visual texts were only briefly discussed in Kress and van Leeuwen's (1996) 'visual grammar' extended from Halliday (1994), with most of the discussion centered on mass media materials, or those commercial and applied in essence. To fill the gap, we examined the compositions of modern paintings in a more systematic way. Our data comprise of 90 modern western paintings ranging from the figurative to the abstract, created by 3 representative artists from 1920 to 1980. The current study differed from the semiotic model of Kress and van Leeuwen (1996), in that both the linguistic cues of painting titles and the pictorial content of painting-plates are included in our multimodal analysis.

According to Kress and van Leeuwen (1996), the compositions of painting layouts would generally follow a pattern of information structure: The given information resides mostly at the left and the new at the right, possibly in alignment with the left-to-right writing directionality of Western languages. In our analysis, we have found that most figurative paintings indeed display an obvious textual pattern dictated by information values, which is determined by the semantics of both linguistic and visual cues. Nonetheless, such informational pattern declines sharply in semi-figurative paintings, and is absent in abstract paintings, which feature no concrete semanticity. Instead, we have found the textual directionality of semi-abstract and abstract paintings greatly influenced by the existence of diagrammatic iconicity (Hiraga, 2005), which transcends the discussion of how visual-perceptual saliency could affect pictorial compositions in Kress and van Leeuwen (1996).

Our results brought out what is unseen in the previous research: Compositional pattern like information structure can differentiate artistic visuals from other types of visual texts. Via an empirical examination of the cognitive mechanism involved in the structuring of paintings, we are confirmed that a multimodal approach from the linguistic point of view can bring forth a better interdisciplinary understanding to the realm of fine art.

## References

- Donald, M. (2006). Art and cognitive evolution. *The artful mind: cognitive science and the riddle of human creativity*. Oxford University Press.,
- Halliday, M.A.K. (1994). *An Introduction to Functional Grammar* 2nd ed. London: Edward Arnold.
- Hiraga, M. K. (2005). *Metaphor and Iconicity*. New York: Palgrave Macmillan.
- Kress, G. R., & Van Leeuwen, T. (1996). *Reading images: The grammar of visual design*. Psychology Press.



## Rhythmic synchrony in conversational speech

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Human language provides an ideal environment for studying the phenomenon of rhythmic and imitative behaviors in communication (Campbell & Scherer, 2010; Lelong & Bailly, 2011; Gill, 2012). Spontaneous conversation is multifunctional: the most evident goal of transmitting information simultaneously carries a social goal of building rapport and the sharing of attitudes and emotions towards the information transmitted. In the conversational process, speakers provide propositional and emotional and information through prosody, gesturing, and feedback, and engage in interactional probing to build a shared knowledge state and guide topic in a mutually desired direction. Prosody plays a key role in this process, as it provides a powerful and informative resource to communicate multiple levels of coherence and meaning by providing a direct and immediate link to fundamental expressive states.

The current study presents our results on prosodic synchrony in spoken dialogues, drawing from extended conversational data in Mandarin Chinese. Because of the multidimensional goals at work in language, synchrony is approached as both building social interactional harmony, and also reflecting informational, organizational and expressive processes in conversations. Our data consist of two one-hour long spontaneous conversations. The conversations were segmented to the phrase level, and measures of fundamental frequency ( $f_0$ ) and amplitude were automatically computed, and normalized to each speaker's pitch mean and range.

Our results show that both synchrony and dissynchrony in prosody occur at both local inter-phrase level pitch level changes, as well as over dialogue sections extending globally across topics and subtopics. The pattern found for our Mandarin conversational corpora is that prosodic convergence is arrived at gradually, with an initial probing stage where topic is negotiated, followed by mixed convergence and divergence as options are explored or overturned from a one-sided viewpoint, until speakers arrive at a mutually fulfilling topic theme, where convergence is frequent. Near conversation end, participants converge in a descending pitch pattern in a shared recognition of the coming conclusion.

By comparison to talks between friends, conversations between strangers may be more susceptible to lags in convergence, as speakers work to construct a common conversational outlook. The current results indicate that prosodic lags go in both directions, as speaker roles change and new topics are brought up. At the local level, prosodic synchrony at phrase-to-phrase pitch movement is common: convergence is associated with agreement or encouragement of topic, divergence with disagreement,

doubt, or non-interest. Speaker role was found to be important in the incidence and location of feedback tokens with respect to the prosodic patterns. Feedback of high interest or surprise such as “oh”, and encouraging markers such as “um” or “umhum” occur more frequently in areas of high pitch and convergence, and less frequently in divergent prosodic sections.

Our analysis suggests that rhythmic synchrony phenomena occur as a mirror of topically and emotionally synchronized or dissynchronized participant states and that convergence and divergence are not only strategies to encourage rapport, but also act as organizational indicators providing key information on the degree of understanding, on emotional synchrony, and on the perceived status of a mutually fulfilling topic flow.

## References

- Campbell, Nick, and Stefan Scherer. 2010. Comparing measures of synchrony and alignment in dialogue speech timing with respect to turn-taking activity. *Proceedings of Interspeech 2010*.
- Condon, W. S., Sander, L. W. 1974. Neonate movement is synchronized with adult speech, interactional participation and language acquisition. *Science*, Vol.183, 99–101.
- Gill, Satinder P. 2012. Rhythmic synchrony and mediated interaction: towards a framework of rhythm in embodied interaction. *AI & Soc.* 27: 111-127.
- Lelong, Amélie & Gérard Bailly. 2011. Study of the phenomenon of phonetic convergence thanks to speech dominoes. In A. Esposito, A. Vinciarelli, K. Vicsi, C. Pelachaud and A. Nijholt (eds.) *Analysis of verbal and nonverbal communication and enactment: the processing issue*. 280-293.
- Sadler, P., Ethier, N., Gunn, G.R, Duong, D, and Woody, E. 2009. Are we on the same wavelength? Interpersonal complementarity as shared cyclical patterns during interactions. *Journal of Personality & Social Psychology*, 97(6):1005–20.

## Metaphor and internet-based mental healthcare in Hong Kong

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Internet-based mental healthcare innovations are cost effective alternatives or precursors to face-to-face therapy, notably in Chinese societies where mental illness still tends to be stigmatized. These innovations also provide new contexts for linguistic analyses of therapy as a ‘talking cure’. A cognitive linguistic approach seems particularly apt for the concern it shares with therapists about how language reflects our inner mental worlds. We report a case study of metaphor use by help-seekers and therapists on an online forum of a major Hong Kong-based psychotherapy practitioner. 324 Cantonese metaphorical expressions were identified from a random sample of 45 one-time exchanges between help-seekers and therapists, and coded under the variables TOPIC, SOURCE, NOVELTY, WRITER, and FUNCTION. We examined quantitative inter-variable associations and the attendant qualitative details to investigate the representational, functional, and interactional aspects of metaphors. Representational aspects refer to the substantive contents of metaphors. TOPICSOURCE cross tabulation reveals significant tendencies to describe emotions in terms of traversing vertical space, and life in terms of movement along a source-path-goal trajectory (Johnson, 1987). A marginally significant relationship between NOVELTY and SOURCE ( $p=0.08$ ) further reveals, among other details, that container metaphors tended to be creatively instantiated while source-path-goal metaphors tended to be based on conventionalized expressions. Next, functional aspects refer to how metaphors perform therapeutically relevant functions. We found a significant relationship between WRITER and FUNCTION ( $p<0.01$ ), help-seekers being more likely to use metaphors to describe, summarize, enquire, and state needs, while therapists more likely to explain, make suggestions, and convey phatic wishes. Lastly, interactional aspects refer to how therapists as respondents to help-seekers’ posts either overlook the latter’s metaphors or elaborate them in various therapeutically relevant ways. We discuss findings from all three strands in the context of Hong Kong society, language, and culture, as well as how metaphor use in internet-based healthcare compares with traditional face-to-face therapy (Tay, 2013). We also offer some tentative implications of (cognitive) linguistic analyses for the enhancement of these healthcare innovations.

### References

- Johnson, M. (1987). *The Body in the Mind: The Bodily Basis of Meaning, Imagination and Reason*. Chicago: University of Chicago Press.
- Tay, D. (2013). *Metaphor in Psychotherapy. A Descriptive and Prescriptive Analysis*. Amsterdam and Philadelphia: John Benjamins.

## On the absence of deictic motion verbs ‘come’ and ‘go’ in Tsou

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Deictic motion, generally considered a semantic universal, is expected to be represented with language-specific means like verbs or dependent markers in all languages of the world, and these are usually reckoned to exhibit a universal deictic opposition, signaling a movement either toward the speaker or away from the speaker (cf. Talmy 2000:56). For languages with deictic motion verbs, such as ‘come’ and ‘go’ in English, they are generally treated as basic motion verbs. In the sizable literature on deictic motion verbs in various languages (Fillmore 1997; Nakazawa 1990, 2005; Oshima 2012, among many other), the questions that researchers are concerned with have centered primarily on showing in some detail the appropriate conditions of occurrence for these deictic motion verbs in SAP situations, and to identify the semantic range which the verbs in each language cover. Very few studies have, to my knowledge, questioned the universal existence of deictic motion markers, however, with the single exception of Wilkins and Hill (1995:250), who suggest that GO might be a strict lexical universal with a generic non-deictic translational motion sense, and that non-deictic GO expressions often take on a deictic interpretation through pragmatic attribution, and also that there might not be deictic motion ‘come’ verb in such languages.

The purpose of this study is to demonstrate that, based on narrative corpus data, Tsou can be shown to be a language with non-deictic GO verb, since, on the one hand, expressions equivalent to the deictic ‘come’ verb are never found in the Tsou corpus data, or in the Tsou dictionary compiled by Chang et al. (2013); and in the judgment of native speakers, they could not think of any word that matches the meaning of deictic ‘come’ (Huang 2015). On the other hand, Tsou ‘go’ verbs, which were generally treated as deictic motion verb, in the Tsou corpus occur at a surprisingly low frequency. A count of the occurrences of ‘come’ and ‘go’ functioning as verbs in the Pear narrative texts of English, Chinese and Tsou shows that only 3 tokens of Tsou ‘go’ verbs are found in the entire Tsou Pear narratives, accounting for just 5% of all the clauses in the texts, far fewer than the 45% found in English texts and 56% in Chinese texts with either deictic ‘come’ or ‘go’ verbs. These results suggest one of two possibilities. If the ‘go’ verbs in Tsou indeed encode deictic motion, then it is clearly the case that narrators in the Tsou narrative texts rarely found it necessarily to represent deictic information in SAP situations. On the other hand, if the ‘go’ verb encode non-deictic motion, then deictic information must be represented through other lexical or grammatical strategies. Our analyses support the latter possibility. Since corpus evidence in Tsou indicates that deictic motion in SAP situations or in narratives is often jointly signaled by verbs, demonstratives, pronominals

on the auxiliary and/or case markers. And it is through these grammatical strategies that any noun phrases in Tsou clauses are grammatically required to mark the relative spatial distance of an entity in relation to the speaker, rendering the need for the use of specialized deictic motion verbs or markers to be linguistically superfluous.

## References

- Chafe, Wallace L. (ed.) 1980. *The Pear Stories: Cognitive, culture and linguistic aspects of narrative production*. New Jersey: ABLEX Publishing Corporation.
- Chang, Henry Yung-li, et al. 2013. Tsou E-dictionary. Taipei: The Council of Indigenous peoples (Taiwan). <http://e-dictionary.apc.gov.tw/tsu/Search.htm>
- Fillmore, Charles. 1997. *Lectures on Deixis*. Stanford: CSLI.
- Huang, Huei-ju. 2010. *The syntax and pragmatics of clausal constituents in Tsou discourse*. Doctoral Dissertation. National Taiwan University.
- Huang, Huei-ju. 2015. Different ways of using deictic verbs come and go: A comparison of Tsou, Chinese and English pear narratives. Paper presented at 13th International Conference on Austronesian Linguistics (13-ICAL). Taipei: Academia Sinica. July 18-23.
- Nakazawa, Tsuneko. 1990. Pragmatic account of the distribution of come and go in English, Japanese and Korean. In H. Hoji, ed., *Japanese/Korean Linguistics*, vol. 1, 97-110. Stanford: CSLI.
- Nakazawa, Tsuneko. 2005. On come and go in English, Japanese, and Chinese: Why do they come while others go? In *Language, Information, Text*, vol. 12, 43-62. Tokyo: University of Tokyo.
- Oshima, David Y. (2012) "GO and COME revisited: What serves as a reference point?", in *Proceedings of Berkeley Linguistics Society (BLS)*, vol.32. pp.287-298.
- Wilkins, David P. and Deborah Hill. 1995. When "go" means "come": Questioning the basicness of basic motion verbs. *Cognitive Linguistics* 6:2/3, 209-259.

**Misunderstandings as negative evidence:  
Considerations on multimodal aspects in discourse**

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This paper demonstrates that an analysis of misunderstandings reveals multimodal factors including paralinguistic and non-linguistic information that we employ to understand utterances in actual interaction. It has been argued that there are multimodal signs such as intonation, pointing, eye gaze, head nod and shoulder shrug (e.g. McNeill 1992; Chafe 1994; Clark 1996; Langacker 2001). However, previous studies have dealt only with the actions that we can intuitively find significant, based on positive evidence in discourse where the participants communicate with each other successfully. In common discourse we make use of many composite signals in order to interpret an utterance, but it is difficult to identify what kind of signal affects the hearer's interpretation because of a large number of potential factors. On the other hand, in discourse where misunderstanding occurs, what is involved in the hearer's interpretation can be identified judging from the process of its repair. Therefore misunderstanding is useful as negative evidence in studies of communication. The example (1) clearly illustrates that a laugh can cause a misunderstanding and have a certain meaning.

- (1) ((A and B are using a free international call service, where the length is limited. They are talking about how it signals the end of the call.))
- 01 A: Do we still have time?  
 02 B: Yes, about [15 min  
 03 A: [Will it “beep”?  
 04 B: You know...  
 05 It'll say “it is over.” ((With a laugh))  
 06 A: Is it already saying “it is over”?  
 07 B: Perhaps... Oh no, when it says so  
 08 A: Yeah  
 09 B: We should hang up.  
 10 A: Uh-huh.

(CALLHOME Japanese Speech: 0862, translated by author)

In her second turn (line 04 and 05), B was laughing in the middle of the utterance because she thought the signal at the end of the call was funny. Although the phrase ‘it is over’ included in B's utterance was meant to be just an answer to A's question, A mistook it as reporting that their call was actually approaching the limit. This misunderstanding would not have occurred if A simply could not hear B's utterance, judging

from the fact that A already found out that they still had some time left in the previous interaction (line 01 and 02). Therefore A must have relied not only on the linguistic content but also on B's sudden laugh in order to interpret B's utterance as indicating the actual signal to end the call. This example shows that a laugh in the middle of an utterance can convey to the hearer that the speaker is aware of something new. By analyzing such examples, this paper suggests the possibility of employing cases of misunderstandings as negative evidence to illuminate an aspect of vital signals which we usually utilize unconsciously in conversations. Identifying multimodal factors can enrich the idea of vocalization pole (Langacker 2001) in exploring symbolic units.

## References

- Chafe, Wallace L. 1994. *Discourse Consciousness and Times*. Chicago: University of Chicago Press.
- Clark, Herbert H. 1996. *Using language*. Cambridge: Cambridge university press.
- Langacker, Ronald W. 2001. Discourse in cognitive grammar. *Cognitive Linguistics* 12: 143–188.
- McNeill, David. 1992. *Hand and mind: What gestures reveal about thought*. Chicago: University of Chicago Press.

## Corpus

- Canavan, Alexandra, and George Zipperlen. 1996. *CALLHOME Japanese Speech*. Linguistic Data Consortium, University of Pennsylvania. Available at TalkBank (MacWhinney, Brian. 2007. The TalkBank Project. In Beal, Joan C., Karen P. Corrigan, and Hermann L. Moisl (eds.), *Creating and Digitizing Language Corpora: Synchronic Databases*. 1: 163–180. Houndmills: Palgrave-Macmillan).

## Postnominal possessives, affect and discourse establishedness in Central Mongolian

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This paper investigates the expression of speaker affect and common ground by means of postmodifying possessive clitics in Central Mongolian, with special focus on the degree of grammaticalization of each type of person pronoun.

In previous research, it was shown that Japanese utterance-initial personal pronouns (Ono & Thompson 2003) and Polish possessive pronouns in NP-initial position (Rybarczyk 2013) tend to fulfill frame-setting or identificational functions, whereas they fulfill emotive or attitudinal functions in utterance- or NP-final position. In Mongolian, this distinction became grammaticalized: postnominal possessive pronouns contracted to mono-morphemic clitics and exist only for a subset of pronouns (see Table 1).

Postnominal clitics retain their original meaning in a few well-defined contexts, but differ functionally from prenominal possessives elsewhere. The range of functions varies for different person forms. Both first person singular *min*' and second person honorific singular *tan*' express the familiarity of the possessor with the possessed; additionally, the former further denotes intimacy while the latter denotes deference. Similarly, first person plural *maan*' can denote speaker familiarity plus solidarity. In these uses, as illustrated in (1), possession or related notions are always expressed.

Possession as a semantic component can be dispensed with. For first person singular *min*', this requires the reinterpretation of intimacy as thorough familiarity when used with terms of offense, as in (2), where *gičii=min*' 'bitch of mine' is imbued with an interpersonal reading to yield the pejorative reading 'you bitch'.

For first person plural *maan*', notions such as solidarity and possession are not expressed if it is used to denote discourse-internal familiarity of the interlocutors with the referent, as in (3). With non-honorific second person singular *čin*', the speaker rather familiarizes the addressee with the referent, as illustrated in (4). In these uses, affect gives way to establishedness in discourse.

The postnominal possessive pronoun paradigm is completed by the third person form *n*' which extended its meaning from third person possession to membership in a group to definiteness marking (cf. Hammar 1982, Saitō 1999) without taking a detour over affective meanings.

Our analysis suggests the following hierarchy for Mongolian postnominal possessive pronouns, with the least grammaticalized and most affective forms to the left, and the most grammaticalized and impersonal forms to the right:

- (i) 2SG.HON < 1SG                      < 1PL                      < 2SG                      < 3  
*tan*'                      *min*'                      *maan*'                      *čin*'                      *n*'





## **Mandarin-speaking children's expressions of motion events in conversation and narration**

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Motion is experienced by humans around the world, but this experience can be expressed in diverse ways in different typological languages, namely verb-framed languages, satellite-framed languages, and equipollently-framed languages (Talmy 1985; Slobin 1996). The typologically different languages encode motions differently in terms of the use of verb types (i.e. Manner (M), Path (P), Deixis (D)), verb tokens, and verb constructions, which shape language-specific characteristics. It has been suggested that Mandarin, an equipollently-framed language, is characterized by the following patterns: the types of Manner are more than those of Path; the tokens of Manner are more than those of Path, and M+P+D is the most common construction (Chen, 2005). Children, when describing motions, must learn the language-specific patterns along the course of language acquisition. Previous studies have demonstrated that language-specific patterns could be found in young children (e.g. Choi & Bowerman, 1991). However, studies seem to present conflicting results regarding Mandarin-speaking children's motion expressions in different discourse genres. These studies showed that children narratives, but not their conversations, demonstrated equipollently-framed-language patterns (Guo & Chen, 2009; Huang, 2012). While previous studies have implied that children's language expressions could be different in narration and conversation, few studies have examined how genre differences may affect children's motion encoding. Therefore, the study aims to investigate how Mandarin-speaking children aged 3, 4 and 5 encode motion events in conversation and narration, and whether their use of the expressions differs in the two genres.

Conversation and narration data were collected from children of three age groups (3 to 5). In the mother-child conversation data, 401 motion clauses were collected from 8 children with a total data length of 4 hours. In the narration data, 402 motion clauses were collected from 22 children with a total data length of 1.5 hour. Three categories of motion verbs (i.e. M, P and D) and 9 categories of motion constructions (e.g. P, M+P, P+D, M+P+D) were coded. The data were analyzed in terms of the use of verb types, verb tokens, and motion constructions.

The results show that, in both genres, children in all age groups used more types of M than P, and that they preferred M+P+D constructions more than any other types of constructions, indicating that children's motion expressions in both genres present the characteristics of equipollantly-framed language. Although the patterns of the two genres showed some variations (such as the use of more diverse types of M and simpler motion constructions in conversation than in narration), the children's motion encodings were consistent with Mandarin's language-specific characteristics. That language-specific patterns were observed in both genres supports Slobin's (1996) "Thinking for Speaking" theory. In addition, the variations found in the comparison suggest that the different communicative goals of different genres could affect children's motion expressions to some extent. This study has provided a more comprehensive understanding of how language-specific characteristics are manifested in children's motion expressions, and how genres are related to the patterns of children's motion expressions.

## References

- Chen, Liang. (2005). *The Acquisition and Use of Motion Event Expressions in Chinese*. (Doctoral dissertation), University of Louisiana.
- Choi, S., & Bowerman, M. (1991). Learning to express motion events in English and Korean: The influence of language-specific lexicalization patterns. *Cognition*, 41, 83-121.
- Guo, J., & Chen, L. (2009). Learning to express motion in narratives by Mandarin-speaking children. In E. L. J. Guo, N. Budwig, S. Ervin-Tripp, K Nakamura, & S. Ozcaliskan (Ed.), *Crosslinguistic Approaches to the Psychology of Language: Research in the Tradition of Dan Isaac Slobin*. New York: Psychology Press.
- Huang, P. S. (2012). *Children's Expressions of Motion Events in Mandarin Chinese: A Corpus-based Study*. (M. A. Thesis), National Chiayi University, Chiayi.
- Slobin, D. I. (1991). Learning to Think for Speaking: Native Language, Cognition, and Rhetorical Style. *Pragmatics*, 1, 7-26.
- Slobin, D. I. (1996). Two ways to travel: verbs of motion in English and Spanish. In M. Shibitani & S. Thompson (Eds.), *Grammatical constructions: Their form and meaning* (pp. 70-96). Oxford: Oxford University Press.
- Talmy, L. (1985). Lexicalization patterns: Semantic structure in lexical forms. In T. Shopen (Ed.), *Language typology and syntactic description* (Vol. 3, pp. 57-149). New York: Cambridge University Press.

## A validation of EAP reading materials based on multiple corpus analyses

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The purpose of the study is to validate newly developed EAP reading materials and examine the quality of students' writing by conducting a corpus analysis and comparing the results of lexical coverage and multi-word patterns with those of texts in major corpora such as the British National Corpus from Oxford University Press (BYU-BNC), the Corpus of Contemporary American English (COCA), and the Academic Word List (AWL) developed by Coxhead (2000). The EAP reading materials in the study were developed under the framework of English for Specific Academic Purposes (ESAP), targeting towards the university students majoring in English linguistics in an EFL setting. Born out of a two-year team project for a course development, the process of text selection and revision was completed with the readability index and the students' appraisal as major criteria. In this study, the whole package of in-house reading materials was examined in terms of the frequency and coverage of vocabulary and use of lexical bundles against those in major corpora. Furthermore, the study compares the coverage of Academic English of the in-house materials with that of COCA subgroups in humanities and social sciences as potential genres covered in studies in English linguistics. The study reports on the following: (1) proportion of academic words based on the AWL; (2) proportion of academic words based on the BYU- BNC and COCA; (3) differences in the frequency and use of academic English between the major corpora and the in-house materials; (4) coverage of the in-house materials upon different sub-genres in the COCA; and (5) differences in the frequency and use of academic English between the humanities and social sciences group in COCA and in-house materials. By doing so, the study demonstrates the usability of corpus analysis in ELT materials selection and validation process with the pedagogical implications regarding the importance of corpora in language teaching and learning.

### References

- Coxhead, A. 2000. A new academic word list. *TESOL Quarterly*, 34, 213–238.
- Davies, M. 2008. The Corpus of Contemporary American English: 450 million words, 1990- present. <http://corpus.byu.edu/coca/>. (accessed: 10 August 2015)
- Davies, M. 2004. BYU-BNC. (Based on the British National Corpus from Oxford University Press). Available online at <http://corpus.byu.edu/bnc/>. (accessed: 6 July 2013)\

## **Modeling lexicalization in Chinese: Quantitative profiling and qualitative analysis**

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Language variation and change are encapsulated phenomenon involving many linguistic factors. The focal point of this paper is *lexicalization*, which in previous studies can refer to newly coding of conceptual categories in synchronic sense, or the process of adopting into the lexicon in diachronic sense. Both perspectives on lexicalization reveal the complexity of this multivariate phenomenon, and suggest a proper treatment at local/synchronic and global/diachronic level. This paper proposes to create the quantitative profile of a set of target lexical items based on large-scaled web corpus and to provide cognitive-functional linguistic explanation.

Historical linguistics, lexical semantics, and computational linguistics show insights in semantic changes. However, few studies adopt both quantitative and qualitative methods. Besides, generality of included target words, temporal information and other linguistic aspects should all be considered to understand factors contributing to conventionalization of a word. Therefore, we aim to provide quantitative profiling and qualitative analysis within proposed life stages of lexical items (diffusion, conventionalization, and inactivation), focusing on target words from different temporal points, and employing linear models with linguistic variables from: phonology, morphology, semantics, syntax, pragmatics, and sociolinguistics.

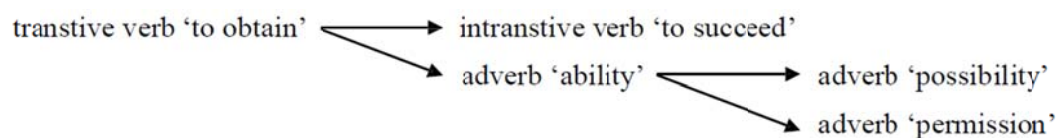
In quantitative profiling, linear regression model is built to distinguish words from different temporal points. The result indicates that pragmatic information can best account behavioral performance of words before 1950, while syntactical one best captures words after 1950, which implies that words live longer may be correlated with rich experiential and pragmatic using world knowledge, but for those newly coined, structurally syntactic compatibility is vital in deciding fluctuation in use. Diffused words are similar to words existing over centuries in revised constant U. Logistic regression model shows number of syllable, number of near-synonym, number of synonym, activeness in used in comments, and borrowing from other language or not are statistically significant variables distinguishing diffused words and words existing over centuries. Since words coined after 1950 and diffused words show similarities in their linguistic characteristics, prediction model based on training data from words after 1950 is built to foretell potential life of diffused words. Number of types co-occurring before target words is statistically valued in prediction. With words before 1950 and recent diffused words as test data the accuracy of model reaches 0.6335.

Qualitative analysis on competitions among words from the same WordNet *synset* indicates that structural compatibility and involved conceptual relations may be key for one lexical item to winning over the other synonymous member. Words from different temporal points show differences in activeness of being used in comments and posts in social media like PTT. Diffused words are more active in comments. This implies they are more correlated with feedback-oriented oral style and diffused through interaction. These findings can be applied to lexicography. Pragmatically stable in use, syntactic compatibility and semantically numbers of senses are suggested to be taken as standards for expanding inclusion of words in dictionary. The updated wordlist, including popularly used variants, more stable semantic representations, and words lexicalized from the same conceptual experiences, proves the inclusion is comprehensive based on our proposed criteria.

## Semantic extension of Indonesian verb “dapat”: A cognitive perspective

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Indonesian has a polyfunctional word called *dapat* that shows overlapping range of lexical and grammatical meanings, namely transitive verb ‘to obtain’; intransitive verb ‘to succeed’; and three adverbs ‘ability’, ‘possibility’, and ‘permission’. Among all of the five meanings stated above, the meaning ‘to obtain’ is arguably the most basic one since it corresponds to the most concrete event, which is readily accessible to intuition and has the highest degree of entrenchment and cognitive salience. With regard to the meaning relatedness of the multiple grammatical and semantic functions associated with *dapat*, this study aims to investigate its semantic extension by focusing on the synchronic relatedness between the lexical source meaning (transitive verb ‘to obtain’) and other extended meanings. Cognitive framework is employed due to the fact that cognitive perspective is appropriate for explicating the underlying motivations causing semantic extension of the intended verb. Besides that, the term ‘semantic extension’ is used here because both old and new meaning coexist without disappearance of the old one, that is to say, the transitive *dapat* is still used as a lexical verb along with another intransitive verb and adverbs. Three alternative paths are proposed to account for the semantic extension of *dapat*. First, the intransitive *dapat* which means ‘to succeed’ is argued to derive from the basic lexical meaning expressed by the transitive *dapat*. Furthermore, the transitive *dapat* extends its meaning into adverb ‘ability’. In the last path, adverb ‘ability’ as an extended meaning of the lexical source *dapat* develops into two other adverbs, ‘possibility’ and ‘permission’. To sum up, the semantic extension path of *dapat* can be schematized as below.



It is argued that the emergence of each of the various meanings extended from transitive *dapat* is primarily motivated by metonymic process and subjectification.

## Conditionals in physician-to-physician interaction

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The purpose of this study is to investigate the forms and functions of *if*-conditionals in Chinese medical interaction in terms of genres, the spoken and the written types. The spoken genre consists of ten peer lectures, while the written genre comprises forty research articles. In conditionals, the consequence (apodosis) is considered as a speculative state of affairs since its value is depending on a hypothetical condition (protasis). It is observed that conditionals are used more in spoken discourse than in written text (Ford and Thompson 1986, Ferguson 2001), and there are four basic relations, assuming, contrasting, expressing particular cases, exploring options, between initial conditionals and their preceding discourse regardless of genres (Ford and Thompson 1986). With the inherent non-assertiveness of conditional clauses, the speakers/writers can hedge, hypothesize, and manage interaction with their audience/readers and simultaneously modify degrees of commitment to their propositions. As indefiniteness and uncertainty are ubiquitous in medical realm, medical specialists tend to employ *if*-conditionals to qualify their commitment to the truthfulness of the propositions.

The results of my data show that as well as English, the Chinese prototypical pattern of conditionals is *if*-clause + consequence clause. However, different from English, where *if* is the protagonist for conditionals; in Chinese several words and phrases can be used to present conditioning. In my Chinese data, 43 syntactic forms including words and phrases are identified in the spoken discourse, whereas 10 are found in the written discourse. It is found that the speakers prefer *ruguo* 如果 to initiate Chinese *if*-conditionals, while the writers favor the monosyllabic *ruo* 若. In addition to words, the speakers and writers make good use of phrases to build *if*-clause, such as *ruoguo...dehua* 如果...的話, *ruogu...deshihou* 如果...的時候, and *yidan...shi* 一旦...時. Conditionals are utilized to present different communicative purposes, with some shared by both genres and some exclusively identified in either genre. Conditionals allow the speakers/writers to make deductions, predictions, and suggestions; they are used to provide supportive examples and alternative treatments; they play as warnings for potential upcoming problems; they also serve the interactional function to evoke the hearers/readers attention. Certain communicative purposes are only observed in the spoken interaction. For example, the speakers employ *if*-conditionals to circumscribe the scope of the following talks, to announce potential future actions, and to pose modest invitations to the audience. Some functions are identified exclusively in the written discourse. For example, the writers utilize



conditionals to demonstrate a strong cause-effect relationship between the *if*-clause and its consequence clause, to make subjective categorizations, and to provide information for the readers' reference.