The 28th North American Conference on Chinese Linguistics
(NACCL-28)

第 28 届北美汉语语言学会议 / 第 28 届北美汉语语言学会

May 5-8, 2016
Provo Marriott Hotel & Conference Center Brigham Young University

http://chineselinguistics.byu.edu/naccl28
naccl28.byu@gmail.com
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Organizer 主辦方
Brigham Young University 楊百翰大學

Organizing Committee 組委會成員
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Yu Liu, Co-chair
Matthew Christensen, faculty member
Ellen Knell, faculty member
Xinyi Wu, faculty member
Hsiao-Chien Chen, faculty member

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Chinese Flagship Center, Brigham Young University
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### Conference Program 會議日程

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<td><strong>Thursday, May 5th, 2016</strong></td>
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</table>
| 4:00-6:30        | Registration 報到註冊  
Location: Provo Marriott Hotel & Conference Center (Center Street Entrance)                   |
| 10:00-11:00      | Provo Wasatch Elementary immersion program visit 參觀沉浸式中文雙語教學小學                           |
| 11:30-1:00       | Lunch break 午餐  
Lunch will not be provided. There are many restaurants on Center Street and South University Avenue.  
For an alternate lunch location on BYU campus, you can try Cougar Eat food court that is located on the first floor of Wilkinson Student Center, approximately 2 minutes walk from the workshop location JFSB at Brigham Young University.  
大會不提供午餐。Center Street 和 South University Avenue 上有多間餐館供用餐選擇。如您想在楊百翰大學校園用餐，您可選擇在 Wilkinson Student Center 一層的 Cougar Eat 美食中心用餐，Wilkinson Student Center 離工作坊所在地 JFSB 步行僅需兩分鐘左右。 |
| 1:00-5:30        | 1:00-3:00 Workshop 1: Principles of Language Assessment （By Dr. Ray Clifford with Dr. Wu Xinyi)  
3:00-3:30 Break 茶歇  
3:30-5:30 Workshop 2: Using Language Corpora for Linguistic Research and Teaching (by Dr. Mark Davies)  
Location of workshops: 4010 JFSB, Brigham Young University  
培訓工作坊地點：楊百翰大學 JFSB 樓，4010 室 |
| 7:30-9:00        | Welcome Reception 歡迎招待會  
Location: Provo Marriott Hotel & Conference Center                                                   |
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| 8:00-5:00    | Registration 報到註冊 (Provo Marriott Hotel & Conference Center)  
Location: Provo Marriott Hotel & Conference Center (Center Street Entrance) |
| 8:30-8:45    | **Welcome and Opening Remarks 開幕致辭** (Aspen Room)                                                                                             |
| 9:00-10:30   | **Presentations** 論文報告  
| 1A Phonology/Dialects Chair: Yuchau Hsiao (Maple Room)  
1B Acquisition Chair: Nana Huang (Oak Room)  
1C Syntax Chair: Xiaowen Nie (Sycamore Room)  
1D Acquisition Chair: Xiaobing Zhou (Willow Room)  
| Sandhi Variation of the High-register Tones in Raoping Hakka (Yuchau E. Hsiao)  
English-Speaking L2 Learners’ Acquisition of Chinese Low Applicative Construction (Nana Huang)  
"Entering the BEI Era”: Emergence of the New Usage of BEI (Xiaowen Nie)  
汉语二语者中介语与相关语言的对比 (Xiaobing Zhou)  
| Let’s play: A Recipe for Gamifying L2 Mandarin Tone Learning (Xiaoshi Li, Qian Luo, & Catherine Ryu)  
How Learners of Different Language Types Acquire Motion Events Differently: A Study of Russian and Korean Learners of Chinese (Min Chen)  
Testing ba Sentences in Grounding Theory (Xin He)  
Testing Implicit and Explicit Knowledge in Second Language Acquisition: an Empirical Study about Tense-Aspect Processing in L2 Chinese (Yanyu Guo)  
| Subject-Predicate Disyllabic Forms in Chinese: A Perspective from Chaozhou Tone Sandhi (Meilin Zhan)  
L2 and Heritage Learners’ Acquisition of Chinese Dative Constructions (Chunsheng George Yang)  
Theoretical Analysis of Dao as Suffix to Perception Verbs (Junghwan Maeng)  
Second Language Learners’ Compliment Behavior in the L1 and L2 (Yen-Chen Hao)  
| 10:30-10:45 | Break 茶歇  
Book exhibitions 书展 |
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<th>Time</th>
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<td>10:45-12:15</td>
<td>Presentations</td>
<td>2A Phonology</td>
<td>2B Corpus</td>
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<td>論文報告</td>
<td>Chair: Yuan-Lu Chen</td>
<td>Chair: Hongyin Tao</td>
<td>Chair: Margaret Yeh</td>
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<td>Are Mandarin Tones</td>
<td>Genre Variation, Corpus</td>
<td>Are All Verbs Acquired</td>
<td>“江西云楼赣方言的”</td>
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<td>Linguistics, and Chinese</td>
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<td>Communication? (Yuan-Lu</td>
<td>Language Teaching</td>
<td>Comparison Between</td>
<td>(Meixiang Chang)</td>
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<td>Verbs in Mandarin</td>
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<td>Chinese (Margaret Yeh)</td>
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<td>Learning Artificial</td>
<td>Text-Setting of Mandarin</td>
<td>Rethink Chinese Relative</td>
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<td>Tonal Patterns: An</td>
<td>Tone in Children’s Song:</td>
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<td>Experimental Study</td>
<td>A corpus Analysis (Wang-</td>
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<td>(Sophia Kao)</td>
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<td>Analysis (Amy F-Y.</td>
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<td>Mandarin-English Code-</td>
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<td>Auxiliaries and Non-</td>
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<td>Switching (Wei-Fang</td>
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<td>Auxiliaries in Mandarin</td>
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<td>English Acronyms in</td>
<td>Chinese (Chong Zhang)</td>
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<td>Chinese Newspapers (Hai</td>
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<td>1:45-3:15</td>
<td>Presentations</td>
<td>3A Phonology</td>
<td>3B Acquisition</td>
<td>3C Syntax</td>
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<td>論文報告</td>
<td>Chair: Hongzhi Wang</td>
<td>Chair: Zhiying Qian</td>
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<td>方言历史比较与古音研究</td>
<td>Mandarin Word Order and</td>
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<td>(Hongzhi Wang)</td>
<td>Sensitivity to Verb Bias</td>
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<td>Lee, Hsin-Yi Lu, Susan</td>
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<td>1:45-3:15</td>
<td>Presentations</td>
<td>Onset and Tonal Effects on Perceived Vowel Duration (Yi-ling Chang)</td>
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<td>Understanding a Strategy in the Acquisition of Chinese Characters: From the Perspective of Sino-Korean Loanwords and Native Learners (Sun-mi Kim)</td>
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<td>The Typological Relation Between Intersubjectivity Semantics and Chinese Syntactic Behaviors (Yan Zhang)</td>
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<td>Knowing is Seeing – on the Grammaticalization and Subjectification of tai2 “see” in Cantonese (Winnie Chor Oi Wan)</td>
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<td>Chinese Speaking Learners’ Bound Variable Interpretations in L2 Japanese (Mineharu Nakayama, Zhiguo Xie)</td>
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<td>Outlining Chinese Syntactic Complexity development via TC (Qiaona Yu)</td>
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<td>Bayesian Pronoun Interpretation in Mandarin Chinese (Meilin Zhan, Roger Levy &amp; Andrew Kehler)</td>
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<td>3:15-3:30</td>
<td>Break</td>
<td>Break 茶歇</td>
<td>Book exhibitions 书展</td>
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<td>3:30-4:30</td>
<td>Plenary Speech</td>
<td>Language Variation and Aging: Construction of a Complexity Metrics for Chinese by Dr. James H-Y Tai (Aspen Room)</td>
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<td>4:30-6:00</td>
<td>Presentations</td>
<td>4A Phonology/dialects Chair: Yu-an Lu (Maple Room)</td>
<td>4B Acquisition Chair: Henghua Su (Oak Room)</td>
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<td>4C Syntax Chair: Yan Cong (Sycamore Room)</td>
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<td>Phonological Representation of Dialectal Variations (Yu-an Lu)</td>
<td>Lexicalization Patterns of Motion Events and the Acquisition of Chinese (Henghua Su)</td>
<td>Markedness Theory and the Acquisition of the Mandarin Potential Complement Construction (Yan Cong)</td>
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<td>The Effects of Task Types on L2 Chinese Learners’ Speaking Performance: Lexical Richness and Quality (Yu Liu, Xinyi Wu)</td>
<td>Syntactic-Semantic Variability and the Categorization of V$^\text{-}gila$ Constructions in Mandarin (Yu Li)</td>
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<td>4:30-6:00</td>
<td>Presentations 論文報告</td>
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<td>Inconsistent Consonant Effects on F0 in Tonal Languages: Inter- linguistic and Intra- linguistic Variation (Qian Luo, Karthik Durvasula &amp; Yen-Hwei Lin)</td>
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<td>Numeral Classifiers and Grounding in L2 Chinese (Jingjing Xu)</td>
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<td>Resultative Verb Complements in Modern Chinese and Pedagogical Implications (Hsin- hung Yeh, Bella Chen)</td>
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<td>6:30-9:30</td>
<td>Banquet 招待晚宴</td>
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<td>Saturday, May 7th, 2016</td>
<td>Registration 報到註冊 (Provo Marriott Hotel &amp; Conference Center) Location: Provo Marriott Hotel &amp; Conference Center (Center Street Entrance)</td>
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<td>8:00-12:00</td>
<td>Presentations 論文報告</td>
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<td>5A Variation Chair: Zhengsheng Zhang (Maple Room)</td>
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<td>5B Corpus/Acquisition Chair: Lawrence Cheung (Oak Room)</td>
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<td>5C Semantics Chair: Yaobin Liu (Sycamore Room)</td>
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<td>Two Dimensions of Register Variation in Chinese and English (Zhengsheng Zhang)</td>
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<td>Morphological Variation of Wh-placeholders in Mandarin and Cantonese (Lawrence Cheung &amp; David Li)</td>
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<td>Quantifier Scope in Mandarin Ditransitives (Yaobin Liu, Hongchen Wu)</td>
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<td>Variation in Disagreement in Everyday Mandarin Conversation (Weihua Zhu)</td>
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<td>A Corpus Study of Post-verbal KEOI in Cantonese-English Bilingual Children (Jiangling Zhou, Virginia Yip)</td>
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<td>Revisiting Mandarin Pseudo-ditransitive Verbs (Pei-Jung Kuo)</td>
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<td>Grammatical Constraints on Chinese-English Intrasentential Codeswitching (Alyssa Massey-Plantinga)</td>
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<td>How much fieldwork data do we need? The case of Siyi Yue dialects. (Tsz-Him Tsui, Yutian Tan)</td>
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<td>The Influence of Structure and Transparency on Compound Word Recognition in Chinese: Evidence from the Transposed-character Effect (Yun Yao)</td>
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<td>10:00-10:15</td>
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| 10:15-11:15   | **Plenary Speech** 大會主題演講  
Language and Variation in Performance: Sun Zhongshan’s (孫中山) 1924 Cantonese Speech  
by Dr. Marjorie K.M. Chan (Aspen Room) |
| 11:30-1:00    | Lunch 午餐  
Lunch will not be provided. There are many restaurants on Center Street and South University Avenue.  
大會不提供午餐。Center Street 和 South University Avenue 上有多間餐館供用餐選擇。 |
| 1:00-2:30     | **Presentations** 論文報告  
6A Syntax/Dialects  
Chair: An-King Lim (Maple Room)  
Sino-Turkic and a Fuller Realization of the Rhetorical Power of Medieval Poetry (An-King Lim)  
The Syntax of ha Polarity Questions in Wuhu Chinese (Zhuo Chen)  
Interface of Syntactic and Prosodic Domain in Shanghaiese (Lianye Zhu) |
|               | 6B Lexicon  
Chair: Adrian Tien (Oak Room)  
Offensive Lexicon in Chinese as Evidence of Intra-cultural Semantic Variation (Adrian Tien)  
A Survey of the Cambodia Chinese Diaspora (Dana Bourgerie)  
That which we call "Chinese": Socio-cultural meanings associated with language names (Tsz-Him Tsui) |
|               | 6C Semantics  
Chair: Zhang Wan (Sycamore Room)  
汉語跨方言視角下基于反復義的動詞重疊式研究 (Zhang Wan)  
A HPSG analysis of non-sentential coordination with he/gen/yu/ji/tong in Mandarin Chinese (Aixiu An) |
| 2:30-2:45     | **Break** 茶歇 |
| 2:45-4:15     | **Presentations** 論文報告  
7A Syntax  
Chair: Hanzhi Zhu (Maple Room)  
Tense Restrictions in Mandarin Chinese: Evidence from Aspect and Focus (Hanzhi Zhu)  
| 7B Semantics  
Chair: Yan Li (Oak Room)  
Adverbial quan: Distributing via an Encapsulated θ-role (Yan Li)  
形声字的声旁也表意吗？ (Kening Li) |
|               | 7C Characters/Writing  
Chair: Kening Li (Sycamore Room)  
漢語詞義共時演變社會動力學分析 (Kening Li) |
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<td>2:45-4:15</td>
<td>Presentations</td>
<td>Is Mandarin Chinese Tensed or Tenseless? (Wei Wei (Haley))</td>
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<td>A Usage-based Account of the Emergence and Variation of the Constituent dehua (Yi Wang)</td>
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<td>Mandarin Logographic Writing System and Auditory Perceptual Simulation During Silent Reading (Zhiying Qian &amp; Kiel Christianson)</td>
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<td>臺灣四縣客家話的共時變體 (Chu-Fang Huang)</td>
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<td>Acquisition of Transitivity in L2 Chinese: The Case of the ba Construction (Rain Yu Tian)</td>
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<td>On Complement Coercion in Mandarin Chinese (Chia-Fen Wu)</td>
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<td>4:45-6:15</td>
<td>Presentations</td>
<td>8A Dialects Chair: Xiaomei Wang (Maple Room)</td>
<td>8B Syntax Chair: Chen Yue (Oak Room)</td>
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<td>Changes in Tianjin Disyllabic Tone Sandhi in Apparent Time (Xiaomei Wang)</td>
<td>A Construction-Based Account of the Chinese Middle Construction (Chen Yue)</td>
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<td>English [z] in Mandarin: Is What We Hear the Same as What We Say? (Yu-Leng Lin)</td>
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<tr>
<td>4:45-6:15</td>
<td>Presentations</td>
<td>Language Attitudes towards Putonghua and Local Dialect in Guangdong and Hunan (Sha Huan)</td>
<td>‘Theme + Verb’ Construction in Pre-Qin Chinese (Liulin Zhang)</td>
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<td>The Acquisition of Fricatives and Affricates in Taiwan Mandarin (I-Ping Wan)</td>
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<tr>
<td>6:15-6:30</td>
<td>Closing Ceremony</td>
<td>Closing Ceremony (Aspen Room)</td>
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<td>6:30</td>
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Conference Abstracts 會議報告摘要

Language Variation and Aging: Construction of a Complexity Metrics for Chinese
James H-Y Tai (戴浩一)
National Chung Cheng University

Language diversity and language variation has rarely been systematically studied from an individual’s language development over lifespan, with the notable exception of the now famous Nun Study (Riley, Snowdon, Desrosiers, & Markesbery, 2005; Snowdon, Grenier & Markesbery, 2000; Snowdon, Kemper, Mortimer, Greiner, Wekstein, & Markesbery, 1996). The Study has been an on-going longitudinal, epidemiological study of aging, of which one important focus is the investigation of the relationship of linguistic ability, i.e., idea density and grammatical complexity, to the risk for Alzheimer’s disease and to longevity.

Obviously, the metrics of idea density and grammatical complexity as developed from English language cannot easily be applied to Chinese due to the drastic differences in lexical semantics and syntactic structures in these two languages. This paper will report some of the key components for constructing a complexity metrics for measuring age-related language attrition in Chinese.

It will be argued that the complexity metrics in Chinese can serve as linguistic markers, in conjunction with biomarkers and cognitive markers, for diagnosing MCI (mild cognitive impairment), which indicates early signs of Alzheimer’s disease (AD). In addition, the metrics can be used to index inter-individual and intra-individual differences in language competence and performance for the Chinese elderly with and without dementia.

Other uses of the metrics are the measurement of child language acquisition in Chinese and acquisition of Chinese as a second language. Yet, the most significant value of the metrics is to pilot a hitherto untrodden territory of language diversity and variation, thus adding to the further understanding of the nature of human language and in particular Chinese language.

Language and Variation in Performance:
Sun Zhongshan’s (孫中山) 1924 Cantonese Speech
Marjorie K.M. Chan (陳潔雯)
The Ohio State University

Sun Zhongshan 孫中山 (Sun Yat-sen 孫逸仙), the father of modern China, was audiorecorded in Guangzhou by the China Evening Post (中國晚報) on 30 May 1924. Two political speeches were recorded concerning a policy for national salvation (Jiuguo Fangzhen 救國方針), one read in Cantonese and the other in Mandarin. These two recordings are our only known recordings of Dr. Sun’s speech production. This paper focusses on his Cantonese speech, available online at multiple websites.

The audiorecording is quite short, under 7 minutes in length. Nonetheless, it reveals some very interesting features of subdialect-mixing and language variation, reflecting a person who has lived in different Cantonese-speaking regions. Variations found in his speech are due at least in part to lengthy exposure to both Zhongshan Cantonese (the speech of Shiqi (石岐), today’s Zhongshan City (中山市)), and standard Cantonese spoken in Hong Kong and Guangzhou. Not surprisingly, he retains some features of Zhangshan Cantonese (cf. Chao (1948, based primarily on fieldwork conducted in 1929 in Shiqi), and Chan (1980)), the lingua franca of his home district where he was born, Xiangshan (香山), which was renamed Zhongshan (中山) in his memory in 1925). At the same time, having lived in both Hong Kong and Guangzhou, and thus exposed to standard Cantonese spoken in those two major cities, his speech also contained standard Cantonese (cf. Ball 1924). More importantly, however, was his conscious, or semi-conscious, effort to use standard Cantonese for the recording. Thus, although his speech production contains a mixture of Zhongshan and standard Cantonese, his language choice for this mediated performance of a political speech was standard Cantonese.¹ This is evidenced by an instance of his correcting and replacing his Zhongshan pronunciation

¹ In fact, Cheng (2011) uses the 1924 audiorecording to draw some conclusions on the sounds of early 20th century Guangzhou Cantonese, such as the split of Yinping into [53] and [55].
with that of standard Cantonese. He clearly understood the political nature of the recording, and was targeting his speech to a broader, regional audience for whom standard Cantonese would have greater appeal and prestige.

The recording provides a glimpse into the very distinctive speech style that Dr. Sun uses for his public persona of a national, political figure, a speech style that is a hybridized variety of Cantonese. Three basic patterns can be found in his speech production: 1) adoption of standard Cantonese segments and tones (e.g., [m] and no [m]), Yinping high falling and Yangping low falling), 2) retention of Zhongshan segments and tones (e.g., one Shang tone and one Qu tone), and 3) variation and fluctuation between standard Cantonese [ei] versus Zhongshan [i], for example, sometimes producing [ei] and sometimes [i] (e.g., 内地 [nǐ tì] ‘inland,’ 我喺 [wǒ tei] ‘we,’ and 界 [jiè] ‘give’), or producing, with some gusto, a series of [i] monophthongs in the phrase. 自己打自己 [tī ki tsi ki] ‘each (country) fights itself,’ instead of the standard Cantonese pronunciation, [tī kei tsi kei].

The above is a sampling of the findings on Dr. Sun’s mediated performed speech that has a political agenda. The study ends with some observations and suggestions for future research.

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**Sandhi variation of the high-register tones in Raoping Hakka**

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National Chengchi University

This paper addresses the variation of the high-register tone mappings in Zhuolan Raoping, a subdialect of Raoping Hakka spoken in Central Taiwan, using a Stochastic OT approach (Boersma and Hayes 2001). Based on my field work, I posit three high-register tones, 55, 53 and 5, and three low-register tones, 11, 31 and 2. I use HR to stand for high register, and LR for low register. Zhuolan Raoping is surrounded by several bigger Chinese dialects, such as Mandarin, Southern Min, Dongshi, Hailu and Sixian, and has been affected by those dialects. Due to its long-term, close contact with the neighboring dialects, Zhuolan Raoping has displayed tone sandhi variation, and the affected, or acquired, forms become more common than the native forms.

Previous studies before 2008 (J. Hsu 2005, Peng 2007, and K. Hsu 2008) have observed that the high-register smooth tones (55 and 53) map to 33 when followed by a low-register tone, but map to 11 before any high-register tone. In this research, however, the established corpus shows that 55 and 53 tend to map to 33 even before a high-register tone. This research establishes a corpus of Zhuolan Raoping, based on the recording of four informants, two males and two females, aged from 47 to 66. The corpus contains 6627 renderings of disyllabic and trisyllabic data. There are 980 [HR HR] combinations in disyllabic and trisyllabic expressions; in 652 of them the HR tones map to 33, found in 67%, while in 328 of them the HR tones map to 11, found in 33%. The high-register tone mappings are determined by the interaction between IDENT-HR, which requires the preservation of high register, and OCP-HR, which bans adjacent high-register tones. Accordingly, OCP-HR is 67% probably dominated by IDENT-HR, but 33% probably dominates the latter.

Stochastic evaluation is based on an unbounded, continuous scale of constraint strictness, where higher values correspond to higher-ranked, stricter constraints. Each constraint is arbitrarily assigned a selected point (i.e., the value used at evaluation time) on the ranking scale. As illustrated in (1), the selected point is not a single point, but is associated with a range of values, represented by the rounded rectangles. The center of the range is referred to as the ranking value. If the ranges of the selected points do not overlap, the ranking between the relevant constraints is categorical; at this point, the tone markedness constraints (*31, *55 and *53) constantly outrank ID-THR. If the ranges overlap, the constraint ranking is variable; Q indicates the overlapped area between IDENT-HR and OCP-HR, in which IDENT-HR may choose a part that is lower than OCP-HR, and a reverse ranking may occur, as indicated by the vertical
dashed line. The schema in (1) shows that the selected point of the constraint, OCP-HR, has gradually moved downward on the continuous scale.

(1) Constraint ranking adjustment

The dashed rounded rectangle represents the selected point of OCP-HR in 2008, where the categorical ranking “OCP-HR >> IDENT-HR” renders the exclusive 11-mapping observed in the previous studies. The boldfaced rectangle represents the selected point of OCP-HR at present; the overlap between IDENT-HR and OCP-HR allows the acquired 33-mapping to emerge, as found in the current corpus. The right-headed dashed arrows indicate the direction of the constraint movement. The schema also implies that OCP-HR will be continuously demoted and the 11-mapping may eventually vanish. In brief, allowing variable rankings between constraints, stochastic evaluation makes predictions of relative markedness, particular frequencies and the emergence of the acquired form.

Let’s play: A Recipe for Gamifying L2 Mandarin Tone Learning
Xiaoshi Li, Qian Luo, Catherine Ryu
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This study aims to integrate theoretical insights on L2 and L1 acquisition of Mandarin Chinese tones into concrete instructional materials for English speakers. These materials can be also implemented as a tone production game with a hierarchy of difficulty. The study thus generates an innovative approach to designing tone learning sequences and a training tool, the efficacy of which will also be reported based on the outcomes of a series of preliminary experiments.

Theoretical Background
The sequencing of tone learning model takes into consideration the following three aspects: (i) different difficulties for L2 speakers’ acquisition of Mandarin tones in production and perception; (ii) orders of phonological acquisition by Chinese speakers, including sequential acquisition of tones, consonants, and vowels; (iii) lexical frequencies in several spoken Chinese corpora. As such, this research is a pioneering attempt to integrate insights from studies on L2 and L1 acquisition of Mandarin tones into a novel approach to a game-mediated Chinese tone L2 acquisition. The outcomes of this study will contribute to the ongoing discourse on the relationship between L1 acquisition and a L2 learning model, while further illuminating the extent to which human language capacity and principles of L1 acquisition play a role in L2 acquisition.

Design of the Tone Learning Model
The proposed model maps out the modules of learning based on a hierarchy of tone difficulty for English-speaking learners of Chinese and translates them into learning and game environment. Each module includes a set of sounds with tones, presentation format, assessment tools and feedback features. All tokens are carried in a monosyllabic CV template.

Implications
The study provides a model for L2 Mandarin tone learning in a self-paced gamified environment. It also serves to bridge previous theoretical L2 learning models such as Perceptual Assimilation Model and Speech Learning Model, thereby illuminating the connections between L1 and L2 acquisition of Mandarin tones.

Subject-Predicate Disyllabic Forms in Chinese: A Perspective from Chaozhou Tone Sandhi
Meilin Zhan
University of California, San Diego

In Chinese, Subject-Predicate (S-P) compounds such as di-zhen (“earth-quake”) are relatively rare in
comparison with other compounds such as Noun-Noun compounds (e.g. *deng-ta* “light-house”), Adjective-Noun compounds (e.g.*hei-ban* “black-board”) or Verb-Object compounds (e.g. *kai-che* “drive car”) (Bian, 2000; Shen, 1998). Some S-P forms in Chinese such as *ri-chu* (“sun-rise”) are structurally ambiguous between a phrasal reading (“sun rises”) and a compound reading (“sunrise”). This raises a question: How can one distinguish between the two possible readings? Existing work in Mandarin Chinese has focused on distributional evidence. For example, by inserting an intensifier *hen* (“very”) and varying the scope of modification, we are able to disambiguate the phrasal reading (1a) and the compound reading (1b) (Dong 2011).

(1a) Ta ku-le bantian, yan hen-hong.  (1b) Tongshi shengzhi-le, ta hen yan-hong

He cry-ASP half day eye very red        Colleagues promote-ASP he very eye red

“He has cried for a while and (his) eyes are very red.”        “Colleagues got promoted. He is very jealous.”

This study provides another way to distinguish the phrasal reading and the compound reading by looking at tone sandhi in a variety of Southern-Min Chinese – Chaozhou.

Chaozhou has a rich tonal system. The citation form of each monosyllabic word in Chaozhou has a fixed tone value (Zhang, 1989; Lin, 1995). When there are two or more monosyllabic words, the tone value of the first syllable changes. However, if there is a pause, then the tone sandhi domain is split by the pause. Usually a pause occurs between the subject and the predicate, so the subject and the predicate each have their own tone sandhi domain (Zhang, 1989). This tone sandhi feature in Chaozhou thus provides us another tool to disambiguate the phrasal reading and the compound reading. If tone sandhi occurs in a Subject-Predicate form, it suggests the compound reading. If there is no tone sandhi in a Subject-Predicate form, it suggests that this form is not highly lexicalized and still retains a sense of phrasal structure.

Subject-Predicate forms in Chaozhou exhibit clear taxonomy based on the presence or absence of tone sandhi and whether it allows both phrasal and compound readings. The numbers in the table indicate tone values. In Type A, no tone sandhi is allowed, and both phrasal and compound readings are possible. Type B can be with or without tone sandhi, and both phrasal and compound readings are possible. Type C requires tone sandhi and only the compounding reading is available.

<table>
<thead>
<tr>
<th>Type</th>
<th>Citation</th>
<th>Disyllabic</th>
<th>Sandhi</th>
<th>Gloss</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>zik², tshuk²</td>
<td>zik² tshuk²</td>
<td>Yes</td>
<td>sun-rise</td>
<td><strong>“sun-rise”</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>zik² tshuk²</td>
<td>No</td>
<td>sun-rise</td>
<td>“sun-rise; The sun rises”</td>
</tr>
<tr>
<td>B</td>
<td>zik², tau²</td>
<td>zik² tau²</td>
<td>Yes</td>
<td>sun-noon</td>
<td>“noon”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>zik² tau²</td>
<td>No</td>
<td>sun-noon</td>
<td>“It’s noon”</td>
</tr>
<tr>
<td>C</td>
<td>ui²¹, i⁵⁵</td>
<td>ui²¹ i⁵⁵</td>
<td>Yes</td>
<td>location-move</td>
<td>“displacement”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ui²¹ i⁵⁵</td>
<td>No</td>
<td>location-move</td>
<td>“Position moves”</td>
</tr>
</tbody>
</table>

The observed relationship between tone sandhi and its corresponding meaning (whether phrasal or compound) offers a new perspective to study Subject-Predicate compounds. This study provides a starting point to explore the crosslinguistic patterns of compounds and the supposed rarity of Subject-Predicate compounds.

**English-Speaking L2 Learners’ Acquisition of Chinese Low Applicative Construction**

Nana Huang
Cambridge University

Recent studies of argument structure distinguishes non-core (applied) arguments from core arguments in the sense that non-core ones do not belong to the basic argument structure of verbs and that they enter argument structures through Applicative Operations introduced by functional heads such as Low Applicative-source (LA-source) or Low Applicative-goal (LA-goal) (Pylkkänen, 2002; 2008).

In English, a predicate which expresses the transfer of a theme to a goal, such as verbs indicating creation (e.g. bake, design, build), can be merged by an LA-goal which introduces a goal applied argument, as (1a) shows. By contrast, in Chinese only predicates portraying transfers with ‘reverse directionality’ can be merged by an LA head and form an LA-source sentence, as in (1b).

1. a. John baked **Lily**(the applied argument) a cake. (LA-goal)
   b. Zhangsan chi-le **Lili**(the applied argument) liang ge pingguo. (LA-source)
How learners of different language types acquire motion events differently: A Study of Russian and Korean Learners of Chinese

Min Chen
The University of Arizona

This study examines second language learners’ acquisition of Chinese motion events by employing Talmy’s cognitive language typology. According to Talmy (2002), languages can be divided into two types: verb-framed languages and satellite-framed languages, based on how a language encodes the main event. Languages that encode the main event onto the main verb are ‘verb-framed languages’, such as Japanese and Spanish (That girl enters the classroom), and those that encode the main event onto particles are ‘satellite-framed languages’, such as English and Chinese (That girl walks into the classroom). This typology has been applied in L2 acquisition studies, including Cadierno and Lund (2004)’s study of Danish learners of Spanish producing Spanish narratives and Spanish learners of Danish producing Danish narratives, and Römer, O’Donnell and Ellis (2015)’s study of L2 learners’ knowledge of Verb-argument constructions. These studies show that the language typology is a key factor that affects L2 learners’ acquisition of motion events and verb-argument constructions.

In the study, I would like to find out if the same pattern is also found in L2 Chinese, that is, whether learners of Chinese whose L1 are satellite-framed and verb framed behave differently in the way they describe motion events. The L1 background languages that I choose include Korean and Russian. Korean is a verb-framed language, while Russian and Chinese are satellite-framed languages. For instance, an owl popped out is expressed in Russian as: Tam vy-skochila sova (There out-jumped owl); in Korean as: Bueongi ga twieonawassda (an owl subject particle-out); and in Chinese as: Feichu yi zhi maotouying (Fly out one-CL owl).

The participants are 15 native speakers of Chinese, 12 Korean and 15 Russian learners of Chinese. The subjects watched 15 video clips and wrote one sentence to describe each clip. The clips include the following events: 1) A girl jumps off the bed. 2) A woman walks into a classroom. 3) A cat jumps into a box. 4) A bird popped out from a cage. 5) A cat walks/runs downstairs. 6) A baby climb up to the bed. The number of each participant’s use of verb
form was recorded. The results show that native speakers of Chinese preferred to use verb complement (93.33%) to describe the main event of off the bed, into the classroom, etc. The Russian learners’ group also relied on something other than the main verb to describe the same main event, with 84.44% of speakers using verb directional complement. However, only 52.78% of Korean learners used verb directional complement. A one-way ANOVA showed a significant difference among language groups. The findings indicate that language typology plays an important role in acquiring Chinese motion events. L2 learners whose L1 is a satellite-framed language, similar to Chinese, produced more target-like forms, while learners with L1Korean, which is a verb-framed language, had difficulty producing the correct forms when they express motion events. These results further support the studies mentioned above, which also confirm the role of Talmy’s typology in L2 acquisition.

L2 and heritage learners’ acquisition of Chinese dative constructions
Chunsheng Yang
The University of Connecticut

Dative constructions occur in almost all world languages and are one of the most widely researched topics in linguistics and language acquisition. The dative constructions in English and Chinese share both similarities and dissimilarities. While there are many studies examining the L1 and L2 acquisition of English dative constructions and some studies examining the L1 acquisition of Chinese dative construction, studies on the L2 acquisition of Mandarin dative constructions are scarce. To fill this research gap, this study examines the acquisition of Mandarin dative constructions by L2 Chinese and heritage learners.

20 English-speaking L2 learners and 20 heritage speakers of Mandarin Chinese, as well as 20 Mandarin speakers, participated in this study. A questionnaire was designed to elicit the participants’ personal information, their judgment of the grammaticality of the dative sentences, and their corrections of the ungrammatical sentences, if any.

Data analysis showed that the native speakers did better than the two learner groups, and the heritage learners overall did better than the L2 learners, due to their early or daily immersion in the target language. Similar to the findings in L1 acquisition, the double object constructions, although more marked than the other dative constructions, tended to be considered to be correct and be used to correct the “wrong” dative constructions. It was found that the two groups of learners did not have the semantic knowledge of different types of dative verbs and tended to rely on their L1 in the translation and grammatical judgment. As a result, wrong translations and wrong judgment tended to occur more often when verbs are used in different dative constructions in English and Chinese and learners’ performance in the grammaticality judgment is also verb-dependent. Therefore, the acquisition of the Mandarin dative constructions by the L2 and heritage learners is a joint product of linguistic universal (i.e., preference for the double object construction), the L1 transfer (i.e., dependent upon the semantic mapping and the correspondence of the same verbs in English and Mandarin Chinese), and the individual difference (i.e., the difference in the familiarity with some verbs). The findings of this study have important pedagogical implications, especially for the dative verb teaching.

“Entering the BEI Era”: Emergence of the New Usage of BEI
Xiaowen Nie
Department of East Asian Studies, University of Arizona

This study reports on the emergence of a new usage of BEI (被) in Mandarin Chinese since 2009, as illustrated in (1) and (2):

(1) 中国幸福城市十强出炉，石家庄衡水“又被幸福了”。 -- hebei.ifeng.com, 2015-03-04
(2) 朋友被班主任被学校，被毕业，被就业，东西放在学校遗失之后老师的解释。我只想说，这波解释，我给零分。 -- weibo.com, 2015-11-10

Different from the BEI passive, the new BEI structure features intransitive verb (2), noun, adjective (1) as the predicate after BEI. In addition, the new BEI can be used in both active sentences (1) and passive sentences (2). Therefore, the new usage does not seem to be a new passive in the syntactic sense.

For the study of pragmatic phenomena, Levinson proposes three Inferential Principles that motivate behavior norms in language use (Levinson, 1995). Employing this method, we show that the new BEI encodes rich non-linguistic information that is not conveyed in the BEI passive. It exhibits a pragmatic function which expresses a sense of the subject referent “being forced” or “having no control of” the events happening to it, and also transmits the
subject’s discontent or helplessness in the situation. Its scope goes beyond the clause to the event. Any man-made event or situation can be attached with BEI to indicate “lack of control”. If the event happens to be expressed by the old BEI, we will not detect any new meaning; but if it is expressed by the new BEI, we will notice the new pragmatic meaning. In the latter sense, in what way the event shows lack of control depends on the context. For example, bei jiehun could mean that someone got married against his/her will or that the person was actually not married but was intentionally wrongly reported to be married. In the second interpretation, the sense of being intentionally and wrongly reported is a pragmatic inference which is present when BEI occurs with a stative predicate.

According to Traugott (1988), metaphorization is an important factor of semantic-pragmatic changes in grammaticalization. It results in shifts of meanings from concrete to abstract. The new BEI’s inference of “lacking control” is a metaphorical meaning that comes from the non-agency sense of the subject of the passive BEI. Throughout the grammaticalization history of BEI, there have been meaning changes from denoting concrete physical actions (“to cover”, 被寝衣也) to passiveness (Sun, 1996). The new sense of “lacking control” is a further abstraction from passiveness. It signifies that the new BEI is being grammaticalized from a passive marker to a marker of special pragmatic purposes.

**Testing ba sentences in grounding theory**

Xin He
University of Arizona

This study examines the distribution of the Chinese ba sentences in discourse with regard to grounding. To date there are two approaches to grounding. One approach, according to Hopper (1979), associates grounding with sequentiality (the narrow view). The other approach associates grounding with transitivity, according to Hopper and Thompson (1980) (the broad view). In both views, aspect is an important feature: in the narrow view, perfective serves as a device for foregrounding; in the broad view, perfective is a feature of high transitivity, which is correlated with foregrounding. The two approaches make different predictions on the distribution of ba sentences. By the broad view, we expect ba to occur mostly in foregrounded clauses, because the ba construction is highly transitive. By the sequentiality view of grounding, we expect ba to occur in foregrounded clauses only when it satisfies the requirement of sequentiality.

In this study, I will find out which approach better explains the behavior of ba sentences in discourse with respect to grounding. In addition, I will also find out whether the distribution pattern of ba sentences in discourse correlates with aspect. The research questions are as follows:

1. Do the ba sentences that are highly transitive occur mostly in foregrounded clauses?
2. Do perfective ba sentences occur in foregrounded clauses and imperfective ba occur in backgrounded clauses?

To answer these questions, I collected 40 ba sentences from one chapter (out of roughly 13547 words) of a contemporary fiction. The data shows that, 47.5% of ba (19 out of 40) in my data occurs in backgrounded clauses, and rest of the data occurs in foregrounded clauses. 100% of ba show high transitivity on features of Participants, Kinesis, and Volitionality. Among 40 ba sentences, there are 17 punctual clauses and 13 of them occur in foregrounded clauses, and there are 23 non-punctual clauses and 8 of them occur in backgrounded clauses. Therefore, Punctuality highly correlates with foregrounding. Punctuality is a sign of sequentiality. It moves the narrative forward in time, and it reveals how the events unfold following the temporal order with temporal juncture. Thus, the data shows that sequentiality is a good predictor of where ba sentences would occur in discourse. It also shows that transitivity as a whole does not predict the behavior of ba sentences in discourse, however, one parameter, Punctuality, does. In addition, the data does not support the correlation between aspect and grounding. It is not the case that if a ba sentence is perfective, it occurs in foregrounding, and if a ba sentence is imperfective, it occurs in backgrounding. What we find is that perfective ba sentences occur in both foregrounding and backgrounding.

We conclude that the sequentiality view of grounding better explains the behavior of the ba sentences. In addition, neither transitivity nor perfectiveness predicts the distribution patterns of ba sentences in discourse.
Theoretical Analysis of Dao as Suffix to Perception Verbs
Junghwan Maeng
University of Illinois at Urbana Champaign

The research attempts to analyze perception verbs that occur frequently with the –dao ending in order to better examine the nature of –dao verbal ending attached to perception verbs. Traditionally, -dao verb endings are usually understood as a preposition, used to indicate the extent to which the action or event denoted by the head verb has been achieved. However, -dao, when attached to a perception verb, behaves as a suffix as it does not percolate its meaning and argument structure to the entire compound verb, but only assigns the feature of achievement verb to it. In order to support the assumption that –dao is a grammatical suffix that assigns the entire compound with the feature of achievement verb, I am applying the classification of four types of verbs proposed by Vendler to examine if the achievement verb feature is assigned to the perception verb compound by –dao ending.

Chinese perception verbs can be divided into two different groups: sensory perception and mental perception verbs. As for sensory perception verbs such as kan, ting and wen, they are treated as activity verb in Chinese and allow both jian and dao. And when they are suffixed by dao, they are assigned with the feature of achievement verb which indicates endpoint or result of action. On the other hand, mental perception verbs like xiang, gan, yishi and ganjue do not allow jian as a resultative ending and occur most frequently with the suffix dao. According to Vendler’s verb classification, these mental perception verbs fall under the category of state verb since they all refer to mental states which occur internally to an agent. As indicated in their usage in actual contexts, dao assigns the feature of achievement verb by transforming a mono-morphemic mental state verb into a verbal compound that requires the interpretation of achievement verb.

Moreover, when dao is attached to dimorphemic mental perception verbs such as yishi and ganjue, dao gains an additional function besides being an achievement marker. Dimorphemic mental perception words like yishi and ganjue have different word classes depending on their syntactic position in a sentence. When these words are placed in a position where noun phrases occur (subject or object position), they need to be interpreted as a noun. If the dimorphemic mental perception verbs were to occur as a predicate in a sentence, they require dao suffixation. Given this, it can be said that for dimorphemic perception verbs, dao suffixation was selected not only for marking achievement but also for enabling themselves to function as predicate in a sentence.

Furthermore, I intend to use corpus data of Communication University of Chinese to compare the frequency of dao with other verbal suffixes such as le, zhe and guo because frequency is a significant indicator of a suffix, whose high productivity is closely related to the frequent occurrences on a variety of verb to create inflected forms. Given this, if the corpus data proves that the frequency of –dao is as high as other suffixes or even higher than them, then this would provide a supporting evidence that –dao can be understood as a suffix when paired with a perception verb.

汉语文二语者中介语与相关语言的对比
周小兵
中山大学（中国）

中介语是二语学习中构建的、不同于母语和目标语的语言系统。跟其他语言相似，有规则和发展规律。对比中介语和相关语言，可促进二语教学、二语习得和语言本体研究。

一、跟当代标准目标语的对比
对比异同，有利于归纳目标语和学生母语的规则。对比正确率、偏误率等，有利于概括中介语发展过程和规律。

二、跟学习者第一语言的对比
可探索偏误原因，促进教学。“*他在饭馆四年工作了” “*我被病了”源于母语迁移。

（1）韩国语 그는 음식점에서 4 년 일했다.
词译： 他主格标 饭馆处所标 四年 工作完成体
越南语:

越南语:

词译: 我 被 病 了

三、跟目标语幼儿语言的对比

（3）a.*衣服被湿了。（多） b. *他被撞车了。（中） c. *窗户把球踢碎了。（少）
以上偏误类型、频率，汉语幼儿语言和中介语相似。说明一语习得和二语习得有相似的机制。

可证实汉语研究假设。“在”合体说认为，“他在图书馆看书”由两个深层结构组成（他在图书馆，他在看书），两个“在”音同意，在表层合并。但合并程序说法不同：

（4）A、他在图书馆在看书 B、他在在图书馆看书

汉族儿童、汉语二语学习者都有以下句子，证明合并说有理据：A 可信度高一些：

（5）a. 他在厕所里在刷牙。 b. 他在桌在上看书。

四、跟历史发展中的目标语对比

中介语语料中会出现以下句子：

（6）*他小的时候经常被人骂他。（美，中二）

被动句宾语复指受事主语。这类句式在学生母语中没有，但在汉语发展中有：

（7）扬奉言侯成盗其马，被侯成杀了扬奉。（《三国志平话》）

这跟语言发展的普遍性相关。被动句从主动句发展而来。发展中出现一个主动句、被动句杂糅的阶段，符合语言发展规律。此句式从出现到消失，在汉语发展中经历几个世纪（现在某些方言里也偶有发现）。但在二语学习个体的中介语里，只需要一两个月。

六、跟目标语方言的对比

中介语和汉语方言中会出现同样类型的句子：

（8）a.*我们坐着在草地上。 b. 车停在在那在。（江西沙溪话）

（9）a.*本书不见在了。 b. 本书冇咗。（粤方言）

持续体标记后用“在”介词结构，量词直接修饰名词（语法作用近似英语定冠词），这些并非二语者从汉语方言中获得。说明此句式符合人类普遍的认知机制。

结 语

中介语研究应开展多角度、多层面、多路径、多方向的系统对比。

中介语跟目标语不同的现象，可能符合人类认知规则，反映语言普遍性，折射中介语跟其他语言相似的共时特征和历时过程。此类现象越多，说明目标语此类语言点的学习难度越高。我们应关注此类语言点，研究目标语相关规则的习得机制，和有效的教学方法。

Testing implicit and explicit knowledge in second language acquisition: an empirical study about tense-aspect processing in L2 Chinese

Yanyu Guo

University of Cambridge

In recent L2 studies (e.g., Ellis R. et al. 2006, Hulstijn 2005, and Roberts & Liszka 2013), researchers tend to explore the types of knowledge (i.e. implicit and explicit knowledge) that participants tap into when they do different tests. Experimental tasks such as off-line acceptability judgment tasks are typically considered conducive to testing and measuring explicit knowledge (e.g., R. Ellis 2005, Tokowicz & MacWhinney 2005). On the other hand, as learners cannot consciously tap into their implicit knowledge, on-line tasks such as self-paced reading tasks (e.g., Roberts & Liszka 2013) are considered appropriate for measuring implicit knowledge.
English offers a consistent, obligatory choice of viewpoints in all tenses (Smith 1997:169). In English imperfective sentences, the auxiliary morpheme -ing conveys progressive meaning and can be used in sentences with all kinds of tenses. However, in Chinese, the progressive marker ZAI and the durative marker ZHE are not compatible with all the tenses, with some restrictions summarized in Table 1.

<table>
<thead>
<tr>
<th>Tense</th>
<th>Chinese Imperfective Markers</th>
<th>English Imperfective Marker</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ZAI</td>
<td>ZHE₁</td>
</tr>
<tr>
<td>Past</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Present</td>
<td>??</td>
<td>√</td>
</tr>
<tr>
<td>Future</td>
<td>??</td>
<td>×</td>
</tr>
</tbody>
</table>

The present study investigated the processing of the tense-aspect mismatches by English adult second language speakers of Mandarin Chinese, and tested explicit knowledge using an untimed acceptability judgment task and implicit knowledge using a self-paced reading task, in an attempt to give a better understanding of how learners use their knowledge in on-and off-line comprehension.

Twenty-five Chinese native speakers and 56 L2 learners from three different proficiency levels (18 beginners, 19 intermediate learners, and 19 advanced learners) participated in this experiment and undertook first a self-paced reading experiment to tap into implicit knowledge and then an off-line acceptability judgment task measuring explicit knowledge.

The AJT results presented clear developmental patterns of L2 learners, which demonstrated some of their explicit knowledge of the mismatches. Beginners seemed not sensitive to the mismatch conditions except for the most typical ones (i.e., PRESENT*Imperfective). Intermediate learners found some difficulties in ZHE₂ but advanced learners performed quite similarly to native speakers. However, the results of SPR, which reflected the L2 learners’ implicit knowledge, in some conditions were in conflict to the AJT results, which could be argued to not have implicit knowledge in Chinese tense/aspect mismatches in these cases.

**Second language learners’ compliment behavior in the L1 and L2**

Yen-Chen Hao  
University of Tennessee

Previous studies have shown that the compliment norms in different languages may differ (Chen, 1993; Yu, 2004), and second language learners’ compliment behaviour often deviates from that of native speakers (Cheng, 2011; Yu, 2004). However, relatively little is known about whether people change their compliment speech when they are using their native (L1) or second language (L2). To address this question, this study examines Chinese ESL (English as a Second Language) speakers’ compliments and compliment responses (CRs) in English and in Chinese. Twenty Chinese ESL speakers completed two questionnaires with identical content, one in English and the other in Chinese. In addition, ten American English speakers completed the English questionnaire. The first part of the questionnaire listed nine scenarios which prompted the participants to give a compliment, while the second part exemplified nine scenarios in which the participants had to respond to a compliment. The nine scenarios were designed to include three interlocutors differing in their relationship to the participant (higher status, equal, lower status) and three topics (appearance, achievement related to both the interlocutor and the participant, and achievement relevant only to one of them). All the possible responses were provided in the questionnaire for the participants to rank according to how likely they would use them. The options for giving compliments included the I-construction (e.g. I like your shirt.), You-construction (e.g. You look good in this shirt.), It-construction (e.g. It is a nice shirt.), indirect compliment (e.g. Where can I buy this shirt?), and No Comment. As for the CRs, the options were prosed to represent the Accept, Deflect, and Reject strategies.

The results from the comparison of Americans and Chinese using English show that the Americans were significantly more likely to use the “I like NP” construction than the Chinese in giving compliments, while the
Chinese preferred focusing on an object (It-construction) rather than on a person (I- or You-construction) in their English compliments. As for the Chinese speakers’ compliments in English and Chinese, their Chinese compliments showed a higher frequency of indirect or no comment than their English ones, reflecting their more reserved attitude when using Chinese. Regarding the CRs, the most commonly selected response was Accept and the least likely response was Reject for all three data sets. However, both the Americans and the Chinese using Chinese were found to reject compliments more often than the Chinese using English, particularly when the topic is on appearance. This is probably because the Chinese ESL speakers tried to imitate the Americans based on some overgeneralized principles and used too little use of the Reject CR. In summary, this study shows that the language in use plays an important role in determining people’s compliment behavior.

Are Mandarin Tones Optimized for Efficient Communication?
Yuan-Lu Chen
University of Arizona

The lexical system of human languages evolves for the optimization of communication pressure: frequent words tend to be shorter (Sigurd et. al. 2004, Piantadosi et al. 2011). Specifically, Piantadosi et al. (2011) argue that cross-linguistically words with less average information content tend to be shorter. For Mandarin Chinese, segmental length is not a possible dimension to accommodate the amount of information content, because most of the morphemes in MC are single syllable with phonotactic restrictions (i.e. no complex onset and only sonorant codas allowed); instead, the super-segmental dimension (i.e. tone) is used. The current paper investigates how the tone system responds to communication pressure. It is expected that the complexity of tones of MC should be optimized just like the length of lexicon of non-tonal languages (Sigurd et. al. 2004). The complexity of tones is defined using the acquisition order found in Li and Thompson (1977), which argue that Tone1 and Tone4 are first acquired and later Tone2 and Tone3. I hypothesized that Tone2 and Tone3 are complex while Tone1 and Tone4 are simple. Along with the assumption of the optimization, the working hypotheses is in (1):

1. Tone2 and Tone3 are less frequent and have low information content. Tone1 and Tone4 are more frequent and have high information content.

A corpus (Glenn and Linguistic Data Consortium 2013) is used to test the hypotheses, which is a news corpus transcribed using MC characters. The characters are converted into tone-annotated pinyin using Pypinyin (2014, January 1). Two factors are focused: a word’s frequency and its average information content, which is defined in Piantadosi et al. (2011):

\[
-\frac{1}{N} \sum_{c=1}^{C} \log P(W = w \mid C = c)
\]

\(w\) is the target words, and \(c\) is the context.

Assuming a bigram-model, if a word is totally predicated by the preceding word of it, the word will not have any information. On the other hand, if the target word is a surprise in that context, the word carries high information content. The finding is NOT consistent with the working hypothesis. The current study found that in MC, Tone1 has the most information content and least frequent; Tone4 has least information content and most frequent. Tone3 and Tone2 are in the middle (log-freq~ tone, ANOVA (F(3,1126) = 6.99, p <.001; log freq~ tone, ANOVA (F(3,1126) = 6.99, p <.001). To see how communication pressure effects the evolution of tonal lexicon, it is required to define the complexity/cost of each tone. This is open for future research.

I.I effect on learning artificial tonal patterns
Sophia Kao
Stony Brook University

In many languages, vowel hiatus is prohibited and resolved by vowel deletion. However, in tonal languages, the deletion of a vowel does not necessarily imply the deletion of its tone. For instance, in Ogori, a Benue-Congo language of Nigeria, the second vowel is always deleted to resolve vowel hiatus at word boundary, but the tone that undergoes deletion is determined by the tone value, regardless of whether it was originally associated
with the surviving or with the deleted vowel, as shown in (1).

<table>
<thead>
<tr>
<th>(1) Noun</th>
<th>Adjective</th>
<th>NP</th>
<th>Gloss</th>
<th>Tone Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. ḥtelč</td>
<td>ḥkeka</td>
<td>ḥtelhkeka</td>
<td>‘big pot’</td>
<td>H#L → H</td>
</tr>
<tr>
<td>b. ṭiğila</td>
<td>oboro</td>
<td>ṭiğilobo</td>
<td>‘good yam’</td>
<td>L#H → H</td>
</tr>
</tbody>
</table>

Since High tone (H) is always retained, it is said to have dominance over Low tone (L) in this language. The fact that H is always retained across languages can be explained by de Lacy's claim that “marked elements are subject to greater preservation than less marked ones (2002, p. 196).” This asymmetry in typology may due to difficulties in perception or production, or some innate learning bias in learning certain patterns. In this study, an artificial grammar learning experiment was conducted with the objective to examine the learnability of the following two tone patterns: a natural pattern that is common cross-linguistically (H#L → H and L#H → H), and an unnatural pattern that seems to be rare across languages (H#L → L and L#H → L).

The experiment was conducted with 94 English speakers and 52 Mandarin Chinese speakers who had no knowledge regarding this tonal pattern. The participants were trained to learn nonsense words with a VCV structure, each associated with a picture of either an animal or a fruit, e.g. [ewe] [H.L] ‘monkey’ or [owu] [H.H] ‘banana’. Participants first heard the sound of the animal and the fruit, and then they were presented with possessive noun phrases, e.g. [ewowu] ‘monkey’s banana’. One group was trained with the natural pattern (H#L→H) and the other group the unnatural pattern (H#L→L). They then carried out a forced choice task where they were tested on novel noun phrases.

The results showed that all participants performed at ceiling on tone identification task. The results showed a learning bias toward the natural tonal pattern for English speakers while the natural and unnatural tone patterns were equally learnable for Mandarin Chinese speakers. However, participants who learned the natural pattern were able to generalize the knowledge to novel forms they were not exposed to during the training block.

This study investigates the learnability of phonological patterns concerning tone, and the ability of extending phonological patterns to novel forms. The results of the Mandarin Chinese speakers support the view of analytic bias (Moreton 2008) that cognitive predispositions may facilitate the learning of tone retention patterns with preference for High tone over Low tone because the learners were more likely to extend natural tone patterns to novel forms.

### Tone Sandhi in Mandarin-English Code-Switching

Wei-fang Hsieh and Yu-an Lu
National Chiao Tung University

This study investigates the tone 3 sandhi and the idiosyncratic tone 4 sandhi of yi (“one”) and bu (“no”) in Mandarin-English code-switching. There are different views toward whether Mandarin tone sandhis are processed in categorical fashion or gradient fashion. On the one hand, T3 sandhi is described as being replaced by a T2 when preceding another T3 (e.g., Chao 1948, Lin 2007) and the two morphemes yi and bu as undergoing tonal change from T4 to T2 (e.g., Lin 2007), supporting the categorical view. A study on T3 and yi sandhis in Myers and Tsay (2003) also supports the same view. On the other hand, the T3 sandhi, having a less clear phonetic motivation, is found to apply in Mandarin Chinese incompletely in pseudo words, thus supporting the gradient view of T3 sandhi (e.g., Zhang and Lai 2010). In this study, a Mandarin T3 word preceding an English word with an unstressed first syllable is used to trigger T3 sandhi since it is well-established that in loanword adaptation, unstressed syllables usually map to T3 (Wu C. 2006) while yi/bu preceding a mono-syllabic word is used to trigger T4 sandhi since the H*L% intonation on single-syllable words mimics Mandarin T4 (Wu H. 2006). Questions raised are (i) how are tonal change processed by Taiwanese Mandarin speakers when code-switching between Mandarin and English, (ii) whether the lexicality (real or
pseudo) of English has an effect on the application of tonal change, and (iii) whether the phonological T3 sandhi and the morpho-phonological T4 sandhi demonstrate different sandhi patterns. Also, Mandarin has stricter constraints on syllable structure. We ask further how tone sandhis are applied when the English word contains onsets of different combination.

A production experiment was conducted in which four native speakers of Taiwanese Mandarin participated (2M, 2F; aged 20-24). Participants were asked to produce the following stimuli in a carrier sentence wo3 nian4 gei3 ni3 ting1 (“I say ____ for you to hear”: hao3 (“good”) and hen3 (“very”) followed by disyllabic English words with stress on either the first or the second syllable, and yi4 and bu4 followed by monosyllabic words with different onset combinations (C, CC, CCC) or disyllabic words. If speakers apply tone sandhi when code-switching, it is expected that T3 sandhi applies when preceding English words with unstressed first syllable and T4 sandhi of yi and bu applies when preceding monosyllabic words. And as Mandarin has a stricter requirement on syllable shape, T4 sandhi is expected to be less complete when preceding monosyllabic words with complex onset since vowel insertion as a repair is possible (e.g., Miao 2005). It is also predicted that tones preceding English lexical words would have more complete tone sandhi than those preceding English pseudo words (Zhang & Lai).

F0 values were extracted and measured every 10% of the rhyme. The results showed that tonal change in code-switch production patterns differently from non-code-switching (non-CS) production (Figure 1). Comparing to the non-CS Mandarin baselines, we found incomplete application of T3 sandhi in that T3 before words with unstressed first syllable has a greater tonal adjustment. The result supports the gradient view of Mandarin T3 sandhi. Lexicality, however, does not show any effect on T3 sandhi. Similarly, the idiosyncratic yi/bu T4 sandhi only occurs in non-CS baseline production. In CS contexts, we found greater tone adjustment when preceding monosyllabic words with simple onset compared to those with complex onset, suggesting an effect of onset type (Figure 2). Contrary to our findings for T3 sandhi, lexicality does have an effect here. The yi/bu T4 sandhi is processed more in line with the gradient view when preceding English lexical words, and more in line with the categorical view when preceding English pseudo words. This suggests that Mandarin speakers might apply more of their native language knowledge in the production of Mandarin+English-pseudo combination than that of the Mandarin+English-lexical combination. Also, the difference of lexicality effect on T3 sandhi and on the yi/bu T4 sandhi suggests that the native knowledge of idiosyncrasy plays a more crucial role in the application of tone sandhi when code-switching.

Figure 1. Pitch contour of T3 in CS and non-CS contexts  
Figure 2. Pitch contour of T4 yi/bu in CS and non-CS contexts

Genre variation, corpus linguistics, and Chinese language teaching
Hongyin Tao  
University of California, Los Angeles

Features of discourse genres or registers and their relevance to understanding the nature of language have been the focus of much recent discourse functional linguistic research (e.g. Tao 1999). This research has been aided tremendously in the past few decades with advancements in corpus linguistics (see McEnery, Xiao, and Tono 2006). However, register or genre based Chinese language teaching has rarely been explored and practiced in a systematic manner.

In this presentation, I will first discuss important findings in discourse analysis and corpus linguistics on Chinese with regard to genre or register differences. I will focus on two types of findings: a) large scale findings regarding vocabulary, grammar, style, and the character writing system, and b) individual differences regarding a wide
range of items as classifiers, disposal construction, passive constructions, and various conjunctions.

On the basis of corpus-based research findings, I will then move on to specific examples showing how a register-based curriculum can be implemented in Chinese language teaching, covering both advanced and lower levels of Chinese language proficiency. This part of the presentation will primarily focus on lexical teaching. I will show that genre differences in the vocabulary can be taught with input from corpora and other authentic materials.

**Text-setting of Mandarin Tone in Children’s Song: A corpus Analysis**

Wang-Chen Ling  
National Chengchi University

This paper examines the text-setting of Mandarin children’s song (Li 2007) and discusses how Mandarin tone is reconciled with musical melody. According to Sun (1988), the musical pitch of two adjacent Mandarin syllables should follow the principle in (1), so that listeners can understand lyrics. In (1), the four tone categories in Mandarin are followed by their numerical tone notations (Chao 1930).

1. **Musical Pitch:**  
   
   The major findings of the present study are shown below. First, 72% of pairs of syllables follow the principle in (1) within an intonational phrase (IP). However, 77% of pairs of syllables conforms to (1) within a foot (Ft), which indicates that Mandarin tone has a stronger influence on the melodies within a foot. As shown in (2), the musical pitch of nie is lower than yi, which violates (1) within an IP. However, when examined within the foot domain, nie and yi belongs to different feet so they do not have to follow (1). Moreover, zai and nie do not form any syntactic structure but still form a foot whose tonal melody matches musical melody. This supports the indirect method, which shows the need for a distinct level between syntax and phonology, the prosodic level.

2. **Musical Pitch:**  
   
   Second, the musical pitch of a neutral-toned syllable is lower than its adjacent syllable within a foot. 84% of the neutral-toned syllables are set to lower musical pitches than their adjacent syllables. As exemplified in (3), the neutral-toned zi occurs in an unstressed short syllable which is toneless underlyingly (Duangmu 2000:242). The neutral tone surfaces with a default low tone. When set to music, its musical pitch is lower showing that the linguistic tone is preserved in song.

3. **Musical Pitch:**  
   
   Third, Mandarin Chinese changes Shang (214) to Yang Ping (35) before another Shang. In the present corpus, 100% of this tone sandhi form matches the musical melody within a foot. As shown in (4), the underlying tone of yao is 214 which changes to 35 before another 214. Yao is then set to a rising melody which has higher musical pitches then wo.

4. **Musical Pitch:**  

   This study shows that there is variation in Mandarin children’s song text-setting. In other words, the musical pitch does not always correspond to language tone. However, musical melody is largely influenced by Mandarin tone especially within the foot domain. The neutral tone and the Shang tone sandhi show that the musical melody conforms to the surface forms of Mandarin tone. The conformity of language and music in Mandarin Children’s song suggest that it is an appropriate teaching material for both L1 and L2 learners of Mandarin Chinese.
Is China Entering WTO or 世界贸易组织
--A Corpus-based Study of English Acronyms in Chinese Newspaper
Hai Hu
Indiana University Bloomington

In recent years, there has been a discussion in China about whether commonly used English borrowings (e.g. WTO, GDP) should be allowed in Chinese texts (Hu 2002; Yu & Zhu 2003; among others). Despite the intensifying debate on “Englishization” and the “purity of Chinese”, few studies have systematically investigated the type and degree of direct English borrowing into Chinese. In this study, using corpora from newspaper sources, I attempt to answer the following questions: 1) for all instances of a foreign concept (e.g. World Trade Organization), what percentage of it is expressed in English (WTO), and in Chinese (世界贸易组织), and 2) what factors are at play in language users’ choice between the English and Chinese terms? This study uses two datasets to calculate the exact percentage of English usage for every concept, and linear models to quantitatively determine the role of possible predictors.

Ten concepts (WTO, CEO, etc.) are examined in the first dataset, which consists of three Chinese newspapers from year 2005 to 2014. Table 1 illustrates the percentage of English borrowings for four concepts from one newspaper, Southern Metropolis Daily (南方都市报).

<table>
<thead>
<tr>
<th>Concept</th>
<th>Dependent Variable</th>
<th>Predictor 1:</th>
<th>Predictor 2:</th>
<th>Predictor 3:</th>
</tr>
</thead>
<tbody>
<tr>
<td>WTO</td>
<td>PercentOfEng</td>
<td>“entrenchment”: frequency</td>
<td>“lg economy”: NumOfChar in CHN</td>
<td>“first appearance”</td>
</tr>
<tr>
<td>CEO</td>
<td>68%</td>
<td>9717</td>
<td>5 (首席执行官)</td>
<td>CHN=EN</td>
</tr>
<tr>
<td>CPI</td>
<td>95%</td>
<td>19257</td>
<td>8 (居民消费价格指数)</td>
<td>CHN</td>
</tr>
<tr>
<td>EMBA</td>
<td>97%</td>
<td>2293</td>
<td>12 (高级管理人员工商管理硕士)</td>
<td>EN</td>
</tr>
</tbody>
</table>

Table 1: Four concepts from the newspaper Southern Metropolis Daily

Three factors in Table 1 are hypothesized to predict the percentage of English borrowings in a linear mixed-effects model (following Zenner et al. 2014). The level of “entrenchment”, operationalized as the frequency of the concept in the corpora (English and Chinese taken together), predicts that the more entrenched a concept is, the more likely it will be used in the native form (i.e. Chinese). “Language economy”, operationalized as the number of characters in the Chinese translation, predicts that the more concise the Chinese translation is, the more likely the Chinese form will be used. “First appearance” notes which of the two terms appeared first in Chinese newspapers, the prediction being that if the English term appeared earlier than its Chinese counterpart, a higher PercentOfEng would be expected.

The results of the first dataset show that different concepts have a varying PercentOfEng, ranging from 2% to 98%. One unexpected but interesting finding is that proper nouns (e.g. WTO, OPEC and IMF) all have a lower PercentOfEng. Crucially, the linear mixed-effects model demonstrates that the three predictors can predict PercentOfEng in the first dataset (all p < .05), confirming the hypothesis. That is, how much English is used for one concept can be predicted by 1) how often the concept occurs, 2) how long the Chinese translation is, and 3) whether the English or Chinese form first appeared in the newspaper.

In order to confirm the results, a second dataset with 31 concepts was used. This dataset contains news articles of Xinhua News Agency, obtained through the CCL corpus of Peking University. A multiple linear regression shows that the same three predictors can also predict the PercentOfEng (all p < .05).

In sum, not all concepts have a very high percentage of English borrowings. Language users choose the English term either because the Chinese translation is too long, or because the concept is not yet well entrenched in the Chinese lexicon, i.e. it may still need more time to “settle in”. This result demonstrates the process of acceptance of new concepts into a language, and how loanwords and the native terms are competing for acceptance. It also predicts that with deeper entrenchment and the newly created shorter translations (such as 美职篮 for NBA), some Chinese terms are likely to win out in the future.
Are all verbs acquired in the same ways?
The comparison between action and adjectival verbs in Mandarin Chinese
Margaret Yeh & Letitia Naigles
University of Connecticut

The distinction between adjectives and verbs in Mandarin Chinese is not as clear as that in English. Adjectives in Mandarin share more similarities than differences with verbs, and most of them may function as verbs. Thus, they are termed adjectival verbs, which are translated into adjectives in English (e.g., zhe4hai2zhi cong1ming2, ‘this kid smart’)

Previous studies on Mandarin learners’ early vocabulary have focused on action verbs. Little research has explored whether action and adjectival verbs are acquired similarly or differently. Drawing from properties shared with vs. distinguished from action verbs, the current study investigated (a) whether mothers show any difference in their action and adjectival verb uses, (b) when children acquire the distinctive uses of action and adjectival verbs, and (c) whether maternal and child usage is correlated.

We analyzed the spontaneous speech of 40 mother-child dyads from the CHILDES/Zhou corpus; ten dyads in each of four age groups: 14-, 20-, 26-, and 32-month-olds. Their single-verb utterances that contained action and adjectival verbs were identified and coded for Similar properties: (1) SV, (2) Verb alone, (3) Negation used, (4) appearing as V-not-V, (5) following Auxiliary, (6) used as Imperatives, (7) modified by Temporal/Locative/Scope Adverbs, (8) co-occurring with Aspect markers/Complements, and for Distinguishing properties (i) Degree Adverbs to modify adjectival verbs only (e.g., hen3 ‘very’), and (ii) Reduplication form (i.e., AABB for adjectival verbs; in contrast to ABAB for action verbs). Frequencies were counted for distribution.

Similarities and differences were found in maternal action and adjectival verb uses. Both types of verbs appeared in the SV and Verb-alone frames. However, action verbs appeared as Imperatives and with Complements more frequently while adjectival verbs were modified by Degree adverbs exclusively. Similar patterns were observed in child action and adjectival verb uses; frequent properties in maternal input tended to appear earlier and more frequently later in child production. The notable exception is Imperatives, which did not reflect input frequency.

Correlation analyses were conducted to test the relation between mother and children for each property (the older two groups only). Significant relations were found only in the SV frame in adjectival verb uses ($r = .689, p < .05$) and Negation in action verb uses ($r = .454, p < .05$).

Although adjectives and verbs in Mandarin Chinese may behave alike in many ways, they were more likely to appear with different properties to distinguish each other, making themselves distinctive categories. Mothers’ verb uses provided the information that indicates both similarities and differences between adjectives and verbs. Children were sensitive to such property-revealing information when learning verbs. Frequency effects were evident in Mandarin verb learning. However, other factors, like pragmatic reasons, may play a role in determining the frequency of a property in Mandarin verb uses.

Rethink Chinese Relative Clauses: A Non-movement Parametric Analysis
Amy Fang-Yen HSIEH
The University of Mississippi

It has been claimed that movement does exist in Chinese relativization and that Chinese relative clauses (RC) are derived via both movement and bare phrase generation (Aoun & Li, 2003; Hung, Li, & Li, 2009). However, the examination methods for the movement analysis, including ‘reconstruction effect’ tests and subjeacy/island effect tests have been challenged (Yang, 2008). In addition, the existence of Chinese RCs with two “gaps”, as shown in (1), and the existence of the so-called “gap-less” RCs in Chinese in (2) can be regarded as the evidence against the movement analysis. If Chinese RCs are derived via movement, both types of sentence should be ungrammatical.

(1) [RC zuotian e1 piping e2 de] ren e3 dou meiyou lai
yesterday criticise DE people all not come
‘the people who criticised yesterday did not come’ /‘the people who(m) were criticised yesterday did not come’

(2) zhe jiu shi [[ta kao-shi de] jieguo].
this exactly be  he take-exam DE result
‘This is the result of his exam-taking’

Comrie (2002) proposes that the putative RCs in Japanese are general ‘noun-modifying’ clauses without movement. In line with this approach, I propose that Chinese RCs are derived from merge, not movement. In this analysis, de heads an nP (Zhang, 1999). The derivation process is the same as what Adger and Ramchand (2005) propose for Modern Irish. De bears an interpretable [Λ] feature which forces variable creation. De is the head of nP lacking uninterpretable ID features; that is, it would just be [Λ]. Therefore, it can occur with a pronoun specified as [ID: φ] and it has been seen that some Chinese RCs do contain a resumptive pronoun, such as (3).

(3) [RC ni xie-xin gei *(ta) [ID: φ]] de [Λ] nanhai →  
  you write-letter for him DE boy
  ‘the boy who you wrote a letter to’

With regard to RCs without a resumptive pronoun, there is a pro. Since Chinese is a pro-drop language, it can be argued that the pro in Chinese do bear φ features for interpretation. Unlike most of the European languages, φ features assigned on a Chinese pro is not realised by inflections; instead, it is realised by context, as Chinese lacks inflections. Therefore, it can be argued that the pro in Chinese RCs also bears φ features. In summary, the structure of Chinese RCs can be illustrated in (4).

(4) [DP Na [CIP ge [IP wo xihuan pro [ID: φ]] [s de [Λ]] [NP nanhai]]]  
  that CL I like DE boy
  ‘the boy who I like’

Ordering of modal auxiliaries and non-auxiliaries in Mandarin
Chong Zhang
Stony Brook University

Nauze (2008) claims that languages in a variety of families (Dutch, Fon cluster, Korean, Lilooet, Turkish and Tuvaluan) exhibit the same restriction on modal ordering: epistemic always semantically scopes over root. However, he analyzed the scoping effect in different grammatical categories, but a clearer case is to study a language that has multiple modals occurring in the same grammatical category. In this paper I investigate Mandarin that has a double modal auxiliary verb construction (DMC), as well as constructions with modal auxiliaries combined with non-auxiliaries, to discuss the ordering restrictions on modals.

Surveying the corpus (Corpus of Contemporary Chinese, 2004), contrary to Nauze’s generalization, it is common to find Mandarin sentences containing two modals with inverse semantic scopes:

(1) **Epistemic >> Root (deontic)**  
  Ta keneng bixu mai naben shu.  
  he might must buy that-CL book
  “It’s possible that he must buy the book.”

(2) **Root (deontic) >> Epistemic**  
  Xitong bixu you keneng baokuo xuniren.  
  system must have possibility include avatar
  “The system must have the possibility to include avatars.”

These examples also contain different modal grammatical categories: (1) seems to have two auxiliaries; (2) has one auxiliary and one modal noun. Crucially, since Mandarin lacks overt inflectional morphology, establishing the existence of DMC is non-trivial. To show the existence of Mandarin DMC, I adopted Ren (2008): since modals in question can occur only with a main verb, be used in A-not-A questions, negated by bu (“not”), license ellipsis, and cannot take a direct object or aspectual markers, they are modal auxiliaries. Applying these tests to (1) above allows me to reach the conclusion that Mandarin has DMC.

Then the question under investigation is why the Cinquean ordering of epistemic modals preceding root modals is only restricted to auxiliaries in Mandarin, but not non-auxiliaries. To answer it, I adopt Hacquard (2013a), which follows Kratzerian fashion (1991) assuming modals are lexically unspecified for flavors, and treats modal auxiliaries as quantifiers over possible worlds. But unlike Kratzer who derives modal flavors from modal bases f and ordering sources g, Hacquard proposes that modals are **event-relative**, which means modal bases and ordering sources are determined relative to an event e, rather than a world of evaluation. The type of modal base a modal auxiliary gets is determined by the type of event it anchors to. To be more specific, epistemic modals are anchored to TP-level modality and root modals are anchored to VP-level modality. Following Hacquard (3-4) is obtained:
江西云楼方言的“V+得+V₂”结构

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一 引言

1.1 考察对象

江西吉安县云楼方言属赣方言吉莲片。当一般动词与趋向动词组合时必须在中间插入“得”结构。如：拿得来 | 寄得去 | 放得进去 | 行得出来

本文讨论“一般动词+得+趋向动词”所构成的句法组合，简称为“V得D”结构。云楼方言中构成趋向动词的成员如下：

<table>
<thead>
<tr>
<th>客观参照</th>
<th>进</th>
<th>出</th>
<th>上</th>
<th>下</th>
<th>归（回）</th>
<th>过</th>
<th>起</th>
<th>开</th>
</tr>
</thead>
<tbody>
<tr>
<td>主观参照</td>
<td>来</td>
<td>去</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.2 “VXD”结构中，“X”性质的各种解释

(一) 刘坚等（1992）动态助词说；(二) 徐丹（1994）完成体标记说；(三) 江蓝生（1994）介词“到”说；(四) 柯理思（2005）体标记说。

二 “V得D” 的结构类型及语义特征

云楼方言里“V得D” 的结构具体归纳如下表（语义特征略）：

<table>
<thead>
<tr>
<th>V得D</th>
<th>“V得D”与施所宾语组合</th>
<th>“V得D”与受宾语组合</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>V+得+D₁</td>
<td>V+得+D₁+NL</td>
</tr>
<tr>
<td>2</td>
<td>V+得+D₁</td>
<td>V+得+NL+D₁</td>
</tr>
<tr>
<td>3</td>
<td>V+D₁+得+D₂</td>
<td>V+D₁+得+NL+D₂</td>
</tr>
<tr>
<td>4</td>
<td>V+D₁+得+D₂</td>
<td>V+D₁+得+NL+D₂</td>
</tr>
<tr>
<td>5</td>
<td>V+C+得+D₁</td>
<td>V+C+得+NL+D₂</td>
</tr>
<tr>
<td>6</td>
<td>V₁+得+D₂</td>
<td>V₁+得+D₁+NL+V₂</td>
</tr>
<tr>
<td>7</td>
<td>V+得+D₁</td>
<td>V+得+NL+D₂</td>
</tr>
</tbody>
</table>

三 “V得D” 结构中“得”的性质
“得” 的虚化过程可以如下图所示:

V 得（得到、达到） 结果补语

- 动作的持续进行（持续体标记）
- 动作的实现或完成（完成体标记）
- 指明动作所及，引出动作的处所（介词）
- 引出动作的动向（趋向补语标记）

云楼方言 “V 得 D” 结构中 “得” 的性质，根据前后组合对象的不同而不同：可以是持续体标记，也可以是引介处所的介词以及趋向补语标记。这体现了 “得” 共时多功能性的语法特征。从共时平面看，“V 得 D” 结构中，“得” 的语法意义常常不是单一的而是综合的，这就造成了同一结构的多义性。在多种义性中，“得” 的性质需要仔细分析。例如，“V 得 D” 可以有多种不同的语义理解：既可以表示趋向补语结构，也可以表示偏正结构。此时 “得” 性质不同：分别是趋向补语标记（结构助词）和持续体标记。

云楼方言 “V 得 D” 结构的来源

江西云楼方言中活跃的 “V 得 D” 格式正是历史语法格式的一脉相承。在云楼方言中，“V 得 D” 结构仍完整地保留，并反映在上述各种句法分布中，是近代汉语 “V+得+V 趋” 格式在现代方言中的区域保留。

三音節式重疊結構的句法、語義及韻律分析

黃新駿蓉

香港中文大學中國語言及文學系

重疊是漢語構詞造句的常見手段，尤其是雙音式重疊和以雙音節為基式的四字重疊最為普遍。漢語中還有一類十分顯著卻鮮有研究的重疊形式，即由單音節詞組成的三音節式重疊結構（以下統稱 “三疊式”）。這種結構多見於口語，於書面語也多出現在人物對話當中。這種三疊式 “XXX” 有其特殊的句法語義功能和內在韻律要求。

在構成三疊式 “XXX” 的單音節成份中，最能產的當屬動作類動詞（打打打），其次是形容詞（快快快），還有一些名詞（錢錢錢）、副詞（不不不）、代詞（他他他）、擬聲詞（咚咚咚）和嘆詞（喂喂喂）。

在句法分佈上，三疊式大都是可以獨立成句的，有的則可在句中做狀語、定語、述語等成分，並表達陳述、指稱、修飾的不同功能（方寅、段業輝，2015）。

語義功能上，三疊式有的是實際動作、事物、聲響等的連續、增量、反覆，有的則是心理情感上程度的增加。據此，本文將三疊式 “XXX” 分為以下幾類，并論證這幾個分類跟不同詞類之間的關係。

[1] 複量類。三疊式最基本的語義功能，表動作的重複、狀態的持續、聲音的複現等。

（1）4 號道格就是整天只知道不停地吃吃吃的一個大飯桶。

[2] 話題類。通常出現在句首，做整個句子的話題，具有引語的性質。這一類便與劉丹青（2009）提出的 “重疊式話題” 異曲同工，其後的述題大都是負面評論。

（2）吃吃吃，就知道吃！

[3] 祈使類。這一類是帶有急切、催促意味的祈使，即通過形式上量的增加來加強所要表達的情緒、語氣。

（3）吃吃吃，別客氣。

[4] 應答類。出現在對話當中，帶有急切意味。

（4）問：是這個嗎？答：對對對！就是這個。

在韻律上，三疊式 “XXX” 也有其顯著不同於其他結構的表現。為此，本文進行了語感實驗和語音實驗。三疊式是由三個時長幾乎相等、結構緊密的單音節成分連綿而成，並作為一個整體表達相應的功能。且在表達複量、話題、祈使和應答的語境下，單音節、雙音節和四音節的形式都因為韻律干擾而被放棄，三疊式則通過縮短單字時長與總時長，消除作為超音步結構所帶來的非顯著性，從而成為最優選擇。且在韻律特徵上，又與音樂領域呈現明快節奏的 “三連音” 相似。而這種三疊式結構並不獨立存在於漢語當中，究其原因，可
能與“前語言韻律（pure prosody）”有關。所謂前語言韻律，就是人類語言產生之前的韻律。就如音樂是人類共通的語言，三疊式“XXX”的韻律無論是在音樂領域還是在語言領域，都與其所承載的功能相連。

本文認為，三疊式由詞法產生。通過形式上的三次重疊來描摹事物、動作、聲音的重複出現，動作或性質狀態持續以及情緒的攀升。在祈使、應答類中，再通過語速的附加，增添了急切催促的意味。而三疊式的韻律要求也限制了這種格式的准入條件。

An empirical study of the lexicalization of state change in Mandarin monomorphemic verbs
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Languages vary systematically in how semantic information is “packaged” in verbs and verb-related constructions (Levin & Rappaport Hovav, 1995; Pinker, 1989; Talmy, 1985, 2000). Mandarin contrasts typologically with English in its lexicalization of state change. The majority of Mandarin monomorphemic verbs is moot about or only implies a state change, whereas English has many monomorphemic verbs (e.g., kill, break) that entail the fulfillment of a state change (Talmy, 2000). For example, it is probably felicitous to say in Mandarin he killed the chicken, but it didn’t die as the Mandarin counterpart of the English verb kill only implies a state change of death and this implicature can be canceled.

This study investigates if and how the state-change implicature is instantiated in Mandarin monomorphemic verbs by native speakers of Mandarin. An experiment was conducted to elicit native adult Mandarin speakers’ semantic knowledge about the strength of the state-change implicature in monomorphemic Mandarin verbs. 84 native speakers of Mandarin (age range 19-21 years) participated in an online rating (using a 5-point Likert scale) task about the acceptance of 16 sentences that expressed the failure of the attainment of the state-change implicature of a target verb (e.g. ta sha le ji, ke shi ji mei si ‘he killed the chicken, but it didn’t die’). ANOVA analysis reveals a significant difference among different target verbs on the acceptance rate of such sentences (F=21.37, p < .000), and post hoc comparisons show a continuum of state-change implicatures in the target verbs (e.g. verbs such as guan ‘do.closing.action’, zhai ‘do.picking.action’ and sha ‘do.killing.action’ were less likely to be accepted with a failed realization of the state-change implicature in comparison to verbs such as bai ‘break.by.bending’, qie ‘cut’, zhu ‘cook’).

This study is the first to empirically show the nuanced state-change implicatures and the existence of such a continuum among Mandarin monomorphemic verbs. The finding corroborates Talmy’s (2000) proposal that English implied-fulfillment verbs follow a cline in the strength of the state-change implicature. This study further suggests a typological implicational hierarchy in the event representation of state change crosslinguistically.

方言历史比较与古音研究
——从闽方言看上古音流音声母演化的例证
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上海师范大学语言研究所 华盛顿大学亚洲语文系

罗杰瑞（2005）对闽方言中来母的读音提出了一种构拟方案：

<table>
<thead>
<tr>
<th>共同闽语</th>
<th>*l-&gt;t/-l-</th>
<th>共同闽语</th>
<th>*lh-&gt;s-</th>
</tr>
</thead>
</table>

利用比较证据，他将闽语与中国南方的苗瑶、壮侗语族中的早期汉语借词联系起来，并建立起了规律性的对应关系：

<table>
<thead>
<tr>
<th>原始苗瑶、原始侗台</th>
<th>共同闽语</th>
<th>闽北</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>C 清辅音 l/</em> C 清辅音 l-</td>
<td>*lh</td>
<td>s</td>
</tr>
<tr>
<td><em>C 浊辅音 l/</em> C 浊辅音 l-</td>
<td>*l</td>
<td>l</td>
</tr>
</tbody>
</table>

以此构拟为出发点，本文讨论两个在三国两晋时期出现于古吴方言的语言文字用例，通过揭示其音韵变
化了的轨迹，展示中原通语和原始吴闽方言之间的相互关系。第一个例子是三国吴《硕人》镜铭的通假问题：

<table>
<thead>
<tr>
<th>镜铭</th>
<th>中古声母</th>
<th>毛诗</th>
<th>中古声母</th>
</tr>
</thead>
<tbody>
<tr>
<td>夷（侯）</td>
<td>以母</td>
<td>齐（侯）</td>
<td>从母</td>
</tr>
<tr>
<td>（狩）夷</td>
<td>以母</td>
<td>（OTES蛇）</td>
<td>从母</td>
</tr>
<tr>
<td>（濡）渎</td>
<td>津母</td>
<td>（柔）夷</td>
<td>定母</td>
</tr>
</tbody>
</table>

在现代闽语的白读层次中，以母还有保留擦音和塞擦音的读法：

<table>
<thead>
<tr>
<th>白读层次</th>
<th>白读类型</th>
<th>白读层次</th>
<th>白读类型</th>
</tr>
</thead>
<tbody>
<tr>
<td>福清</td>
<td>si5</td>
<td>古田</td>
<td>si5</td>
</tr>
<tr>
<td>漳州</td>
<td>sin5</td>
<td>石陂</td>
<td>sin5</td>
</tr>
<tr>
<td>建阳</td>
<td>sit8</td>
<td>建瓯</td>
<td>sit8</td>
</tr>
<tr>
<td>建阳</td>
<td>ts5iü5</td>
<td>ts5i5</td>
<td>ts5i5</td>
</tr>
<tr>
<td>泉州</td>
<td>ts5i6</td>
<td>邵武</td>
<td>ts5i6</td>
</tr>
<tr>
<td>泉州</td>
<td>ts5i7</td>
<td>邵武</td>
<td>ts5i7</td>
</tr>
<tr>
<td>古田</td>
<td>si5</td>
<td>泉州</td>
<td>si5</td>
</tr>
<tr>
<td>古田</td>
<td>si7</td>
<td>泉州</td>
<td>si7</td>
</tr>
<tr>
<td>漳州</td>
<td>ts5i5</td>
<td>漳州</td>
<td>ts5i5</td>
</tr>
<tr>
<td>漳州</td>
<td>ts5i7</td>
<td>漳州</td>
<td>ts5i7</td>
</tr>
<tr>
<td>福清</td>
<td>si5</td>
<td>福清</td>
<td>si5</td>
</tr>
<tr>
<td>福清</td>
<td>si7</td>
<td>福清</td>
<td>si7</td>
</tr>
</tbody>
</table>

如果分析这两组字的上古声韵系列，就会发现很有意思的分别。基本上塞擦音组的声韵系列中，都是与齿音相谐；而齿音组的声韵系列中则会出现牙音、喉音和唇音。闽语以母白读的分层现象与汉语通语时代的复辅音类型相关，说明以母白读分化的时间至少应当在上古晚期，那么在时代上也与硕人吴镜相近。在三国吴地方言中“夷”假读为“读”，可以通过方言的历史比较得到合理的解释。

第二个例子是讨论现代闽语中的“亲”与《世说新语·排调》中所记载王导所言的东晋吴语“亲”。这个词很可能与通语中的“冷”系出一源。根据Baxter & Sargart（2014）的构拟原则，“冷”和“亲”的语音区别主要是二等属于咽化音节，而三等属于普通音节，其语音形式可分别构拟为：

<table>
<thead>
<tr>
<th>语音形式</th>
<th>二等</th>
<th>三等</th>
</tr>
</thead>
<tbody>
<tr>
<td>冷</td>
<td>*C. raŋ</td>
<td>*C. ran</td>
</tr>
<tr>
<td>亲</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

在闽南方言中，来母白读有少数字读齿音塞音或塞擦音，较为特殊。

<table>
<thead>
<tr>
<th>白读层次</th>
<th>白读类型</th>
<th>白读层次</th>
<th>白读类型</th>
</tr>
</thead>
<tbody>
<tr>
<td>泉州</td>
<td>tʰai</td>
<td>古田</td>
<td>tsʰak</td>
</tr>
<tr>
<td>漳州</td>
<td>tʰai</td>
<td>三等</td>
<td>tʰian</td>
</tr>
<tr>
<td>漳州</td>
<td>tsʰai</td>
<td>三等</td>
<td>tsʰak</td>
</tr>
</tbody>
</table>

闽南方言来母白读的读音类型与“亲”这个词在闽语中的读音类型分布也非常相似，可以说得上是基本一致：

<table>
<thead>
<tr>
<th>拼音</th>
<th>白读层次</th>
<th>白读层次</th>
<th>白读层次</th>
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<tbody>
<tr>
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<td>tsʰin5</td>
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<td>tsʰen5</td>
<td>泉州</td>
<td>tsʰen5</td>
</tr>
<tr>
<td>tsʰen5</td>
<td>三等</td>
<td>tsʰen5</td>
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<td>三等</td>
<td>tsʰen5</td>
<td>三等</td>
<td>tsʰen5</td>
</tr>
</tbody>
</table>

如果我们再比较闽语当中中古音初母字的读音类型，大致就能够肯定闽南方言中来母白读实际就是混进了初母。

来母白读混入初母，在闽北以外的方言片中暂时找不到规则上龃龉轩轾之处，但在闽北方言中，共同闽语的*lh*应当按照规则变为s声母，而闽北的来母白读当中又没有ts的类型。不过，如果比对“冷”在通语当中继续保留来母的现象，在二等韵母音节之前，共同闽语的流音声母也可能会继续保留流音，而不变为擦音声母，并最终与二等声母初母合并。

Onset and tonal effects on perceived vowel duration

Yi-ling Chang (張懿玲) & Yu-an Lu (盧郁安)

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The shape of pitch contours has been shown to have an influence on the perceived duration of vowels (Gussenhoven & Zhou, 2013). In a perceptual study in which Dutch and Chinese listeners were asked to rate the length...
of vowels with various pitch (i.e., LL, HH, HL, LH, HLH, LHL), onset (i.e., p, pʰ), and duration steps (i.e., 230, 260, 290, 320ms), Gussenhoven & Zhou (2013) show that production data and perception data are each other’s opposites for non-complex dynamic pitch contours in that LL, being longer than HH in production, was perceived shorter. The results are consistent with a compensatory listening strategy in which the different length perceptions are due to a perceptual compensation of articulatory strategies and constraints (Gussenhoven 2007). Additionally, different duration steps and onset were shown to have a stronger effect on Chinese than on Dutch participants, suggesting an effect of native language (tone vs. stress language; aspiration being contrastive in Chinese but not in Dutch) on speakers’ perception.

Following up on these previous studies, we conducted an AX perceptual experiment using disyllabic structures (i.e., meCV) in which the target vowel ([a] and [i]) is embedded in the second syllable. Four duration steps were created on each of the target vowels to combine with 4 consonants, [p], [pʰ], [b], [m], and each of the combination carried 5 pitch contours (LL, HH, HL, LH, HLH), resulting in 160 test stimuli (2 vowels x 4 duration steps x 4 consonants x 5 contours = 160), (e.g., [mepa], [mepʰa], [meba], [mema], [mepi], [mepʰi], [mebi], [memi].) Another anchor stimulus was created with a fixed vowel duration (275ms) and pitch (195Hz). The anchor vowel served as the A stimuli and the 160 test stimuli served as X in this AX experiment. 6 Taiwanese Southern Min (TSM) and 6 Mandarin speakers were recruited to participate in the experiment in which they were told to listen to pairs of meaningless words and asked to compare the durations of the second vowels and rate them on a 7-point scale, with 7 being the longest, 1 the shortest, and 4 the same. The two groups of speakers were recruited to examine if the tonal inventory has an effect on perceived vowel duration in various pitch contours (Min has 7 tones while Mandarin only has 4).

The results showed effects on DURATION STEP and CONTOUR. In particular, we found a stronger effect of DURATION STEP on the perceived duration from the TSM group (Figure 1), suggesting an effect of the tone inventory size. We also found the perception of LL and HH being the opposite of their production, in that LL was perceived as shorter than HH. Though there was a trend of longer perception on the complex contour than on the level tones, it was not significant (Figure 3). Furthermore, we found a shorter perceived duration on vowels with [b] onset, suggesting that the properties of onset also has an effect on the perception of following vowel duration (Figure 2).

(Left) Figure 1: Interaction between DURATION STEP and LANGUAGE GROUP (Middle) Figure 2: Interaction between CONSONANT and LANGUAGE GROUP (Right) Figure 3: Interaction between CONTOUR and DURATION STEP

**Mandarin Logographic Writing System and Auditory Perceptual Simulation during Silent Reading**
Zhiying Qian, College of Charleston
Kiel Christianson, University of Illinois at Urbana-Champaign

Previous studies show that readers perceptually simulate aspects of speakers’ speech during silent reading. Yao & Scheepers (2011) observed shorter reading times for direct quotes said by a fast talker compared to a slow talker. Stites et al. (2013) similarly observed faster reading of direct quotes when the adverb describing speech rate as fast than when described as slow (e.g. “John walked into the room and said quickly/slowly, “I finally found my car"
These studies suggest that perceptual simulation can be triggered by explicitly describing the speech rate or the talker’s characteristics (e.g. fast vs. slow speakers; native vs. non-native speakers), but leave open the question whether readers can engage in auditory perceptual simulation (APS) when these cues are absent. In the present study, we manipulated the characteristics of the depicted listener rather than the depicted speaker, specifically, whether the listener was a child or an adult, to determine if readers simulate child-directed speech in the absence of information about the speaker or speech rate.

Native Chinese speakers (n=31) read Chinese sentences from one of four lists containing 28 experimental items and 80 fillers while their eye movements were monitored. Experimental items followed a 2 (adultness: child-directed vs. adult-directed speech) x 2 (directness: direct vs. indirect speech) design. Experimental items shared the same template of “somebody said to a child/an adult, followed by a direct/indirect quote” as in: I said to the little boy/the young man who liked drawing, (“)the bridge is very well drawn(“). The stimuli observed Chinese conventions of punctuation for direct quotes, i.e. direct quotes were preceded by a colon and a quotation mark, and for indirect quotes, which were preceded by a comma. Reading time measures were obtained for the regions of the embedded direct and indirect quotes (i.e., the bridge is very well drawn).

LME modeling revealed a significant main effect of adultness (p<0.05) (M difference between child- vs. adult-directed speech = 119ms); the same pattern held for go-past time (p=0.05, M difference = 156ms), showing that readers spent more time reading speech directed at children than adults. Unlike previous results in alphabetic orthographies, in Mandarin, this APS effect was present regardless of whether the speech was a direct quote or reported speech.

Our results extended previous findings by demonstrating that readers can use cues other than explicit descriptions of the speaker or speech rate to guide perceptual simulation. Also, the results suggest that, at least in reading Chinese text, APS of child-directed speech was performed for both direct and indirect quotes. There are two possible explanations for this effect: 1) It is possible that simulation of speech rate in indirect quotes is specific to tonal languages, as the comma in indirect speech may not be a strong enough cue to suppress the lengthening of lexical tones in child-directed speech; and 2) The comma in indirect quote condition (e.g. I said to the little boy who liked drawing, the bridge was very well drawn) segmented the speech from its preceding text in a format resembling the direct speech condition (I said to the little boy who liked drawing: “The bridge is very well drawn”). Thus readers may have processed the indirect quote condition similarly to the direct quote condition. Further study is ongoing to tease these two factors apart.

Understanding a Strategy in the Acquisition of Chinese Characters: from the Perspective of Sino-Korean Loanwords and Native Learners
Sun-Mi Kim
University of Washington

Regular patterns of correspondence between the source language and the target language are expected with extensive lexical borrowings, due to intense contact. On the whole, the phonological systems of Middle Chinese (MC) and Sino-Korean (SK) do show a high degree of regularity of correspondence. A few phonological features of MC have been adopted irregularly into SK. For example, some SK readings whose MC counterpart has an unaspirated initial have an aspired initial, while some SK readings with an aspired initial in their MC counterpart have an unaspirated initial as shown below:

八 'eight' MC pʰታ SK pʰal 팔

Some research studies (Kōno, 1968; Itō, 2007) explain these discrepancies using hypotheses, such as analogy of the characters’ phonetic components. A large portion of Chinese characters are of the type called xingshēng 形聲 with a phonetic component and a semantic component. Because Chinese pronunciations were borrowed into Korean in tandem with written Chinese characters, orthographic interference had a more significant influence compared to most other scenarios of loanword adaptation. According to the hypothesis, the influence of the phonetic component of a character can interfere with the expected SK phonological feature and caused irregularity.

Several psycholinguistic studies have been conducted on how pronunciation of Chinese characters is acquired to examine the role of each component in literacy attainment by native speaking children and adults. The results
showed that children rely on a phonetic component for phonological cues in reading Chinese characters. The experiments in Ho and Bryant (1997) prove that the OPC (orthography-phonology correspondence, Chen 1993) rules influence children’s reading skills negatively and positively. Shu et al. (2003) suggest that understanding and applying the OPC rules work as a helpful guide to learners, but only to a degree because the correspondence rate is merely around 39%. This over-generalization of the OPC rules serves as a useful empirical model for explaining irregular SK readings by analogy based on phonetic components.

I will apply the result from these studies to explore advantage and disadvantage of focusing on phonetic components in the acquisition of Chinese characters. Chinese characters are one of the most challenging aspects in teaching Chinese as a second language. I will discuss problems that students experience in acquiring Chinese characters and suggest effective pedagogical methods at different learning stages.

**Chinese speaking learners’ bound variable interpretations in L2 Japanese**

Mineharu Nakayama & Zhiguo Xie  
The Ohio State University

This paper discusses experimental results of a truth-value judgment task on Chinese speaking L2 learners’ interpretations of Japanese overt pronouns (OP; kare, kanojo). These data from L1 Chinese speakers are compared with the data from speakers of other L1 languages. For instance, Kanno (1997) reports that English speaking JFL learners accepted the bound variable (BV) interpretations of null pronouns 81.5% of the time while they erroneously accepted the BV interpretations of OPs 13% of the time, despite a low acceptance (42%) of OPs with referential antecedents (CR sentences). She argues that this finding is evidence for learners’ access to the Overt Pronoun Constraint (Montalbetti 1984). Masumoto (2008) and Pimentel & Nakayama (2012, P&N), however, found that English speaking JFL learners could correctly accept CR sentences, but only correctly rejected the BV sentences about a half of the time. Furthermore, Kahraman & Nakayama (2015, K&N) and Hong & Nakayama (2015, H&N) found Turkish and Korean speaking learners of Japanese could not correctly reject the BV sentences even a half of the time. This casts some doubt on Kanno’s claim about the OPC. K&N and H&N suggested a default strategy that OPs can have BV readings. The present study provides additional data from L1 Chinese speakers, supporting this default strategy. Chinese is like Turkish and Korean in that OPs do not allow BV interpretations. If Chinese learners have access to the OPC or L1 transfer, they should correctly reject the BV readings of OPs.

Twelve Chinese speaking JFL learners (at the end of their first year of studying Japanese) participated in our experiment at a Chinese university in Shanghai, PRC. In our questionnaire, they read 37 short narratives in Chinese, and decided if the Japanese sentence that followed each narrative matched the situation they just read. This questionnaire was a Chinese version of P&N’s. Out of 24 test sentences, four sentences were BV sentences with an OP like (1a), and six with a null pronoun like (1b) (three True and three False situations), and the rest with extra-sentential coreference sentences. Each test sentence contained the quantifier *dono X mo* ‘every’ in subject position (as opposed to WH in Kanno and *minna ‘all’ in Masumoto) and overt/null pronouns at the possessive position of the object noun.

Our results were similar to K&N’s and H&N’s: The learners in the present study erroneously accepted OP sentences with BV readings 71% of the time (cf. P&N; 12% for native Japanese speakers). They correctly accepted BV (true) sentences with null pronouns 92% of the time while correctly rejecting the false sentences 96% of the time (cf. accepting CRs with OPs 76% of the time while with null pronouns 81%). These suggest that the learners at an early stage did not think that Japanese OPs are like Chinese OPs. As Chinese is like Japanese with respect to OPs, they could have rejected BV readings with OPs, but they didn’t. This suggests that there is no access to the OPC nor L1 transfer with respect to the BV interpretations of OPs. As this finding is similar to those in Turkish and Korean, it seems to support the default strategy that learners employ, and thus, overgenerate the erroneous interpretations.

(1)  
a. Dono itoko-mo kare-no imooto-o yonda. (*kare=*cousin) ‘Every cousin called his sister.’

b. Dono hisyo-mo [pro] meeru-o kaita. ([pro]= *=secretary) ‘Every secretary wrote her mail.’
A Typology of Counterfactual Clauses
Yong Qian
College of Foreign Studies, Jinan University

This paper contains a synchronic description of counterfactual constructions including the syntactic, lexico-morphologic, semantic and pragmatic properties based on a geographically and genetically diverse sample of 155 languages. Firstly, we found that the concept of ‘counterfactuality’ is not universally definable. Counterfactuality can be either pragmatically implicated or morpho-syntactically coded. Mandarin is a typical case with counterfactuality denoted through pragmatic inference, and similarly in Lisu:

(1) *yí-phwì xǔ -a nγa nγa ñmù vwu-a*

WH-price right-DECL TOP 1SG TOP horse sell-DECL
Understanding I: ‘If the price is right, I will sell my horse.’
Understanding II: ‘If the price had been right, I will sell my horse.’
Understanding III: ‘If the price was right, I will sell my horse.’
Understanding IV: ‘When the price is right, I will sell my horse.’

Secondly, our data reveal that counterfactuals can be realized through various syntactic forms covering from complex (coordinate, co-subordinate and subordinate) sentences to simple clauses;

(2) Berbice Dutch Creole (coordinate)
*Kën dotë fandaka hiri, alma fanen mute.*
Person die-PFV today here all from=3PL go-PFV
‘If somebody died here today, all of them would have left.’

(3) Kusunda (Co-subordinate)
*taŋ g-iw-ən-da tsi sowa-t-n-da*
water 3-go-REAL-SUD I bathe-1-REAL-SUD
‘If it had rained I would have bathed.’

(4) Movima (Subordinate/complement)
*disoy n-as ra<pi~>pis-a=i, manesi.*
CF OBL-ART.N sour<NOML.N~>-LV=PL tasty-PRC
‘If it were sour, it would be tasty.’

Thirdly, we listed a lot of devices which the languages employ to express counterfactuality. A direct strategy is exhibited in languages with dedicated, or specialized CF markers which can be classified into 6 categories, i.e. conjunction, verb, adverb, particle, clitic and affix based on their grammatical functions. Other languages may appeal to combinations of particular morphemes or lexicons, like light verbs with particular inflections, staking uses of mood, combining uses of TAM features and so on.

<table>
<thead>
<tr>
<th>Direct Strategy</th>
<th>Conjunction</th>
<th>Verb</th>
<th>Adverb</th>
<th>Particle</th>
<th>Clitic</th>
<th>Affix</th>
</tr>
</thead>
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<td>2</td>
<td>5</td>
<td>11</td>
<td>2</td>
<td>17</td>
</tr>
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</table>

Table 1 Languages with direct marking strategy

<table>
<thead>
<tr>
<th>Indirect strategy</th>
<th>Light verbs</th>
<th>Tense</th>
<th>Aspect</th>
<th>Tense+Aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of languages</td>
<td>8</td>
<td>41</td>
<td>10</td>
<td>21</td>
</tr>
</tbody>
</table>

Table 2 Languages with indirect marking strategy

Last but not least, we examined cross-linguistic examples of counterfactuals that illustrate the range of semantic and functional varieties and further summarized that besides the canonical counterfactuals indicating conditionality, wish and deontic potentiality, they can also be used to express failed attempt/closely missed event, mistaken identity, past intension and rhetorical question in some languages.
The Typological Relation between Intersubjectivity Semantics and Chinese Syntactic Behaviors
Yan Zhang
Foreign Languages College, Shanghai Maritime University

This paper started from the hypothesis that the process from conceptualization to Chinese linguistic forms is typologically dynamic, which represents as flexible syntactic behaviors. Topic-raising sentences and topic chains were chosen as typical of the forms realizing respectively intro-clausal semantics and inter-clausal semantics. Topic-raising refers to the syntactic behavior that NPs in the embedded clause can be flexibly raised to the matrix clause as the topic; a topic chains is a sentence with zero NPs co-referring with the topic overt NP linking a series of clauses.

The study was conducted under two principles: 1) conceptualization in communication motivate the language structure, which is informed by Langacker 1991/2002 and Goldberg 1995/2006; 2) syntactic behaviors can emerge from discourse context and functions, which is informed by Givon 1995, Li and Thompson 1995, Chu 2006. The analytical framework is linguistic usage event configuration (cf. Langacker 1991/2002, Verhagen 2005), as is shown by Figure 1:

![Fig. 1: Linguistic usage event configuration](image)

Chinese topic-raising and topic chains were analyzed as constructions of intersubjectivity (Verhagen 2005), which can be located on the axis b in Fig. 1. That is, these linguistic forms conventionally profile the speaker’s (A) connecting, differentiating, and instructing the point of view with respect to others (B). Corpus analysis (CCL corpus, [link]; and a Chinese-English parallel corpus of Ba Jin’s novel Cold Night, 2002) proved the original hypothesis. Results can be detailed as:

- There is the co-relationship between Chinese-specific syntactic behaviors and the prominence of intersubjectivity semantics.
- The flexibility in Chinese syntactic structures can be motivated by the discourse functions of topic/focus management and information flow.

Outlining Chinese syntactic complexity development via TC-units
Qiaona Yu
University of Hawaii at Manoa

The framework of complexity, accuracy, and fluency (CAF) has been widely used for assessing second language performance and development in the field of second language acquisition. Complexity reveals the scope of expanding or restructuring second language knowledge and is seen as the ability to use a wide and varied range of sophisticated structures and vocabulary in the L2. Compared to accuracy and fluency, complexity development has yet to receive sufficient attention in Chinese second language teaching and research. Moreover, the conceptualization and operationalization of syntactic complexity was developed in a global fashion but little attention was paid in tailoring them to the varied typological differences like the topic prominence of the Chinese language. Measures based on coordination and subordination are not as valid for Chinese complexity measurement as they are for Indo-European languages. For example, it was found that the mean length of the T-unit of native Chinese speakers is shorter than that of L2 speakers (Jin, 2006; Yuan, 2009).

This study therefore started with a top-down approach that further clarifies and investigates the complexity
construct via an organic and sustainable approach (Norris & Ortega, 2009), mixed with a bottom-up approach that attends the topic-prominence typological features of Chinese in contrasting the subject-prominence of English. The study proposed terminable Topic-Comment Unit (terminable TC-unit) as the unit of analysis for Chinese syntactic complexity. Performing discriminant function analyses on the spoken output of L1 and L2 Chinese speakers (N=115) elicited from a designed online test, four TC-unit-based measures were validated with high efficiency (67.8%~76.5%) at proficiency group membership classification.

Furthermore, qualitative analysis of the collected spoken output confirmed the three stages of Chinese complexity development: threshold, growth, and leap (Jin, 2006). The four TC-unit-based measures observed an outline of Chinese syntactic complexity development in terms of the length and inner-structure of the terminable TC-units. While lower proficiency Chinese speakers were used to apply clause embedding, paratactic syntagma, and typical topic chains, higher proficiency speakers preferred applying clause combining, hypotactic syntagma, and varied types of topic chains. Generally, at the stage of lower syntactic complexity, shorter simple terminable TC-units consisting of only one independent single TC-unit or shorter complex terminable TC-units consisting of less dependent single TC-units are produced. In order to achieve higher Chinese syntactic complexity, longer terminable TC-units consisting of more dependent single TC-units are to be produced. There was also observed likely trade-off effects between the length and composition of single TC-units.

The historical position of the Lufeng Min dialect
Zhijun Zheng
Department of Chinese and History, City University of Hong Kong

Lufeng Min 陸豐閩語 is a Southern Min dialect, which is spoken in Shanwei, Southeastern Guangdong, China. There are barely specific descriptions of Lufeng Min (Chen 2008). In the Language Atlas of China (1987), Lufeng Min is assigned to the Chaoshan 潮汕 subgroup, which is distinctive from the Quanzhang 泉漳 and the Datian 大田 subgroup (Zhang 1985). However, Pan (1998) claims that the Min dialects spoken in this area seems closer to Quanzhang Southern Min than to the Chaoshan group based on their mutual intelligibility. This issue has not been adequately explored in prior studies.

This study attempts to clarify the position of Lufeng Min within Southern Min. We propose a Common Southern Min system based on the correspondences among several Southern Min dialects. We also identify the shared innovations derived from the Common Southern Min system in these Southern Min varieties. The shared innovations listed below are found in both Lufeng Min and Quanzhang subgroup, but not in Chaoshan subgroup.

(1) The complementary distribution between the initials b-, l-, g- and m-, n-, ñ-;
(2) The merger between Common Southern Min finals *eŋ and *oǐ;
(3) The merger between Common Southern Min tone *4 and tone *6;
(4) The lexical item “呾 talk [tã5]” was replaced by “講 talk [koŋ3]”;
(5) The diminutive “囝 son [kiã3]” became “囝 son [ã3]”.

These innovations demonstrate that Lufeng Min should be classified into the Quanzhang subgroup instead of the Chaoshan Subgroup. Furthermore, based on an innovative merger between Common Southern Min finals *u and *i, Lufeng Min should belong to the Zhangzhou 漳州 branch, under the Quanzhang subgroup.

This study provides insight into the methodology of subgrouping Chinese dialects. The conclusion of this study is supported by relevant documents on Lufeng immigration history as well.

Knowing is seeing – on the grammaticalization and subjectification of tai2 “see” in Cantonese
Winnie Chor
The Open University of Hong Kong
As Whitt remarked (2010a; 2010b; 2011), among perception verbs, verbs of visual perception serve as a major lexical source of the grammaticalization of evidentials, motivated by the KNOWING IS SEEING metaphor (Matlock 1989: 219).

This study focuses on the Cantonese perception verb *ti2* “see”. Whitt (2011) has demonstrated how the perception verbs in English and German have grammaticalized and subjectivized to express meanings from indicating direct visual perception (e.g. *I can see you*), to direct visual evidence (e.g. *I can see that you are a beautiful lady*), then further to cognitive inferential reasoning (e.g. *I can see that you disagree with me*). A similar pathway is also observed in Cantonese. Upon grammaticalization from the perception domain to other pragmatic domains, *ti2* no longer refers to actual visual perception alone, but is also used subjectively and evidentially to express the speaker’s attitude and evaluation. While the subject can be any person when *ti2* is indicating direct visual perception, as in *Ngo5/Nei2/Keoi3 sing4 ti2 din6 jing2* (lit. I/You/S(he) always see movie), it can only be the first person pronoun *ngo5* when *ti2* is used to indicate an epistemic evaluative meaning, as in *Ngo5/Nei2/Keoi3 ti2 nei7 fuk1 waa2 hai6 Bat1 Kad1 Sok3 waak6 ge3* (lit. I/You/S(he) see this CL picture BE Picasso draw SFP), no matter this evaluation is based on direct visual evidence (e.g. its appearance, design, and age clearly suggest this) or cognitive inferential reasoning without direct perception (e.g. deduction from the description and analysis reports). The evaluation made in both cases is essentially subjective and from the speaker’s perspective, echoing Traugott’s (1989; 1995) observation on semantic change from non-subjective to subjective. What is more interesting about Cantonese *ti2* is that when *ti2* is used evidentially with different verbal particles, a different source of information is implied. For instance, the evaluation introduced is mostly based on visual evidence when *ti2* is used with *lok2*, while the assessment made is essentially from internal reasoning and inferencing when it is used with *lat4*.

With reference to our corpora data, comprising early Cantonese materials from 1828 to 1933 and transcriptions of 35 hours of Cantonese films produced in the 1950s’, the 1970s’ and the 2000s’, this paper attempts to find out how *ti2* has come to express different meanings with a varying degree of subjectivity and evidentiality, from a diachronic perspective. The paper also explores how different *ti2*-PRT combinations have emerged to indicate a varying degree of the speaker’s assessment and value judgment based on different sources of evidence.

**Bayesian pronoun interpretation in Mandarin Chinese**

Meilin Zhan, Roger Levy, Andrew Kehler  
University of California, San Diego

Kehler and Rohde (2013) proposed that listeners, upon encountering a pronoun, reverse-engineer a speaker’s referential intentions based on Bayesian principles. In their model, the influence of semantics and knowledge-driven inference (e.g., Hobbs 1979) emerges as effects on the prior (next-mention bias), whereas the influence of syntactic prominence and information structure (e.g., Grosz et al. 1995) emerges as effects on the likelihood (production bias):  

\[ P(\text{referent|pronoun}) \propto P(\text{pronoun|referent}) P(\text{referent}). \]

Whereas their model accounts qualitatively and quantitatively for a range of English data, here we present two experiments on Mandarin Chinese that examine the generality of the theory for a language with a different pronominal system and different syntactic-semantic associations than English.

In each experiment, participants completed two-sentence passage by writing a second sentence after a transitive-verb context sentence with two like-gender animate arguments (1).

1. Meihui (NP1) {dadong-le (IC-1)/ jiegu-le (IC-2)} Jieyi (NP2). (Ta)__________  
   Meihui {impressed / fired } Jieyi. (She)__________

The Pronoun condition included an overt pronoun in Sentence 2, allowing us to measure empirical pronoun interoporation preferences \(P(\text{referent|pronoun})\); The Free condition included no material in Sentence 2, allowing us to estimate the prior next-mention preference \(P(\text{referent})\) and the likelihood \(P(\text{pronoun|referent})\) that a pronoun is produced given next mention. First-sentence verbs were one of two implicit casualty (IC) classes, allowing us to manipulate the prior, with IC-1 and IC-2 favoring NP1 in the following explanations respectively. Expt.1 asked participants for completions that explain the first sentence. Completions were hand-annotated for whether the second sentence’s first NP referent cornered with NP1 or NP2. Expt. 2 simply asked for natural continuations, and introduced a manipulation between active voice (as in (1)) and passive voice (X V-le Y -> Y bei X V-le). Rohde and Kehler (2014) found English passives had more next-mentions of the underlying subject, but it remains unclear whether and
why passivization affects the prior. The Mandarin passive provides a good test case since it conveys affectedness of the underlying object (e.g., LaPolla 1988), which might be expected to increase its next-mention rate. Crucially, the Bayesian theory predicts that any effect of passivization on next-mention preferences should have a corresponding effect on interpretation preferences.

The Free condition showed expected effects of IC class on the prior probability of next-mention (Fig. 1, blue) and as in English, NP1 (the syntactic subject) is more likely to be realized pronominally (both null and overt pronouns included, Fig. 2), even in the object-biased IC-2 condition. Both of these effects are reflected in Pronoun condition interpretation preferences: NP1 rates are systematically higher than the prior, but shift with it. Passivization increased next-mention rate for the underlying object in the free prompt data (Fig. 3, blue), and this increase is tracked in the corresponding pronoun prompt data (Fig. 3, green; dashed lines indicate next-mention rates that would be predicted using the active-condition next-mention prior). Fig. 4 plots NP1 pronoun interpretation rates against item-specific predictions of both the full Bayesian model and reduced variants with only prior or likelihood components. The $x = y$ dotted line would be perfect model fit; in both experiments, the Bayesian model had the least (mean-squared) error (0.04), indicating both prior and likelihood are important for pronoun interpretation. These results lend both qualitative and quantitative support to a cross-linguistically general Bayesian theory of pronoun interpretation.

**Phonological representations of dialectal variations**

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Most generative phonologists posit that words are represented in the lexicon in the format of abstract phonological representations that encode only contrastive information (e.g., Chomsky & Halle 1968; Kenstowicz & Kisseberth 1979) while phonologists outside the generativist camp suggest that phonological representations should include a richer array of information, including acoustic information (e.g., Pierrehumbert 2003; Johnson 2005). This study draws on experimental evidence from a phonemic difference in two Taiwan Southern Min dialects to argue that representations must indeed be rich enough to incorporate non-contrastive acoustic information.

Chen (2010) reports on two Taiwan Southern Min dialects, the “Five-Vowel” dialect and the “Six-Vowel” dialect, that show a phonemic contrast. Specifically, the Six-Vowel dialect contrasts /ɔ/ and /ə/ (e.g., /ɔ-a/ ‘taro’, /ə-a/ ‘oyster’), while the Five-Vowel dialect does not (e.g., taro and oyster are homophones /ə-a/). Influence from popular media and population movements for work and study have resulted in frequent contact between younger speakers of the two dialects. This study investigates the representations of the two vowels /ɔ/ and /ə/ by examining the processing of words containing these vowels by speakers of the two dialects. A repetition-priming experiment was conducted in which 20 participants from each dialect group (Five-Vowel: 6M, 14F, ages 20-32; Six-Vowel: 8M, 12F, ages 20-32) were asked to perform lexical decisions on lists of stimuli (cf., Pallier et al. 2001). The stimuli consisted of 96 disyllabic words forming 48 minimal pairs: 24 pairs based on the Specific contrast (i.e., [ɔ] vs. [ə]) and 24 based on a Common contrast shared by the two dialects (i.e., [i] vs. [e], included for comparative purposes). In each contrast [Common contrast omitted here to save space], three conditions were manipulated: 1) Word condition, in which both items in the minimal pair are words (e.g., [ɔ-a] ‘taro’, [ə-a] ‘oyster’); 2) [ə] only condition, in which only the item containing [ə] is a word (e.g., *[ə-lo], [ə-lo] ‘road’); and 3) [ɔ] only condition, in which only the item containing [ɔ] is a word (e.g., [tsɔ-ts] ‘rent house’, *[ts-]tsu)). Equal number of pseudo-word pairs was included to serve as filler.
items. In the stimulus list, one member of each minimal pair appeared first and was followed, 8-to-20 items further down the list, either by the other item in the minimal pair (Minimal Pair condition) or by itself (Same condition). We hypothesized that participants should respond more rapidly (a repetition/facilitation effect) when they encountered a word for the second time versus their response time when encountering a word for the first time (Same condition), since in the former instance the relevant lexical item will already be activated. The crucial comparison lies in the minimal pairs containing the Specific contrast (Minimal Pair condition). The Six-Vowel dialect participants are expected to process these words as distinct lexical items and thus should display no facilitation for the second word of the pair. The Five-Vowel dialect participants are expected to process these words as either 1) homophones (showing the same degree of facilitation as they did for the Same condition), or 2) distinct lexical items (no facilitation for the second word, mirroring the Six-Vowel participants). The first prediction supports a highly abstract lexical representation, while the second supports a rich representation in which dialectal differences, although not contrastive, are stored.

Results from the two dialect groups were found to be comparable in the Common contrast (B), as predicted, since the vowels tested (i.e., [i, e]) are phonemic in both dialects. Of interest here are the results for the Specific contrast (A). We found facilitation only in the Same condition for the Six-Vowel dialect, which was predicted since /ɔ/ and /ə/ are contrastive in this dialect. For the Five-Vowel dialect, however, we found significant facilitation in both conditions (Same and Minimal pair). A further investigation into the results, shown in Figure 2, revealed that the facilitation effect in the Minimal-pair condition for the Five-Vowel dialect was driven by the Word and [ə] only conditions. In other words, Five-Vowel-dialect-speaking participants did not simply perceive [ɔ] and [ə] as the same; rather, their perception was sensitive to the phonemic contrast that produced a minimal pair in the Six-Vowel dialect. Surprisingly, Figure 2 also revealed a significant facilitation effect in the Minimal-pair condition for Six-Vowel-dialect speakers in the Word condition, suggesting that [ɔ] and [ə] were not simply perceived as different by the listeners of the Six-Vowel dialect. These results, taken together, suggest that non-contrastive dialectal information, garnered from prior cross-dialectal experiences, may affect listeners’ perception and thus should be represented in the phonological component of grammar.

Figure 1

I-R tonal mapping:
Evidence from the ‘cute talk’ reduplication in Taiwan Mandarin

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This paper addresses ‘cute-talk’ reduplication in Taiwan Mandarin, where a nominal base is suffixed by a reduplicative morpheme (termed reduplicant or RED for short) to denote a puerile or endearing style. One observation is that the ‘cute-talk’ reduplication involves tonal overwriting, which is conditioned by the registers of input tones. If the input is low-registered, a morphologically fixed tone pattern, L-H or L-LH, will be imposed on the reduplication. In particular, a reduplication that has a level-toned base emerges with a L-H pattern, e.g. /baol-RED/ → [baol-baoH] ‘baby’ (cf. ?[baol-baoLH]), while a reduplication that has a rising-toned base emerges with a L-LH pattern, e.g. /niulH-RED/ → [niul-niuLH] ‘cow.’ On the other hand, If the input is high-registered, the tonal overwriting is
blocked, e.g. /maoH-RED/ → [maoH-maoH] ‘puss’ and /fanHL-RED/ → [fanHL-fanHL] ‘yum’ (bases being in boldface). The selection of the fixed tone patterns are analyzed under the correspondence theory. A central claim is that the Input-Base correspondence and the Input-Reduplicant correspondence are both necessary. Namely, IB register faithfulness requires that the fixed tone patterns are triggered only by low-registered inputs, and IR contour faithfulness determines which of the two patterns to be selected. Essentially, this analysis offers evidence for independent IR correspondence on tonal mapping.

**Inconsistent Consonant Effects on F0 in Tonal Languages:**
**Inter-linguistic and Intra-linguistic Variation**
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**Introduction:** Previous research shows that aspirated consonants and sonorants can have inconsistent consonantal effects on F0 of the following vowel across languages, and even within the same language in different studies. This study is interested in such inconsistent consonantal influences in tonal languages and asks (1) what are the effects of aspiration and sonorancy on F0 in tonal languages? (2) What factors condition these consonantal effects on F0?

**Target languages:** The target languages, namely Mandarin and Cantonese, are selected because: (i) there are inconsistent reports of consonantal effects in these languages; (ii) they have undergone different historical tone changes. Mandarin underwent an unusual historical tone merger: rising tones with sonorant initials merge with rising tones with voiceless obstruent initials, instead of merging with rising tones with voiced obstruent initials. Cantonese does not have this unusual merger.

**Experiment:** Six Mandarin speakers (2F, 4M) and eight Cantonese speakers (5F, 3M) participated in a series of production experiments. Since the Cantonese participants also speak native-like Mandarin, six of the eight Cantonese speakers (3F, 3M) continued to participate in the Mandarin production experiment, to test any effects from bilingualism. The Cantonese stimuli (n=86) cover six Cantonese tones: T1(55), T2(35), T3(33), T4(21), T5(23) and T6(22), and the Mandarin stimuli (n=86) cover four Mandarin tones: T1(55), T2(35), T3(214) and T4(51). All stimuli in both languages have CV syllable templates. Initial consonants include aspirated [tʰ, kʰ, pʰ], unaspirated [t, k, p] and sonorants [m, l, n, (ŋ)]. The test items were embedded in a carrier phrase and presented in a randomized order. F0 values were extracted every 5ms and normalized. The mean normalized F0 values following the voicing onset were analyzed within the first 15 ms.

**Results:** Across languages, consonant type does not have a significant effect on the F0 of the following vowel in general. All of the significant effects in the findings are as follows: Consonant type (i.e. whether it is an aspirated obstruent, an unaspirated obstruent, or a sonorant) has a major effect in three Mandarin tones (T1(55), T2(35) and T4(51)), one Cantonese tone (T1(55)) and none of the tones in the Cantonese speakers’ Mandarin. The findings suggest that the consonantal effect is stronger in Mandarin than in Cantonese or Cantonese speakers’ Mandarin. Interestingly, consonantal effects are mainly found in tones that are associated with H-tone: Cantonese T1(55), Mandarin T1(55), Mandarin T2(35) and Mandarin T4(51). However, these effects are still inconsistent even within the same language: aspiration has a lowering effect in Mandarin T2(35) and a raising effect in Mandarin T1(55) and T4(51). Sonorants consistently lower onset F0 values in all tonal contexts in Mandarin.

**Discussion:** Our findings suggest that (a) consonantal effects on the F0 of the following vowel are language-specific and conditioned by lexical tones; (b) the unusual historical rising tone merger may have resulted from the special interaction between consonant type and the rising tone in Mandarin, as suggested by our Mandarin results.

**Lexicalization Patterns of Motion Events and the Acquisition of Chinese**
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Recent empirical research revealed that languages with different lexicalization patterns of motion events (e.g., verb-framed versus satellite-framed) would influence their native speakers’ habitual ‘thinking for speaking’ (Slobin
The negative transfer naturally occurs when learners’ first language and the target language differ in their lexicalization patterns of motion events as learners are inclined to pay attention to the prominent elements encoded in their first language and establish a mapping based on its meaning-form (Cadierno, 2008). This paper reexamines the lexicalization patterns of motion events in Chinese by drawing upon the latest comparative studies on Old Chinese data and its modern translations. Although modern Chinese favors a satellite-framed pattern, it is still in the process of developing from a Verb-framed language, which explains why Chinese does not behave as a typical S-framed language as English with regards to the path and ground of the motion events (Shi and Wu, 2014). In light of the most recent research results, the pattern preference of English learners of Chinese at the post-secondary level are collected and analyzed to show how the typology of their first language affects the acquisition of Chinese language.

The Effects of Task Types on L2 Chinese Learners’ Speaking Performance: Lexical Richness and Quality
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This study investigates the effects of task types on advanced-level Chinese as a second language (L2) learners’ speaking performances, and how task sequencing options can be implemented over instructional design to improve learners’ oral production. Twenty advanced-level English L1 Chinese L2 learners participated in the study. They performed eight speaking tasks that were constructed with contrasts on the following two dimensions, in a 2 X 4 fashion: interaction (dialogue vs. monologue), discourse type (introductive, descriptive, explanatory, and persuasive). Vocabulary richness (measure Guiraud’s Index of Lexical Richness) and lexical quality (lexical difficulty levels, measure HSK Vocabulary Ranking) of the speech were measured in order to evaluate learners’ speaking performance. The theoretical base of this study is the Cognition Hypothesis (Robinson, 2001b, 2003a, 2011). And the task design is guided by the Triadic Componential Framework (Robinson, 2001b, 2005, 2007a; Robinson & Gilabert, 2007b). It aims to address the following questions: 1. What is the effect of increased cognitive task complexity on learners’ lexical richness? 2. What is the effect of increased cognitive task complexity on learners’ lexical quality? Descriptive statistics and mixed general linear model analyses of variance were used to analyze data. An impact of increased task complexity on lexical complexity is found, that the variety of words that learners use increases when tasks are made more complex. The finding is consistent with similar studies that were done with different L2s (Gilabert 2005, Robinson, 1995). Strong correlation between mode (monologic vs. dialogic) and lexical richness is found. Results show that dialogic mode triggers richer vocabulary use than monologic mode. However, lexical quality (lexical difficulty levels) were not significantly different among different tasks, which indicates that learners have hard time to increase the quality of their vocabulary when text types are changed and tasks are made more complex. It is suggested that task sequencing options can be implemented over instructional design to improve advanced-level learners’ oral production. With the assistant of necessary vocabulary exercises, instructors will not only be able to promote the improvement of lexical richness, but also lexical quality.

Numeral Classifiers and Grounding in L2 Chinese
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In studies of how L2 learners express grounding, we learn that grounding is a construct that is difficult for L2 learners to acquire even though the concept exists in all languages. These studies are based on Spanish, Catalan, and Japanese (Salaberry 2011, Granda 2006, Comajoan & Perez Saldanya 2005, Saigo 2006). In these languages grounding is encoded by tense/aspect verbal morphology and final particles. However, it is possible that the challenge learners face has to do with the verbal morphology or final particles, which are difficult to master independent of grounding. For instance, Comajoan & Perez Saldanya (2005) argue that L2 learners acquire perfective verbs prior to imperfect. Saigo (2006) mentions that native Japanese speakers feel “awkward” in talking to learners with respect to the use of particles. With other types of coding devices, L2 learners may be able to encode foregrounding and backgrounding with relative ease. Is this hypothesis supported? Chinese is a language that allows us to test this
According to Li (2000, 2014), numeral classifiers and aspect are ways to encode grounding in Chinese. In foregrounding numeral classifiers are used to indicate the saliency of the following NPs. In backgrounding, these features are usually not found. For instance, Ta shouli nazhe yiben shu, 'He has a book in his hand' vs. Ta shouli mei na shu, 'he doesn't have a book in his hand'. The numeral classifier yiben indicates the saliency of shu 'book' in foregrounding while in backgrounded clause, yiben is not used. In this study I will examine how L2 learners encode grounding with numeral classifiers. Do L2 learners of Chinese use numeral classifiers to encode foregrounded clauses and not use them when encoding backgrounded clauses? A positive answer would suggest that learners are able to distinguish foregrounding from backgrounding by manipulating devices other than verbal morphology and final particles, whereas a negative answer would suggest that the coding of grounding is indeed difficult for learners regardless of the coding devices.

14 learners and 10 native speakers participated in an experiment where each subject told a story in Chinese based on a series of pictures. We find that in foregrounding learners used averagely 2.3 numeral classifiers while native speakers used 2.6. An ANOVA shows the main effect of language was not significant. These results suggest that learners know how to use numeral classifiers to encode foregrounding. Results on how they use numeral classifiers in backgrounding will be available soon. Preliminary findings show that learners overuse numeral classifiers in backgrounding. If learners do not perform well in backgrounded clauses, e.g. not knowing that numeral classifiers are usually not used in this environment, this would suggest that grounding distinction is indeed difficult for L2 learners to encode. This would also mean that our hypothesis is not supported. Rather, the data supports Shibata (2000) and Comajoan & Perez Saldanya (2005)'s findings that acquisition of foregrounding encoding is prior to their acquisition of backgrounding encoding.

The Second Language Acquisition of the Mandarin Potential Complement Construction

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The Mandarin Potential Complement Construction is a language specific structure. This is different from most of the languages in the world including English where modal notions are expressed by modal verbs and auxiliaries. It is a syntactic construction used to convey potential possibility in Mandarin and Cantonese. The various behaviors of the modal expressions in these three languages, i.e., English, Cantonese and Mandarin, raise interesting questions in second language acquisition research. The paper adopts an acceptability judgment test methodology, complemented with corpus study, to discern the level of acquisition of the Potential Complement Construction.

In particular, this study tested the L2 acquisition of the Mandarin Potential Complement Construction by speakers of L1-English and L1-Cantonese. Data was collected using an acceptability judgment task, plus the selection of relevant sentences from the HSK dynamic Composition Corpus—a corpus of written L2 Mandarin data from test materials. Three second language acquisition theories (the Markedness Differential Hypothesis; the Subset Principle; and the U-shaped learning theory) were reviewed. Based on those theories, predictions were made about how easy or difficult it should be for L1-English vs. L1-Cantonese speakers to acquire various types and aspects of the Mandarin Potential Complement Construction.

Given that the Mandarin Potential Complement Construction is less marked than the Cantonese counterpart, but more marked than English modal expressions, I hypothesized that Cantonese speaking learners would have more native-like performance than English speaking learners. Surprisingly, this hypothesis was not completely confirmed in the present study. This research work on the Potential Complement Construction is anticipated to be timely and novel in that this is a construction that has received relatively little attention, and the use of acceptability judgment has often been neglected.

Syntactic-Semantic variability and the categorization of V-qilai constructions in Mandarin

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This quantitative study focuses on the bi-clausal V-qilai construction and its variations in Mandarin Chinese. This structure typically contains two clauses, namely an adjunct clause headed by V-qilai, and a matrix clause
containing the main predicate. Example (1) instantiates one of the most typical types of this construction:

(1) Zheï tiao qunzi chuan-qilai hen chang.

This CL.piece dress wear-qilai very long
‘This dress is very long (when anybody wears it).’

The syntactic category of this construction has been the center of discussion for decades, and the most prevalent analyses regarding this respect involve middle, raising and control hypotheses. Those studies propose that Chinese V-qilai structure encompasses various sub-categories, which are analogous to the middle, raising and control constructions in other languages. However, there are problems with those analyses: 1. The variability of bi-clausal V-qilai constructions is not fully characterized; 2. No unified syntactic-semantic criteria are used to classify bi-clausal V-qilai sentences; 3. Discourse factors are neglected in their characterization.

The variability of bi-clausal V-qilai construction arises two questions. One is whether this linear structure represents a homogeneous syntactic category or consists of various independent categories? The other is what syntactic, semantic and pragmatic factors determine the categorization of bi-clausal V-qilai construction?

To answer the above two research questions, this corpus-based study examines 381 bi-clausal V-qilai sentences from CCL corpus, and introduces two quantitative techniques, i.e. Multiple Correspondence Analysis (MCA) and Hierarchical Clustering on Principle Components (HCPC), for (i) the exploration of variables that contribute to the variations and categorization of bi-clausal V-qilai construction in Mandarin Chinese, and (ii) the identification of various sub-categories (i.e. clusters) of bi-clausal V-qilai construction. Each V-qilai sentence is characterized by 12 variables, which are mostly adopted from previous analyses, involving: The alignment of arguments (i.e. the arguments of V-qilai and the main predicate); whether the verb in V-qilai is a perception verb or not; the eventivity of V-qilai phrase; the clause linkage of the two clauses; the presence of a conditional marker; the definiteness of the actor (and the single argument of intransitive V-qilai) of transitive V-qilai; the genre and source of the text.

As a result, MCA reduces the original 12 variables to a 2 dimensional factor map, and the significance of each variable varies in different clusters. The alignment of arguments in V-qilai structure and the valence of its head verb to a large extent determine the categorization of each cluster under this construction. HCPC, on the other hand, suggests that this construction is in fact a heterogenous syntactic category. It identifies at least 6 clusters under bi-clausal V-qilai construction. A raising-like cluster (Cluster 1-1, 107 tokens) is the most productive subcluster of this structure, followed by its eventive variant (Cluster 1-2, 98 tokens) and an intransitive cluster (Cluster 6, 85 tokens); two quasi-control clusters are subsumed under cluster 3 and cluster 1-3. Additionally, two peripheral ditransitive clusters (cluster 2 and 4) and an undetermined cluster 5 are found distinct from all other sub-categories. Moreover, the result of HCPC also suggests that bi-clausal V-qilai construction doesn’t contain a sub-class that corresponds to middle.

Resultative Verb Complements in Modern Chinese and the Pedagogical Implications
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This paper focuses on the analysis of Chinese as a Second Language (CSL) learners’ uses of resultative verb complements (RVC) and, based on the analysis of RVCs in interlanguage, aims to propose a pedagogical framework of teaching RVCs. A preliminary examination of interlanguage concerning uses of complements in HSK Dynamic Composition Corpus reveals that errors concerning complements can be classified into two types, omission and substitution. The former refers to the phenomenon that CSL learners tend to omit complements after verbs, while the latter that CSL learners substitute the correct complements with the wrong ones. A closer inspection of the data indicates that the complements are mostly related to RVCs instead of other types of complements, and that the number of errors involving omission of complements (739) is higher than that of those concerning substitution of complements (478). The high frequency of errors involving omission of complements suggests that CSL learners may not have the awareness of using complements when generating the target language, which signals that the learners do not fully acquire the language.

To further delve into this issue, the paper starts with an experiment on learners’ awareness of uses of RVCs in
interlanguage development. Learners of different levels are asked to judge the grammaticality of each sentence, with and without RVC, in pairs. The data and its analysis lay a foundation for pedagogical sequencing as proposed by Teng (2009). Structural complexity, semantics complexity, crosslinguistic distance, and pragmatic function, as in Teng (2009), are taken into consideration for pedagogical sequencing of RVCs in CSL classes. In addition to the pedagogical sequencing of RVCs, fine-grained instructional strategies of RVCs are also called for and examined to further validate the analysis results. The instructional strategies mainly include the visual aids for learning as how the experiments are conducted above.

**Two Dimensions of Register Variation in Chinese and English**
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The present paper is an extension of the author’s recent research on stylistic variation in written Chinese (Zhang 2011, 2012a, 2012b, 2013a, 2013b).

Using Biber’s corpus-based multi-feature/multi-dimensional approach (Biber 1988), the author has demonstrated in these papers that contrary to the widely assumed single dichotomous distinction between non-written and written styles, there are two separate dimensions in written Chinese, i.e., the literate dimension and the classical dimension. Registers having more classical elements are not necessarily more literate; nor do the most literate registers have the most classical elements. These results have been collaborated by Feng’s stylistic model independently arrived at on purely theoretical grounds (2013).

Using the same methodology and the large balanced Corpus of Contemporary American English (COCA) created by Mark Davies of Brigham Young University, the present study shows that two similar dimensions (literate and literary) are also the most significant for written English. Based on the similarity between Chinese and English, the present study suggests that these two dimensions are universal, motivated on universal functional grounds.

**Variation in disagreement in everyday Mandarin conversation**
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This study investigated the frequencies of strong and weak disagreements (Pomerantz, 1984) by participating native Chinese speakers and the associations, if any, between the uses of strong and weak disagreements and four sociolinguistic variables including sex, age, education and social distance. Data were derived from informal mundane conversations among relatively equal-status non-familial Mandarin speakers in a southeastern city of Mainland China. Chi-square tests and a logistic regression model were employed for data analysis. The study showed that the proportion of strong disagreement is significantly higher than that of weak disagreement expressed by the participants. However, disagreement was not found to be significantly associated with any one of the variables.

Previous research has examined disagreement by English speakers (Pomerantz, 1984), European Jews (Schiffrin, 1984), Greek speakers (Kakava, 2002) and Chinese people (Pan, 2000). Disagreement behavior might be influenced by sociolinguistic variables such as social status (Locher, 2004; Du, 1995), social distance (Liu, 2004), sex (Swacker, 1979) and age (Goodwin, 1983). Nevertheless, little research has examined disagreement in informal conversations in Mandarin. To fill the gap, this study revealed the variation in the use of disagreement expressed by 61 relatively equal-status non-familial Mandarin speakers in recorded spontaneous mundane conversations in a southeastern city of Mainland China.

The results showed that the proportion of strong disagreement in each category of each sociolinguistic variable is greater than 80%. It is at least four times that of weak disagreement across sex, age group, education, and social distance. Strong disagreement was used significantly more than weak disagreement. Also, disagreement was found to be independent of the four sociolinguistic variables. This means that the impact of conventionally important sociolinguistic variables in a hierarchical society like China, such as age, on disagreement might have been weakened in everyday life. Although we cannot generalize the results to the population of disagreement in Mandarin because this is an observational study, we expect to see, in a replication study, the same finding that the proportion of strong disagreement is significantly higher than that of weak disagreement in Mandarin.
The participants’ tendency to use strong disagreement despite their varying demographic characteristics might have resulted from many reasons. For instance, they did not have obvious status difference or conflicts of interest. They conversed about trivialities for the purpose of socializing. It might be their choice of tone, pitch and volume, rather than the syntactic structure of disagreement, that made a difference in their pragmatic judgments in the ongoing conversations. Their perceptions of strong disagreement might have shaped their acts.

This study has theoretical and pedagogical implications. It seems to disconfirm the stereotypical assumption of Chinese being indirect in communication (e.g., Gao and Ting-Toomey, 1998). It weakens the claims of universals of disagreement (Leech, 1983) and politeness (Brown and Levinson, 1987). The findings can help prevent misunderstandings in intercultural communication that involves Mandarin Chinese speakers. More importantly, it is a meaningful addition to the field of pragmatic variation in naturalistic conversations. It can inform the TCFL profession and provide CFL teachers and learners with examples of authentic resources.

Grammatical constraints on Chinese-English intrasentential codeswitching
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Introduction
This study investigates grammatical constraints on intrasentential codeswitching between Chinese and English. Perception of constraints was explored through an acceptability judgment task and follow-up interviews, and production was elicited through a story narration task as in Toribio (2001). Chinese-English bilinguals (hereafter CE bilinguals) are distinguished from English-Chinese bilinguals (hereafter EC bilinguals). The former refers to bilinguals whose first language is Chinese and the latter refers to individuals who learn Chinese as a second language. This distinction has rarely been made in codeswitching studies, which may have led to overgeneralization.

Methodology
Participants: Six CE bilinguals and five EC bilinguals were recruited to participate in this study. All eleven participants were graduate students enrolled in a Midwest university in the USA. All participants were fluent bilingual speakers with extensive immersion experience in their L2’s culture.

Production (Narration Task): Participants were asked to narrate Don’t Forget Me, Santa Claus, a Christmas picture book, in Chinese with codeswitching into English where felt most natural. The narration process was audio-recorded for analysis. This task was performed first to avoid priming effects from the acceptability judgment task.

Perception (Acceptability Judgement Task & Follow-up Interview): The acceptability judgement task asked participants to rate the naturalness of 37 intrasentential codeswitching sentences in oral speech on a scale of one (unnatural) to five (natural). The majority of the test items were adapted from the 21 naturally occurring codeswitching sentences in Wei (2002). Follow-up interviews were conducted so participants could directly comment on their attitudes toward codeswitching and the constraints that affect the acceptability of a sentence.

Results & Analyses
The qualitative data from interviews suggest that CE bilinguals and EC bilinguals identify the same set of favorable and unfavorable constraints on intrasentential codeswitching sentences. Moreover, some EC bilinguals view codeswitching as a barrier to their L2 learning and specifically try to emulate CE codeswitching norms, whereas for many CE bilinguals codeswitching is more about convenience.

The quantitative analysis of the story narration task suggest that EC and CE bilinguals recognize similar constraints but actualize them differently. EC bilinguals produced more codeswitching tokens on average. Four of five EC participants switched on verbs, including the main verb of the sentence (usually uninflected), but only one CE participant switched on a verb, which was not the main verb. Plural inflection of nouns was seen in both groups, even in the absence of a Chinese plural-marking phrase before the noun.

The acceptability task indicates that CE bilinguals have an identifiable middle ground in the preference hierarchy but EC bilinguals do not, though both groups agree on the most and least favorable constraints. See below for a summary.
Preference | CE Bilinguals | EC Bilinguals
--- | --- | ---
High | single word switch & idiomatic phrase | single word switch & idiomatic phrase
Medium | verbal phrases | ???
Low | long English islands & incorrect word order | long English islands & incorrect word order

**Conclusion**

The results of the acceptability judgment task suggest that the two groups of bilinguals recognize a similar set of grammatical constraints that affect the acceptability of an intrasentential codeswitching sentence but show difference in the hierarchy of these constraints. Differences were also seen between the two groups in production of plurals and verb inflection. Results from both tasks in this study supports making a distinction between CE bilinguals and EC bilinguals and potentially has implications for theoretical models of bilingual codeswitching production and perception.

**Morphological Variation of Wh-placeholders in Mandarin and Cantonese**

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This talk compares the morphology of *wh*-placeholders in two Chinese dialects, Mandarin and Cantonese. A *wh*-placeholder is made up of *na*-ge (demonstrative-classifiers) and a *wh*-expression. Cheung (2015) has shown that they can flexibly substitute phrases, words, or syllables which the speaker cannot utter in situations such as forgetting someone’s name and taboo words. *Wh*-placeholders are also found in Cantonese, as in (1, 2). [M=Mandarin; C=Cantonese]

(1) a. Na-ge shenme huai-le. (M)  
   ‘The whatchamacallit is broken.’

   b. Go-go me waai-zo laa. (C)
   ‘The whatchamacallit is broken.’

(2) a. Tamen renshi na-ge shei. (M)  
   ‘They know whatshisface.’

   b. Koeidei sikdak gogo bingo aamaa. (C)
   ‘They know whatshisface.’

However, as is shown below, Cantonese *wh*-placeholders display some interesting morphological properties different from Mandarin equivalents.

Two questions will be addressed. First, how is the morphology of *wh*-placeholders in Mandarin and Cantonese different from each other? Second, how can these similarities and differences be accounted for? Grammaticality judgement tasks were administered to Mandarin and Cantonese speakers to test the acceptability of different combinations of proximal/distal demonstrative, and *wh*-words (e.g. argument vs adjunct *wh*-words).

The morphology of the two varieties is very similar when the *wh*-placeholder substitutes a nominal expression. Both require a demonstrative to appear before the *wh*-word, as in (1). However, two major differences have been identified.

**Property 1:** When the *wh*-placeholder is used to substitute a verbal or adjectival predicate, Mandarin speakers strongly prefer “Dem-CL-*wh*” (i.e. *na*-ge *shenme*) or simply *na*-ga, but Cantonese speakers can only allow a bare *wh*-word without demonstrative and classifier (i.e. *me*), as shown in (2).

(2) a. Tamen yijing na-ge (shenme)-le. (M)  
   ‘They already you-know-what-ed (= had sex).’

   b. Koei gongje taai {dim/✔*me*}-le. (C)
   ‘They already you-know-what-ed (= had sex).’

**Property 2:** Quite a number of Mandarin speakers accept the use of *zenme*(yang) ‘how’ to replace a verbal or adjectival predicate. However, Cantonese prohibits the use of *dim*(joeng) ‘how’ in the same context, as in (3).

(3) a. Ta shuohua tai {zenme/shenme}-le. (M)  
   ‘They already you-know-what-ed (= had sex).’

   b. Koei gongje taai {*dim/me*}-le. (C)
he speak too how/what-PERF
‘The way he talked is too you-know-what (= arrogant).’

he speak too how/what-PERF
‘The way he talked is too you-know-what (= arrogant).’

To explain Property 1, we follow Cheung (2015) and suggest that Mandarin *wh*-placeholders are made up of a definite operator and a *wh*-expression. The difference is mainly due to the preference for deletion. While Mandarin has the strong tendency to delete the *wh*-expression, Cantonese tends to delete the definite operator part. Property 2 can be attributed to the dialectal difference that Mandarin *zenme*(yang) can independently be used to question predicate but Cantonese *dim*(joeng) cannot. This makes Mandarin *zenme*(yang) a good candidate among the *wh*-words to substitute predicates but Cantonese *dim*(joeng) cannot.

A Corpus Study of Post-verbal KEOI in Cantonese-English Bilingual Children
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This study examines post-verbal 3rd person pronoun *keoi* (him/her/it) with inanimate referents (henceforth, *KEOI*) in Cantonese-English bilingual children, aiming to find out the semantic properties of clauses with *KEOI* in Cantonese-speaking children’s speech and adult input, and the parallels and differences between monolingual and bilingual child acquisition of *KEOI*. We analyzed spontaneous speech of 9 Cantonese-English bilingual children (1;3-4;6) from the Hong Kong Bilingual Child Language Corpus (Yip & Matthews, 2007) and 8 Cantonese monolingual children (1;10-3;4) from the Hong Kong Cantonese Child Language Corpus (Lee et al., 1996), and input from their Cantonese-speaking parents.

In this paper, we suggest that the prototypical use of *KEOI* requires the predicate to express a bounded event via a dynamic verb with delimiting constituents such as aspect markers, particles (resultative, directional, or quantifying), locative phrases, and phrases expressing duration, frequency or verbal measurement, etc. The analysis reveals that *KEOI* emerged at around 1;5 in bilingual children and around 2;1 in monolingual children. It was exclusively used as a direct object pronoun (except for one case as an emphatic pronoun). The majority of *KEOI* were in the format of [verb + perfective –zo2 + *KEOI*] and [verb + particle + *KEOI*] in bilingual (80%) and monolingual children (90%) as well as adults (78%). While they were generally sensitive to the boundedness requirement, bilingual children used more non-adult-like *KEOI* that lacks the delimiting element than monolingual children (13% vs. 1%), as shown in (1). Bilinguals also used novel constructions not found in monolingual peers, as in (2) and (3) that show *KEOI* and the English pronoun *it* were used interchangeably in code-mixing utterances. The results confirm the boundedness requirement of prototypical use of *KEOI* and point to children’s early sensitivity to boundedness. It also suggests possible cross-linguistic influence from English to Cantonese in bilingual acquisition of *KEOI*.

(1) *Li1dou6 ngo5 soeng2 sai2 KEOI.*
   here I want wash it (= a scratch on the piano)
   Intended: ‘Here, I want to wash it away.’ (Darren 3;06.29)

(2) *Ho2-m4-ho2ji5 swallow KEOI gaa3? can-not-can it (= a candy) SFP*
   ‘[Can I] swallow it?’
   (Kathryn 3;03.16)

(3) *Baai2-dai1 it there.
   put-low
   ‘Put it down there.’
   (Charlotte 2;01.22)
How much fieldwork data do we need? The case of Siyi Yue dialects

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INTRODUCTION: Fieldwork is the cornerstone for studying relationships between Chinese dialects, and is often carried out with time and financial constraints. However, it is unclear how much data is enough for researchers to have basic ideas about similarities and differences between dialects. The current study uses 1340 lexical items from a comparative Yue lexicon (Zhan & Cheung 1988), and quantifies the distances between 7 Siyi Yue dialects with increasing amount of lexical data. The current results show that dialect distances quantified from a random set of 65 lexical items are already highly correlated with the dialect distances generated from the full set of 1340 lexical items. Results also suggest that a subset of Swadesh list with 63 lexical items may also be sufficient for quantifying dialect distances.

METHODS: Sets of 1 to 1339 lexical items were randomly selected from the full 1340-item set from Zhan & Cheung (1988). 63 lexical items were also deliberately chosen to form an additional set, as they appear in both Zhan & Cheung (1988) and the Swadesh list (Swadesh 1971). For each set of lexical items, distances between the 7 Siyi dialects (Taishan, Kaiping, Heshan, Jiangmen, Xinhiui, Enping and Doumen) were quantified by normalizing the number of segmental differences (i.e. segmental Levenshtein distances) between the lexical items among the dialect (Heeringa 2004, Tang 2009). Mantel test with 10000 permutations was used to determine the amount of correlation between these dialect distance matrices generated with varying amount of lexical data and the matrix generated with the full 1340-item set.

RESULTS: Results for the first 300 random lexical items are visualized below in Fig 1. Correlation with the full 1340-item set stays above 0.95 once there are 53 or more lexical items, and above 0.98 once there are 174 or more lexical items. Therefore, in terms of quantifying dialectal relationships in Siyi Yue, a random set of 53 lexical items may achieve very similar results as the full 1340-item set, while a 174-item set achieve a distance model that is almost identical to the full 1340-item set. The selected set with 63 Swadesh-list items also achieve a correlation of 0.951 with the full item set, and thus the Swadesh list appears to be providing the same results as the full 1340-item model as well.

CONCLUSION: The current study quantifies the relationships between 7 Siyi Yue dialects, and suggests that using a set of 53 random lexical items or a 63 item Swadesh list may achieve the same results deduced from a 1430-item set. Therefore, for future studies of dialectal relationships, efficient preliminary fieldwork may be conducted using a word list with approximately 53 lexical items (or more). Fieldworkers may also choose to work with a 174-word list on the very safe side. The current results may serve as a yardstick for future dialectal studies and benefit many fieldworkers.
Quantifier scope in Mandarin Ditransitives
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Mandarin is widely analyzed as a scope-rigid language (Huang 1982, Aoun & Li 1993), wherein sentences with two or more quantificational noun phrases (QNPs) show only surface scope readings. One departure from scope-rigidity is seen in active-passive pairs (1a, b). As noted by Aoun & Li (1993), whereas the active is scope rigid, the passive allows an inverse scope reading.

(1) a. Yaoshi [liang-ge zhongguo yundongyuan] nadao [mei-kuai jinpai]...
   if two-CL Chinese athlete get every-CL gold medal
   ‘If two Chinese athletes get every gold medal’
   \( \exists > \forall, *\forall > \exists \)

b. Yaoshi [liang-kuai jinpai] bei [mei-ge zhongguo yundongyuan] nadao ...
   if two-CL gold medal PASS every-CL Chinese athlete get
   ‘If two gold medals are got by every Chinese athlete’
   \( \exists > \forall, \forall > \exists \) (preferred)

Here we show that Mandarin PP dative (PPD)/double object (DOC) pairs also exhibit differential scope relations, which are strikingly similar to English. We explore the consequences of this observation.

English ditransitives are asymmetric in scope possibilities (Larson 1990, Bruening 2001). Whereas PPDs show the usual ambiguity (2a), DOCs show scope frozen in the surface order (2b). Strikingly, the same pattern is found in Mandarin (3a, b), (4a, b). Natives speakers judge that whereas (3b) is scope-frozen, (3a) can convey either that two particular books were given to all the students or that each student received two, possibly different books. Similarly for (4a, b):

(2) a. The teacher assigned some task to every child. b. The teacher assigned some child every task.
   \( \exists > \forall, \forall > \exists \)
   \( \exists > \forall, *\forall > \exists \)

(3) a. Laoshi song-le [liang-ben shu] [pp gei mei-ge xuesheng].
   teacher give-ASP two-CL book to every-CL student
   ‘The teacher gave two books (as a gift) to every student.’
   \( \exists > \forall, \forall > \exists \)

b. Laoshi song-le [liang-ben shu] [mei-ben shu].
   teacher give-ASP [liang-ben shu] [mei-ben shu].
   ‘The teacher gave two students every book.’
   \( \exists > \forall, *\forall > \exists \)

(4) a. Zhangsan mai-le [liang-ben shu] [pp gei mei-ge xuesheng].
   Zhangsan sell-ASP two-CL book to every-CL student
   ‘Zhangsan sold two books to every student.’
   \( \exists > \forall, \forall > \exists \)

b. Zhangsan mai-le [liang-ben shu] [mei-ben shu].
   Zhangsan sell-ASP two-CL student to every-CL book
   ‘Zhangsan sold two students every book.’
   \( \exists > \forall, *\forall > \exists \)

The ambiguity of the PPDs (3a)/(4a) is surprising given the usual view of Mandarin as scope-rigid. But in fact PPDs actually favor inverse scope in some cases, as in (5), which shows the same inverse preference as its English gloss given the pragmatic infelicity of every student receiving the same comments:

(5) Laoshi song-le [xie pingyu ] [pp gei mei-ge xuesheng].
   teacher give-ASP some comment to every-CL student
   ‘The teacher gave some comments to every student.’
   \( \exists > \forall, \forall > \exists \) (preferred)

We examine three potential accounts of the Mandarin ditransitive facts. Under Bruening (2001), scope-rigidity is a Superiority effect reflecting structural asymmetry among arguments, which implies that the two internal arguments in Mandarin PPDs must be symmetric. This view is dubious on current accounts of probe-goal relations and the Mandarin vP. Under Aoun & Li (1993), the possibility of inverse in a scope-rigid language is the result of movement, with the moved item interpretable in either site. This implies an analysis of (3a) as in (6). This view is also dubious on current accounts of the Mandarin vP.

(6) Laoshi song-le [liang-ben shu] [pp gei mei-ge xuesheng] [liang-ben shu].

Finally, under Antonyuk (2015), scope freezing in a scope-fluid language is the result of raising one QNP over another to a c-commanding position, fixing scope. This account can be implemented in Mandarin if PPDs are underived (and hence ambiguous) and DOCs involve raising of the indirect object, as proposed recently by Zhang & Larson (2016) (7):
This analysis implies that Mandarin is in fact scope-fluid, like English, with apparent scope-rigidity as the product of widespread argument displacement. We revisit the passive alternation in (1a, b) in this light, exploring the idea that (1b) is actually underived, and that the subject has raised in (1a) fixing its scope.

Revisiting Mandarin Pseudo-ditransitive Verbs
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In this paper I argue that the internal argument order of Mandarin pseudo-ditransitive verbs observed by Lin et al. (1998) is only apparent based on the new evidence from Sinica Corpus. Syntactically, Mandarin pseudo-ditransitive verbs take one external argument and two internal arguments. However, different from typical ditransitive verb such as *gei* (‘to give’) where we find both postverbal internal arguments, one of the internal arguments of pseudo-ditransitive verb has to stay preverbally. For example, the preverbal argument can be introduced by *ba* (‘BA’) in a *ba* construction. Two major internal argument orders of Mandarin pseudo-ditransitive verbs summarized by Lin et al. are as shown in (1) and (2) respectively. Some pseudo-ditransitive verbs have the internal argument order in (1), while others have the order in (2).

(1) Zhangsan *ba* beizi zhuangman-le shui. (Goal-Theme)
Zhangsan BA cup fill-full-ASP water ‘Zhangsan filled water in the cup.’

(2) Zhangsan *ba* bi shoujin-le shubao. (Theme-Goal)
Zhangsan BA pen put-in-ASP book-bag ‘Zhangsan put the pen into the book bag.’

Nevertheless, from the search in the Balanced Corpus of Academic Sinica, I have found out that the internal argument order of certain pseudo-ditransitive verbs is not fixed. For example, in addition to the order in (1), the internal arguments of pseudo-ditransitive verb *zhuangman* (‘to fill with’) can have the opposite order in the BA construction as in (3). In other words, the internal arguments of *zhuangman* can also have the same word order as those of *shoujin* in (2).

(3) Zhangsan *ba* shui zhuangman-le beizi. (Theme-Goal)
Zhangsan BA water fill-full-ASP cup ‘Zhangsan filled the cup with water.’

The current observations lead to the following two consequences: Firstly, this internal argument order alternation of *zhuangman* is reminiscent of the well-known locative alternation verbs such as *load* or *spray* in English (Levin 1988, Pinker 1989 and so on), as shown in (4). However, what is unique in Mandarin pseudo-ditransitive verbs such as *zhuangman* is that no prepositional phrases are required to introduce the Goal or Theme argument. Note that *ba* has been argued to be a light verb (Huang 1997, Lin 2001) or a head in a *ba* projection (Li 2006). Secondly, it is suggested that Mandarin pseudo-ditransitive verbs should be re-categorized. One subgroup shows locative alternation, while the other subgroup has only the Theme – Goal internal argument order. As shown in (5), the opposite order is simply not acceptable.

(4) a. John loaded books [*pp in the car*]. b. John loaded the car [*pp with books*].
(5) *Zhangsan ba* shubao shoujin-le bi. (Goal-Theme)
Zhangsan BA book-bag put-in-ASP pen

The influence of structure and transparency on compound word recognition in Chinese:
Evidence from the transposed-character effect
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Compound words are at the crossroads between monomorphemic words that are simply memorized and sentences that are computed online. Thus, the study of how compounds are processed provides important insight into the interplay between storage and computation during online language processing (Libben, 2006). Although some evidence suggests that the processing of compounds can be influenced by a number of factors including morphological structure and semantic transparency, the exact way these factors account for the lexical access of
compounds remains unclear. Additionally, most studies investigating compound processing focus on languages that do not have compounding as their primary word formation device (e.g., English); more evidence is needed from languages that use compounding as their primary word formation device (e.g., Chinese) to discern universal processing routines and cross-linguistic differences in visual word recognition. Methodology-wise, previous studies have been largely limited to isolated words in the masked priming paradigm and its variations (Bertram et al., 2011).

This study addressed these issues by using a lexical decision task and a sentence reading experiment with eye-tracking to explore how morphological structure and semantic transparency influence the processing of Chinese compounds. By transposing the characters in bigram subordinate compounds (e.g., 晚饭 evening-meal, “dinner”) and coordinative compound (e.g., 父母 father-mother, “parents”) that vary in terms of semantic transparency (e.g., 晚饭 evening-meal, “dinner”, transparent; 银河, silver-river, “Milky Way”, opaque), the study used the transposed-character effect as an index of morphological processing. The absence of the effect (i.e., slowed reading times in response to transposed primes and targets) would signal morphemic activation, whereas the presence of the effect (i.e., facilitation of reading times in responses to transposed primes and targets) would suggest the activation of whole-word representation.

In Experiment 1, 33 Chinese native speakers completed a primed lexical decision task, in which there were three types of primes (i.e., identical, transposed, and unrelated) and compound targets that varied in terms of structure (i.e., subordinate and coordinative) and transparency (i.e., transparent, partial, and opaque). The findings indicate that both whole-word representations and morphemic representations are activated in compound recognition, and that morphological structure, semantic transparency, and bigram mutual information all modulate the processing of compounds. In Experiment 2, 40 Chinese native speakers completed an eye-tracking experiment, in which the same compound targets were embedded in low-constraint sentence contexts. Consistent with the results of Experiment 1, Experiment 2 shows that both whole-word representations and morphemic representations are activated during compound recognition, and that morphological structure, semantic transparency, and bigram mutual information all influence the lexical access of Chinese compounds. By comparing the early and late measures, Experiment 2 also showed that structure effects occur earlier than transparency effects, and they interacted at the later stage of word recognition.

These results suggest that the representations of Chinese compounds are augmented with structural and semantic properties in the mental lexicon, and that structure is processed before semantics in visual word recognition. For subordinate compounds in which the structural relationship between constituent morphemes is critical for lexical access, morphemic representations are activated regardless of semantic transparency. On the other hand, for coordinative compounds, in which the structural relationship between morphemes is less informative, morphemic activation may not be obligatory for semantically opaque compounds.

**Sino-Turkic and a fuller realization of the rhetorical power of medieval poetry**

An-King Lim

When Turkic-speaking Tabghatch conquered China in 386 CE and ruled the central plains for nearly two hundred years, they left a legacy of governance institutionalized in the systems of government practiced in the ensuing Sui and Tang dynasties. However, most would not think of Tabghatch to have any major contribution to the Chinese language. Language of the Sino-Turkic sort would be the least expected in the minds of a normal Chinese or a Chinese aficionado. This article shall make a case for the genesis and the enduring presence of Sino-Turkic in the Chinese language via historical documents, focusing on poems of the Tang and Song dynasties. It shall demonstrate that at least the following Mandarin functional elements have all rooted from Turkic:

various forms of 了 、 de 的、 de 得、 di 底、 tou 頭、 lai 來
particles ma 嘛、 ma 嘛、 ge 個、 qia 恰、
dative case gei 給、 qu 去、 xiang 向
ablative case and denominal verbal formative da 打,
instrumental case na 拿
Recognizing the Turkic etymons of these functional elements and how they were meant to be used in their prototypical forms would help crystalizing the intrinsic meanings of these elements. This makes it possible to grasp the contents succinctly with unambiguous clarity and makes it possible to appreciate their full rhetorical power in many of the poems of the Tang and Song dynasties. It reminds us that things written in Chinese are not necessarily of Chinese and it also reminds us how well-versed in Sino-Turkic were the medieval poets.

**Shenme as a Kind Classifier**

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1. **Introduction**  
Contrary to the previous claim that the *wh*-indefinite *shenme* as a (negative) polarity item is prohibited in positive declarative sentences (Huang 1982, Li 1992, Cheng 1991, 1994, Lin 1996, 1998), I found that *shenme* can appear in positive sentences as long as it follows a numeral and a classifier. In this construction, however, *shenme* gives rise to an epistemic effect that the speaker is ignorant about the at-issue subkind of the common noun after *shenme*. Sentence (1) is an example of this reading.

(1) Zhangsan mai le san ben shenme shu  
Zhangsan buy perf three CL what book  
Zhangsan bought three books of the same kind, (but I don’t know what kind they are).

Based on this fact, I propose that *shenme* is a kind classifier in the sense of Kratzer (2008). It partitions the following common noun into its subkinds.

2. **Proposal**  
*Shenme* takes a kind noun (Krifka, 1995) and returns a set of subkinds of that kind. An anti-singleton subset selection function (Alonso-Ovalle and Menéndez-Benito, 2010) selects a subset from the set of subkinds before the numeral *n* and the individual classifier further select *n*-many individuals from a selected subkind. The semantic meaning of sentence (1) is shown below.

\[
[[\text{Zhangsan mai le san ben shenme shu}]] = \exists x [f(\lambda y. \text{kind}(y) & y \Pi (\text{book}))(x) & \exists z [z \Pi x & |z| = 3 & \forall d \in z [\text{mai}(d)(\text{Zhangsan})]]]
\]

presupposition: anti-singleton(\(f\))

‘There is some subkind of book \(x\), and there is a set of individual books \(z\) in \(x\), and the cardinality of \(z\) is 3, and for each individual book in \(z\), Zhangsan bought it, and the speaker wants to signal that the set of subkinds \(x\) belongs to is not a singleton.’

The function of *shenme* in partitioning the common noun into subkinds is evidenced in the answer to a *shenme* question.

(2) Q: Zhangsan zuotian mai le san ben shenme shu?  
Zhangsan yesterday buy perf three CL what book  
What kind of three books did Zhangsan buy yesterday?  
A1: Waiguo xiaoshuo. (Foreign novels)  
A2: Aoman yu pianjian, hongzi he laoren yu hai. (Pride and Prejudice, Scarlet Letter and The Old Man and The Sea)

Answer A2 is felicitous, but answer A1 is preferred. By listing the book names, A2 entails A1, thus the felicitousness.

In negative sentences, if the numeral + classifier is present before *shenme*, the same epistemic effect arises, that is, the speaker is ignorant as to the subkind of the books.

(3) Zhangsan mei mai san ben shenme shu  
Zhangsan Neg buy three CL what book
There were three books of the same kind that Zhangsan didn’t buy, (but I don’t know what kind they are). If the numeral + classifier is absent, we get the ‘none’ reading.

(4) Zhangsan mei mai shenme shu

I argue that the anti-singleton function $f$ is only activated when numeral + classifier is followed by *shenme* since the selection of subkind has to precede the selection of individuals after *shenme* partitions the common noun. However, when numeral + classifier is absent, $f$ is not needed. We compose the sentence meaning using the Hamblin semantics of indefinites (Kratzer and Shimoyama, 2002). Sentence (4) thus means Zhangsan didn’t buy any kind of books, which entails that Zhangsan didn’t buy any individual book.

**Interface of syntactic and prosodic domain in Shanghainese**

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This study investigated: a) how the Shanghainese (SH) prosodic groupings are constructed; and b) whether the SH syntax plays the role in constructing the SH prosodic phrases.

SH prosody has two features. First, each SH syllable has one lexical tone, which is composed of two pitch heights. Each pitch height is traditionally marked in numbers from 1 (lowest) to 5 (highest). Altogether SH has five tones. Second, the SH tone sandhi leads to the change of the syllable’s lexical tone if it is not in the initial position of the tone sandhi domain. Besides, the tone of the sandhi domain is the lexical tone of the syllable in the initial position plus an extra low pitch height. I will call such sandhi domain as the prosodic phrase (P). Then one research question is that: given a stream of SH speech, based on what principles are SH’s prosodic phrases constructed?

I proposed four hypothetical principles to answer this question. First, the left edge of the maximum projection should coincide with the left edge of P ($ALIGN-L, X^{max}$). Second, determiner phrase (DP) is the only maximum projection that allows the deletion of the prosodic boundary on the left edge of its phrase initial syllable. Third, the head of quantity phrase (QP) needs to be raised to the DP head so that its left edge prosodic boundary could be eliminated and it can be combined to the preceding P. Fourth, $ALIGN-L$ cannot be applied to the light verb phrase (i.e., SH light verb functions both like a verb and a proposition) unless there is no C-command relation between the head (light verb) and its preceding maximum XP (see example in (1)).

(1)

| Mandarin | 张三 送 两本 书 |
| SH IPA   | [ʦɑ.sɛ] [sɔŋ lia.pən] [sɿ] |
| English gloss | Zhangsan give some Classifier book |
| syntactic structure | [IP Zhangsan[VP give[DP some Classifier [QP [NP books]]]]] |
| prosodic phrase structure | [Zhangsan] [give some Classifier] [books] |
| English translation | Zhangsan gives some books |

The data used in this study were recorded by 20 SH native speakers aging from 18 to 45. They read 20 SH sentences that contained the syntactic structures that were proposed to influence the SH prosodic phrase structure, and the sentences’ prosody was analyzed based on both the automatic pitch analyzer in PRAAT and the researchers’ judgment. After the production test, the participants listened to another 20 SH sentences and interpreted the sentences’ meanings. This was aimed at testing if the prosodic phrases predicted by the principles I posited could correctly convey the meaning that was intelligible to the SH native speakers.

**Offensive lexicon in Chinese as evidence of intra-cultural semantic variation**

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Rude and coarse as offensive words may sound, they exist for a reason and speakers use them for a reason.
Even if offensive words are indeed among those “unmentionables” of language (Fleming & Lempert 2011), people still “mention” them for time to time because, presumably, these words encapsulate something culturally significant or functionally important. In fact, in Tien (2015: 164), it was through semantic and cultural analyses of a selection of offensive words in Chinese Hokkien that offensive words were shown to “represent a fascinating and compelling source of enquiry, richly packed with cultural information waiting to be discovered”.

In Chinese, offensive words can prove to be every bit as compelling and as convincing as any other lexical examples in substantiating lexico-semantic variation which takes place within different dialects or varieties. Such a variation may occur, for instance, when the meaning of a given word form changes, when a word form for a given meaning changes or when more than one different word forms appear for a given meaning. Documenting and analysing lexico-semantic variations make interesting revelations about the social, cultural or functional rationale driving at the “inconsistencies” within Chinese intra-cultural contexts i.e. contexts involving Chinese in different dialectal or variety settings.

In this paper, we examine offensives words pok gai lit. ‘lie dead on the street’ in Cantonese, wa kao lit. ‘oh cry’ and wa lau lit. ‘oh penis’ (or its variants) in Hokkien as case studies demonstrating lexico-semantic variation. In Hong Kong, pok gai is, without question, an offensive word used to tell someone where to go. In Singapore, however, the same word seems rather harmless in the sense that someone can call him/herself as being in this way if s/he runs out of money. While wa kao and wa lau are both Hokkien words, wa kao ‘oh crap!’ originated in Taiwan whereas wa lau and its variants are unique to Singapore. Wa kao, apparently, has roots which go back to its Mandarin counterpart which, in turn, is a kind of an abusive “fxxx” word. Tracing back to its roots reveal various versions of the word, with some of these still in current use, which are all semantically related yet which serve slightly different social or functional purposes. Wa lau ‘oh penis!’, on the other hand, is an indigenously Singaporean offensive word which is not as typically found in other Chinese-speaking communities.

Semantic analyses based on the Natural Semantic Metalanguage (NSM) framework was performed on the offensive words pok gai, wa kao and wa lau in order to establish their cultural or functional underpinnings. The NSM is, in principle, a reductive approach to meaning which makes use of 65 or so semantic “primes” in an attempt to elucidate, as well as to represent, the meanings of culture-laden concepts, as are offensive words. NSM explications of the meanings of these offensive words precisely pinpointed where lexico-semantic variations or inconsistencies occur among the different Chinese dialects or varieties. Implications of the findings for applied Chinese linguistics will be discussed.

A Survey of the Cambodia Chinese Diaspora
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There has been a Chinese population in Cambodia for at least 500 years and contact with Cambodia was mentioned by the eminent China emissary Zhou Daguan (Customs of Cambodia) as early as 1296 during his travels there. Despite a relatively high degree of integration into the majority Cambodia culture, ethnic Chinese have maintained their own social organizations, news media, and schools. The Cambodian Chinese population is organized around five Huiguan (会馆) ‘congregations’ corresponding to the southern-origin Chinese groups that comprise it: Chaozhou 潮州会馆, Cantonese 广肇会馆, Hakka 客属会馆, Fujian 福建会馆, and Hainan 海南会馆. Until the Khmer Rouge forced closure of Chinese schools in the mid seventies, the language of Chinese education followed the dialects of each association. However, in recent times Mandarin has become the lingua franca of the Sino-Cambodia community, though among ethnic Chinese there are few if any native speakers of any sort of Mandarin.

Through examination of survey data and recorded interviews, this presentation sketches a picture of the contemporary Chinese community in Cambodian and outlines some of the language change occurring by contact with the majority Khmer language. The paper gives special attention to examples from the local Cantonese and to Hakka.
That which we call “Chinese”:
Socio-cultural meanings associated with language names
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Names for language varieties often carry sociolinguistic meanings and cultural significance (Léglise and Migge 2006). The significance behind the many names for Modern Standard Chinese (MSC) in MSC, such as Zhōngwén 中文 “language of the Middle Kingdom”, Pǔtōnghuà 普通话 “common speech”, Guóyǔ 国语 “national language”, Hàn yǔ 汉语 “language of the Han tribe”, and Huáyǔ 华语 “language of the Chinese”, is understudied. While these names have different historical roots (Norman 1988, Mair 1991, Chen 1999), it remains unclear how their usages and (socio-)meanings differ across different locales. The current study used a corpus of Chinese microblog messages (van Esch 2012) to identify themes and contexts that are commonly associated with these names. The results showed that some of these names are associated with specific topics, such as promotion and standardized testing of MSC, as well as MSC's competition with local varieties. Variations in usage of these names reveal that these names for “Chinese” are not synonymous at all. Rather, they carry different sociolinguistic meanings and cultural significance across different “Chinese” locales, and highlight their differences in language ideologies.

Portion of the Leiden Weibo Corpus (van Esch 2012) was used in this study, including 12,414,399 words from Beijing, where mostly MSC is spoken; 28,752,336 from the Guangdong Province of China, where local Cantonese is used as much as MSC (Wang & Ladegaard 2008, Zhu 2014); and 5,425,524 words from outside of China. Five names for MSC (Zhōngwén, Pǔtōnghuà, Guóyǔ, Hàn yǔ, Huáyǔ) were identified in the corpus. Words were extracted if they appeared within three preceding or following words from the names more than three times. Relatedness between the extracted words and the names were then quantified as mutual information scores (Evert 2009). Words that are most related to each name are then used to identify the contexts where the names are used, and to deduce the socio-cultural meanings of the names.

For all three locales, Hán yǔ is associated with the standardized proficiency test of MSC, while Huáyǔ is used to discuss Mandopop music. Guóyǔ is used more often in China (Beijing and Guangdong) than outside of China, and is frequently used to denote movies dubbed in MSC (e.g. 国语中字 “MSC dubbed, with Chinese subtitles”). There is no clear topic that Zhōngwén is associated with across the three locales, suggesting that Zhōngwén is used as a topic-neutral term. Pǔtōnghuà in Beijing is highly associated with words such as 标准 “standard”, 语言 “language”, and 讲 “speak”, and appears to be related to the promotion of MSC as the national language of China. Pǔtōnghuà in Guangdong, however, occurs near 广东话 “Cantonese language”, 王八蛋 “bastard”, and 广东人 “Guangdong resident”, providing hints to the competition between MSC and local varieties in Guangdong (Wang & Ladegaard 2008, Zhu 2014).

In sum, the current study quantified the differences in the contexts where names for “Chinese” appear. Certain names are used for general (Zhōngwén) and specific topics (Guóyǔ, Hán yǔ, Huáyǔ). Other names are related to language planning and the competition between national and local languages (Pǔtōnghuà vs Cantonese). The results reaffirm that names for languages are important carriers of cultural identities and language ideologies, which can be observed under the current big data approach.

汉语跨方言视角下基于反复义的动词重叠式研究
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在世界语言中，动词重叠式的表义类型主要有两种。一种类型是以反复义为原型的大量义，还包括惯常义、周遍义、强调义等，这种类型广泛存在于汉藏语系、甚至阿尔泰语系和南岛语系中。该类型的认知基础是，象似性的句法临摹，用音节的重复变现动作的反复。另外一种类型是尝试和随意义，在汉藏语系中的许多语言都有出现。我们认为该类型是利用语音的重复体现缓和委婉的主观语气。上古汉语属于第一种类型，而现代汉语中以北京话为代表的北方方言则主要属于第二种类型。古今汉语这种类型的转变主要推动力是双
音化的趋势以及动补结构的建立。

由于语言发展的不平衡性，造成了南北方方言在动词重叠式上体现出一系列差异。本文的研究对象是保留了上古汉语反复义动词重叠式的汉语方言，讨论在这些方言中动词重叠式独立的演化过程，以及所表达的体范畴类型。汉语方言中的动词重叠式可以表达三类体范畴，动量体、阶段体、视点体，前两者都是主要动词的重叠形式，而后一种式从属性动词的重叠形式，一般不能单独用作谓语。

方言中动词重叠式表现的动量体主要有反复义、周遍义、过程义，周遍义和过程义都是以反复义为基础，周遍义是动作的反复在复数主宾语上的扩展，如泉州话“赶赶出去”、厦门话“钱用用去咯”，而过程义是动作的反复在发生过程中的体现，如温州话“水从上面倒倒落”、泉州话“水漏漏落来”、苏州话“讲讲明白”，而其编码形式都是VVC结构。这种现象不是孤立的，Abbi（1992）指出，在南亚诸多语言中，动词词根和连接成分(conjunction participle)后缀的重叠形式也体现反复义，这种反复体的重叠形式作为副词性成分出现在主要动词前，体现的两个事件之间的语义关系是，某种反复的行为事件产生某种结果，或者某种行为事件所采用的方式。

反复和持续是一对在认知上相关的概念，动词重叠式在许多方言中可以分别表现三种类型的不同，前两种持续义的编码形式基本一致，主要区别是动词情状类型的不同，前者动词表示动作过程有明确的终止点，动作完成后还有一个持续的遗留状态，如泉州话“门开开”、温州话“屋底有一张画贴贴搭”、昆明话“门锁锁着”；后者动词表示一个动态性的过程，而应用于动词重叠式表示状态的持续，动态性减弱，在功能上与形容词类似，如南京话“一路走还小调哼哼的”、四川话“痛得扯一扯的”等，其编码形式都是VVC结构。这种现象不是孤立的，Abbi（1992）指出，在南亚诸多语言中，动词词根和连接成分(conjunction participle)后缀的重叠形式也体现反复义，这种反复体的重叠形式作为副词性成分出现在主要动词前，体现的两个事件之间的语义关系是，某种反复的行为事件产生某种结果，或者某种行为事件所采用的方式。

反复和持续是一对在认知上相关的概念，动词重叠式在许多方言中可以分别表现三种类型的持续，一是动作完成后遗留状态的持续；二是动态持续的持续；三是动作将要发生前状态的持续。前两种持续义的编码形式基本一致，主要区别是动词情状类型的不同，前者动词表示动作过程有明确的终止点，动作完成后还有一个持续的遗留状态，如泉州话“门开开”、温州话“屋底有一张画贴贴搭”、昆明话“门锁锁着”；后者动词表示一个动态性的过程，而应用于动词重叠式表示状态的持续，动态性减弱，在功能上与形容词类似，如南京话“一路走还小调哼哼的”、四川话“痛得扯一扯的”等，其编码形式都是VVC结构。这种现象不是孤立的，Abbi（1992）指出，在南亚诸多语言中，动词词根和连接成分(conjunction participle)后缀的重叠形式也体现反复义，这种反复体的重叠形式作为副词性成分出现在主要动词前，体现的两个事件之间的语义关系是，某种反复的行为事件产生某种结果，或者某种行为事件所采用的方式。

在方言中，动词重叠式作为一个小句或者主要动词的修饰性成分，还可以表示背景义和伴随义。当具有动态性的动词使用持续体会减弱其动态性，我们认为这是持续体向伴随、背景义演化的认知基础。重叠式作为一个小句，体现持续的背景信息，而后一小句体现发生的新信息，如贵阳话“省倒省倒嘞用钱”、宁波话“一只黄狗翘记翘记来”、广州话“佢趷下趷下噉行入嚟”等。在方言中，动词重叠式作为一个小句或者主要动词的修饰性成分，还可以表示背景义和伴随义。当具有动态性的动词使用持续体会减弱其动态性，我们认为这是持续体向伴随、背景义演化的认知基础。重叠式作为一个小句，体现持续的背景信息，而后一小句体现发生的新信息，如贵阳话“省倒省倒嘞用钱”、宁波话“一只黄狗翘记翘记来”、广州话“佢趷下趷下噉行入嚟”等。在方言中，动词重叠式作为一个小句或者主要动词的修饰性成分，还可以表示背景义和伴随义。当具有动态性的动词使用持续体会减弱其动态性，我们认为这是持续体向伴随、背景义演化的认知基础。重叠式作为一个小句，体现持续的背景信息，而后一小句体现发生的新信息，如贵阳话“省倒省倒嘞用钱”、宁波话“一只黄狗翘记翘记来”、广州话“佢趷下趷下噉行入嚟”等。在方言中，动词重叠式作为一个小句或者主要动词的修饰性成分，还可以表示背景义和伴随义。当具有动态性的动词使用持续体会减弱其动态性，我们认为这是持续体向伴随、背景义演化的认知基础。重叠式作为一个小句，体现持续的背景信息，而后一小句体现发生的新信息，如贵阳话“省倒省倒嘞用钱”、宁波话“一只黄狗翘记翘记来”、广州话“佢趷下趷下噉行入嚾”。

A HPSG analysis of non-sentential coordination with he/gen/yu/ji/tong in Mandarin Chinese

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This paper makes two major points: on one hand, it exhibits syntactic and semantic constraints of non-sentential conjunctions in Mandarin Chinese: he/gen/yu/ji/tong; on the other hand, some HPSG analyses appropriate for these conjunctions are proposed.

Compared to conjunctions in other languages, the distribution of the conjunctive markers in Mandarin is sensitive to the parts of speech of the conjoined terms (Sybesma et al. 2015). For instance, while he/gen/yu/ji/tong can coordinate nouns (1), only he/gen/yu can coordinate absolute adjectives (2), and he/yu can coordinate non-finite verbs (3).

(1) [Xiaozhang, [laoshi], he/gen/yu/ji/tong [tongxuemen] yiqi kanwang-le ta. president, teacher and classmate together visit-PRF him/her

(2) Zhe-liang-ge qizi fenbie shi [hongde] he/gen/yu/*ji/*tong [lande].
these-two-CLA flag respectively are red DE and blue DE

(3) Ta xihuan [tan gangqin] he/*gen/yu/*ji/*tong [tiao saersa].
S/he likes play piano and danse salsa.

Conjunctions usually have two readings, a boolean reading (John and Marie have blue eyes) and a non-boolean reading (John and Mary are a nice couple). He/gen/yu/ji/tong can be used with both collective predicates (4) and distributive predicates (5), while ji is only compatible with distributive ones (4,5).

(4) Zhangsan he/gen/yu/ji/tong Lisi dou hen congming.
Zhangsan and Lisi all very clever.
Zhangsan and Lisi be brother.
The boolean reading is allowed in all domains, whereas, apart from nouns, the non-boolean readings are confined to color predicates and material adjectives where the predicate is singular (Winter 1998). However, the non-boolean interpretation is unavailable for Mandarin Chinese adjectives (5).

(5) *Na-ge-qizi shi hongde he/gen/yu lande.
that-CL-flag is red and blue.

In previous studies, some HPSG treatment of coordinated phrases and conjunctions has been proposed, for languages such as English and French. The coordinated phrase is analyzed as a n-ary unheaded phrase (Sag et al. 2003), and coordinating conjunctions are analyzed as “weak” heads (Abeillé 2005), inheriting most of their syntactic features from their complement.

A crucial problem for Mandarin Chinese is how to represent the semantic and syntactic variation in HPSG analysis. It is impossible to propose a unified schema for all conjunctions like in English and French, but it will be rather tedious if we define different lexicon entries for each one. In HPSG, words and phrases are organized in a hierarchy of types. In this article, we organized conjunctions into a type hierarchy with a cross classification of syntactic and semantic properties.

Tense Restrictions in Mandarin Chinese: Evidence from Aspect and Focus
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As a language without overt tense morphology, it is controversial whether Mandarin Chinese has syntactic tense. For example, Lin (2006, 2010) argues that not only does Mandarin not have semantic tense, Mandarin does not have a T(tense) projection either, contra Sybesma (2007). In this paper, I argue that not only does TP exist in Mandarin, tense features play an observable role in the syntax. I draw from evidence that properties of aspect and sentence-internal focus can be accounted for only if we posit their interactions with covert tense features.

Lin (2006) gives a semantics for -le and -guo that denotes both past tense and perfective aspect. I show that the interaction between tense and aspect can be syntactic as well: although readily compatible with a present and past time, progressive zai is incompatible with future time, using the temporal adverb mingtian ‘tomorrow’ (1). (This example would become grammatical if we replace mingtian with a present/past temporal adverb.)

(1)*Mingtian keren lai de shihou wo zai zhunbei wanfan.
tomorrow guest come DE time I PROG prepare dinner
intended: ‘When the guests come tomorrow, I will be preparing dinner.’

To account for (1), we might encode zai’s temporal restrictions in the semantics, but non-future morphemes are hardly attested crosslinguistically (Comrie 1985). Instead, a more viable approach would be to restrict zai from occupying AspP when a future-tense feature occupies T.

I propose that T is valued with a tense feature via tense agreement with a temporal adverbial (Sybesma 2007). After T gains the [future] feature, T can no longer select for an AspP headed by zai. Without this tense agreement operation, we would not be able to explain why zai is not licensed in (1).
Further evidence that perfective -le and -guo carry past tense while zai does not carry tense comes from sentence-
internal focus, a position between the subject and the verb to which the object may prepose (Hsu 2008). I show that, in
simplex clauses, this construction exhibits syntactic tense restrictions. Sentence-internal focus occurs with perfective-
marked predicates (2a), but not with unmarked predicates or with non-perfective aspectual markers (2b):

(2) a. Wo pingguo chi-le/guo.
   I     apple      eat-PERF/EXP
   ‘An apple, I ate.’

   b. Wo pingguo (*zai)(*-zheng)/(*-∅).
      I     apple     PROG eat-DUR/NULL
      intended: ‘An apple, I am eating.’

(2b) does not improve when an overt temporal adverbial is included, suggesting that FocP is not sensitive to the tense
feature on T but rather to the identity of Asp, namely tensed Asp. I adopt Lin’s past-tense semantic analysis for
perfective le and guo and claim that these semantically tensed morphemes also syntactically carry [past], just like
temporal adverbials.

With such an account, the restrictions on sentence-internal focus in simplex clauses can be neatly explained: sentence-
internal FocP selects for a tense feature on AspP, i.e. perfective aspectual markers. Sentence-internal focus is also
available with modals like hui and yao, possibly suggesting that Mandarin modals carry tense features as well.

Using novel evidence from Mandarin, I show that an account in which T obtains tense features via agreement with
tensed morphemes allows us to account for restrictions on sentence-internal focus as well as temporal restrictions of
the aspect marker zai. Thus, syntactic tense is active in Mandarin Chinese.

Is Mandarin Chinese Tensed or Tenseless?
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University of Southern California

Synopsis The talk begins with the explication of two criteria on “tenselessness”. The semantic criterion, compared
with the morphological one, fares better with the semantic-syntax interface and cross-linguistic investigation on
superficially tenseless languages. We use this narrow criterion to evaluate previous works on Mandarin Chinese (MC),
concluding that MC has semantic tense, a non-future temporal pronoun, which substantiates INFL projection in
syntax.

Two criteria for tenselessness
a. The broad criterion: a language is tenseless iff it does not have paradigmatic expressions that convey the temporal
relation between the reference time and the utterance time.

b. The narrow criterion: a language is tenseless iff it does not have obligatory element in the Logical Form (LF) that
restricts the reference time.

According to the criteria above, J.-W. Lin (2003, 2005, 2010) is actually a tensed approach to MC, although the
existence of T node in MC is rejected, because the semantic definition of perfective includes a restriction that the
reference time precedes the utterance time. T.-H. Lin (2015) explicitly argues for the existence of T node in MC
syntax. However, as there is no presupposition for the proposed temporal pronoun under T node, it leads to incorrect
semantic derivation. Smith and Erbaugh (2005) is a true tenseless approach, as they argue that there is no element like
tense in English that encodes the relation between reference time and utterance time.

Non-future temporal pronoun for MC Referring to Matthewson’s (2006) approach to St’át’imcets, we proposes that
in MC, a non-future temporal pronoun regulates the relation between utterance time and reference time, based on the
following arguments. (i) Zero-marked sentences cannot be used to express future event, nor does adding a future-
oriented adverb help. In fact, except for the scheduled event and irrealis context, sentences in MC cannot express
future meaning without relying on modal predicates like hui “will”. (ii) Hui is not an epistemic modal meaning
“might”, because instead of expressing epistemic possibility in present or past reading, hui “will” always adds the
future reading. (iii) Hui can be analyzed on a par with English WOLL, originally proposed by Abusch (1985) for
English. The definition of the non-future temporal pronoun in (2) derives the truth condition while avoiding
overgeneralizations. The non-future temporal pronoun restricts the reference time in MC sentences, and can arguably
be viewed as substantiating the INFL head.
(2) \([[\text{TENSE}_i]]^\varepsilon\) is only defined if no part of \(g(i)\) is after \(t\). If defined, \([[\text{TENSE}_i]]^\varepsilon = g(i)\).

**Conclusion** Hypothetically, every language has certain temporal pronoun that restricts the relation between reference time and utterance time. The variation could be how many tense pronouns a language has. The temporal pronoun can be posited under the INFL node in syntax. The legitimacy and validity of INFL in MC puts the pursuit of this study in line with Ritter and Witschko’s (2014) argument that INFL is a universal category with varied substantive content.

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**臺灣四縣客家話的共時變體**

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根據過去對台灣客家話的分布調查，本文描述並分析四縣客家話的語音變異，並嘗試進一步探討變異的可能規律。四縣客家話和海陸客家話是臺灣較多人使用的客家話，以臺灣北部桃竹苗客家人口聚居地為例，其中四縣客家話在苗栗縣大辛的鄉鎮都居於優勢地位，而海陸客家話則是新竹縣大部分鄉鎮的優勢語言。有意思的是，這兩個腔調的客家話在桃園市則呈現複雜的分布情形。研究顯示，新竹及桃園地區居弱勢的四縣客家話與苗栗的優勢四縣客家話比較，可以看出語音的變異，其中聲調穩定，聲母及韻母各有變化，最明顯的變化發生在舌葉音 \([ʧ, ʧʰ, ŋ, ʒ]\) 的有無。苗栗四縣客家話沒有舌葉音，新竹新埔四縣客家話的舌葉濁擦音 \([ʒ]\) 出現在 \([i, ia, iu, io, ien, it, iam, ian, iet]\) 之前，\([ʧ, ʧʰ, ŋ]\) 呈現不穩定的狀態，小稱詞續不同於苗栗的 \([e]\)而讀為 \([əә]\)。至於桃園居弱勢的四縣客家話則較為複雜，分散分布的新屋四縣客家話語音變異與新竹新埔相似，但有細微差異；集中分布的觀音區新埔四縣客家話的語音變異則較為不同，此地的四縣客家話沒有產生舌葉音 \([ʧ, ʧʰ, ŋ, ʒ]\)，小稱詞續與苗栗相同都讀 \([e]\)，產生變異的是部分韻母，如 \([i]\) 讀 \([ui]\)。這些居弱勢的四縣客家話聲調目前都與苗栗優勢的四縣客家話相同。本文根據語言接觸的現象及不同地域的家戶語言調查成果，論述弱勢語言的語音變化以及可能的規律。

**Adverbial quan: distributing via an encapsulated \(θ\)-role**

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In its adverbial use, the Mandarin Chinese morpheme *quan* exhibits many syntactic and semantic similarities with extensively studied *dou* (1), (Lee, 1986; Cheng, 1995; Lin, 1998; Yang, 2000; Xiang, 2008, i.a.). But *quan* has a more restricted distribution. Tomioka and Tsai (2005) claim it is a domain regulator that ensures a good fitting cover, because, unlike *dou*, it would require a distributive operator in the context, and be out with predicates they say are not intrinsically distributive, cf. (2). Lee et al. (2013) reject their argument, arguing that *buy one* \(x\) has a ‘once-only’ interpretation due to the specificity of the object—as NPs with the numeral ‘one’ tend to have a specific interpretation in Chinese—but *buy five* \(x\) is compatible with *quan*. They propose a double analysis: *quan* is a domain regulator when it cooccurs with a distributive operator, and a universal quantifier when it combines with a collective predicate such as *shi pengyou* ‘be friends’ (3), it quantifies on a domain of degrees such as *quan ping ganjue* ‘completely on feeling’, or it associates with focus. Note that non-affectedness matters more than specific interpretation (4), and that *quan* can force distribution on a singular nominal (5). These facts do not follow from Lee et al.’s proposal, but are accounted for in our unified treatment of adverbial *quan* as event modifier that targets a nominal discharging a \(θ\)-role, in (6).
Quan contributes the dependency encapsulated in the \( \theta \)-role function associated with the targeted participant. It requires the event to be plural, with subevents that are more than one because they are \( \theta \)-associated with the cells of a non-trivial partition imposed on the referent of the nominal. The domain of the distribution relation—the sorting key of Choe (1987)—is made of the cells of the partition returned by the function Part applied to \( \theta(e) \), and the subevents are the codomain, Choe’s share. Encapsulating the \( \theta \)-role (Brasoveanu and Henderson, 2009) helps us to implement a form of homogeneous inner distribution, insofar as no difference among subevents is visible. This captures the intuition of a global predication on the key, called Zhengtixing ‘globality’ by Zhou (2011) or set-prominent property by Lee et al. (2013). Evidence comes from the fact that quan is not acceptable if (1) is modified by gezi ‘separately’. Gezi forces externally visible differentiation among subevents (Yang, 2013). The analysis in (6) also correctly predicts the acceptability of symmetric uses of plural predicates (3). Finally, it covers the combination quan dou, which can be considered as an instance of a phenomenon whereby a distributive element in some sense simply reinforces the distributivity of a clausemate universal quantifier, without contributing anything to the overall truth conditions, as noted for Korean by Oh (2006).

A Usage-based Account of the Emergence and Variation of the Constituent dehua
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This study employs the usage-based theory to examine the emergence of the constituent dehua and its variation in language use. The usage-based theory postulates that constituent structure arises from domain general processes of chunking and categorization, and undergoes graduate change all the time (Bybee, 2006). New constructions are derived from repeated use in actual practice and shaped by discourse (Beckner and Bybee, 2009). Following this approach, I will focus upon the issue of how dehua came into use as a coda to indicate “if” by examining the syntactic and semantic development stages of dehua. I will also examine the current usage pattern of dehua as a conditional marker and explore possible factors that could influence the use of dehua, which either occurs with ruguo/yaoshi or instead of ruguo/yaoshi.

Using data from the Center for Chinese Linguistics, Peking University, I identify four historical stages of the development of dehua. Evidence indicates that the use of dehua appeared in the 16th century but it only became widespread in the early 20th century. Dehua was used in spoken language and then became a chunk by reanalysis due to its frequent use in discourse. The graduate change of dehua shows that simultaneous syntactic and semantic changes result in its grammaticalization.

I use corpus data from Academia Sinica Balanced Corpus of Modern Chinese to analyze the current usage...
pattern of dehua. Findings show that over 90% of the occurrences of dehua functions as a conditional clause marker instead of a topic marker. This trend indicates that the function of dehua as a conditional marker has replaced the original function of a topic marker and become dominant in modern Chinese due to its frequent usage. This phenomenon further supports the usage-based theory, indicating that if one construction acquires a new meaning through discourse and becomes more frequently used, the new meaning will outmaneuver the old one and become dominant.

I also investigate factors that contribute to the use of dehua in conditional sentences. Using corpus from Sinica Corpus Database, our quantitative results show that the usage of dehua significantly correlates with weight and the presence of a verb in the clause. Findings also show that dehua as a conditional marker continues to occur more in the spoken language than in the written language.

**Acquisition of transitivity in L2 Chinese: the case of the ba construction**

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In Mandarin, the ba construction is used to express an object being affected, dealt with or disposed of (Huang, 2009). Previous studies (cf. Li and Thompson, 1989; Sun, 1995; Liu, 2007; Huang, 2009) show that in a grammatical ba sentence, the predicate is telic and denotes a bounded event by attaching an aspect marker to the main verb (e.g. 他把汤喝了) or using a complex predicate (e.g. 张三把李四哭得跳了起来). As for the ba object, it has a specific reading (e.g. 他把那首歌唱了三遍). (cf. Wang, 1954; Li and Thompson, 1989; Liu, 2007; Huang, 2009) Both constraints are captured in the Hopper and Thompson’s Transitivity Hypothesis (1980). According to this hypothesis, the ba construction is a high transitivity clause type and the verbal part and nominal part are both high on the transitivity scale. But do L2 learners acquire the two components at the same time? This is what I would like to find out in this study. My research question is this: do L2 learners know the transitivity requirements on the verbal part and the nominal part of ba sentences equally well?

20 L2 learners participated in a grammatical judgment task where each of the verbal part and nominal part of a ba sentence is well-formed or ill-formed, giving rise to four combinations. The results show three things: in general, L2 learners performed well on grammatical ba sentences such as “小明把球射进了对方的球门” grammatical. When only the verbal part or the nominal part is well-formed, L2 learners did better on sentences with an ill-formed verbal part. For instance, *他把那只淡黄色的小猫爱 was rejected by 89.47% participants. However, *他把不到半瓶的酒喝了, where the nominal part was ill-formed, was rejected by only 26.32% participants. Third, participants’ judgment is affected by input. For sentences with an unfamiliar predicate such as 分析 in ungrammatical sentence *把昨天老师提的那个问题分析 or atypical ba sentences like 把糖当做盐放进汤里, the accuracy of judgments is only 36.84%.

To sum up, the data presented in this study show that although previous studies support the Transitivity Hypothesis which ba construction is a high-transitivity clause type in Mandarin and should have both the verbal part and the nominal part of ba sentences are high on high the transitivity scale, L2 learners do not acquire the two parts at the same time. This may be explained by the input learners receive. In the textbooks more emphasis is placed on the verbal part (e.g. ba often expresses result, indicated by the element following the verb) and many learners understand that the verbal needs to have something besides the verb. However, not much has been said about the nominal part. Thus our findings have pedagogical implications—comparable emphasis on the verbal part and the nominal part will facilitate the acquisition of ba sentences. In addition, input does play an important role in L2 acquisition. These findings can be applied to curriculum design of L2 learning on the ba construction to help L2 learners acquire the ba construction more effectively.

**形声字的声旁也表意吗?**

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本文旨在探索所谓形声字中的声旁是否对整体的字义有所贡献。关于形声字，一般的看法是，形声字是由声旁和形旁构成的字，形旁表意，声旁表声。对于声旁是否对整体的字义有所贡献似乎探讨得不多。本文通过对大量例字来源的审视和分析，显示出相当比例的形声字在创造时要么并不是形声字，要么声旁的选择是有其意义方面的考虑的，从而得出相当数量的形声字的声旁并非只是表声，而是跟整体的字义有着紧密联系的结论，并进一步对如何更准确地定义形声字提出建议。
下面是一些现在被笼统分析为是形声字而实际上包含多种情况的例子。

第一类情况是某些字现在所谓的声旁其实是该字的初文，现在的形旁为后加，起加强或区分词义功能。这类字应该分析为会意字。比如：

帽：帽的初文即冒，在金文中是一个会意字，像眼睛上一顶帽子之形。到了楷书，上边写作曰，仍代表帽子之形。后来因冒字语义延申，遂在旁加上巾字表示其属性。因此该字其实是一个会意字。

箕：箕的初文为其，在甲骨文、金文中为象形字，像簸箕形。后其字借为它意，遂在上面加上竹字头，标明其质地。因此该字其实也是一个会意字。

像帽子这种通过后加义符强化其本意的还有裘、经、尻、栅、抓等。这种情况，所谓的“声旁”表声是必然的。

第二类情况是某些字在造字时，选择的“声旁”既取其声又取其意。比如：

取：取为会意字，意为以手推转山石，所以它的一个基本的引申义为翻转。返取该意并且加上走之底，表示返回之义。该字既是会意字又是形声字。

娶：取为会意字，意为（抓到野兽或战俘时）用手割下左耳。娶字是女和取的会意字，意为获得女子为妻。该字既是会意字又是形声字。

用类似方法创造的字还有垣、植、苹、竿、姓、弦、酒等。

第三类是纯粹的形声字，在这类字中，“声旁”确实只表示该字的发音，与整字的意义无涉。属于这一类的形声字有很多，比如护、妒、饭、姚、挑、理、骼、皓、村、瞪等。

虽然第三类形声字在现代汉字中占有最大的比例，但是第二类的形声字也不在少数。从本文的分析中我们可以看出，形声和会意不是两种互相排斥的造字法，而是可以兼而有之的。这也说明古人在造字选取声旁时，是希望兼顾其意义的。按照这种分析，我也提议今后无论在语言学理论研究还是在对外汉语教学中，可以把形声字分为广义和狭义两种。广义的形声字指一切包含一个代表其整体发音的部分的汉字（包括以上三类），而狭义的形声字仅指该字的声旁只表示其发音而与意义无关的形声字（即以上第三类）。

**Mandarin Logographic Writing System and Auditory Perceptual Simulation during Silent Reading**

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Kiel Christianson, University of Illinois at Urbana-Champaign

Previous studies show that readers perceptually simulate aspects of speakers' speech during silent reading. Yao & Scheepers (2011) observed shorter reading times for direct quotes said by a fast talker compared to a slow talker. Stites et al. (2013) similarly observed faster reading of direct quotes when the adverb describing speech rate as fast than when described as slow (e.g. "John walked into the room and said quickly/slowly, “I finally found my car keys”"). These studies suggest that perceptual simulation can be triggered by explicitly describing the speech rate or the talker's characteristics (e.g. fast vs. slow speakers; native vs. non-native speakers), but leave open the question of whether readers can engage in auditory perceptual simulation (APS) when these cues are absent. In the present study, we manipulated the characteristics of the depicted listener rather than the depicted speaker, specifically, whether the listener was a child or an adult, to determine if readers simulate child-directed speech in the absence of information about the speaker or speech rate.

Native Chinese speakers (n=31) read Chinese sentences from one of four lists containing 28 experimental items and 80 fillers while their eye movements were monitored. Experimental items followed a 2 (adultness: child-directed vs. adult-directed speech) x 2 (directness: direct vs. indirect speech) design. Experimental items shared the same template of “somebody said to a child/an adult, followed by a direct/indirect quote” as in: *I said to the little boy/the young man who liked drawing, (“)the bridge is very well drawn(“)*. The stimuli observed Chinese conventions of punctuation for direct quotes, i.e. direct quotes were preceded by a colon and a quotation mark, and for indirect quotes, which were preceded by a comma. Reading time measures were obtained for the regions of the embedded direct and indirect quotes (i.e., *the bridge is very well drawn*).

LME modeling revealed a significant main effect of adultness (p<0.05) (M difference between child- vs. adult-directed speech = 119ms); the same pattern held for go-past time (p=0.05, M difference = 156ms), showing that
On Complement Coercion in Mandarin Chinese

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This paper aims to reexamine complement coercion in Mandarin Chinese. Pustejovsky (1995) proposes coercion in Generative Lexicon to solve type mismatch. For example, in (1a), the verb begin requires an event-denoting argument, thus the noun a book is coerced from an entity to an event to solve type mismatch.


However, De Almeida & Dwivedi (2008) argue that (1a) is an indeterminate sentence, not exactly equivalent to (1b). To account for the alleged type-shifting effects, they propose that (1a) has an extra VP with a null verbal head V0, illustrated in (2) (adopted from De Almeida & Dwivedi 2008: 315).

(2) \[TP \text{John} \quad \text{T}^0 \quad \text{[P subj \quad v^0 \quad began]} \quad \text{[VP \quad V^0 \quad [VP \quad v_0 \quad e \quad [Obl \quad a \quad book]]]]] \]

In addition to English, it is argued that some constructions in Mandarin Chinese have coercion: event coercion (Song 2011, 2014), classifier coercion (Huang & Ahrens 2003), aspectual coercion (Wang 2008), and locative coercion (Li 2013). The so-called coercion constructions raise concerns that: is coercion overgeneralized in Chinese? Another question is: is coercion necessary in Chinese? Do we have an alternative way to account for the alleged coercion effects in Chinese?

Strictly speaking, Mandarin Chinese has no counterpart of (1a). The aspectual verbs like kaishi ‘begin’ do not have true complement coercion. The plausible complement coercion examples would be sentences generated by shi ‘try’ and gan ‘hurry’, as shown in (3).

(3) a. Ta shi (chuan) le zhe jian yifu. b. Ta zai gan (xie) na pian lunwen.

he try (wear) ASP this CL clothes he at hurry (write) that CL paper

He tried (wearing) this clothes. ‘He is hurrying (to write) that paper.’

To account for the above examples, I follow De Almeida & Dwivedi’s (2008) analysis and propose that verbs like shi ‘try’ and gan ‘hurry’ have an extra VP with a null V head, illustrated in (4). The interpretation of V-ing is derived from pragmatic inference.

(4) \[IP \text{Zhangsan} \quad [v^1 \quad [v \quad t \quad subj \quad v^0 \quad try \quad [VP \quad V^0 \quad [VP \quad v_0 \quad e \quad [Obl \quad this \quad clothes]]]]] \]

Note that English aspectual verbs like begin and try-class verbs both allow an empty V head. Chinese aspectual verbs like kaishi ‘begin’ do not allow a null V0. Such difference may be characterized by different argument structures of verbs in Mandarin Chinese. This paper offers a structural account to explain the alleged coercion effect in Mandarin Chinese. Further studies need to be done to account for other coercion cases.

Changes in Tianjin disyllabic tone sandhi in apparent time

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Four variable disyllabic tone sandhi patterns are traditionally identified in Tianjin (Li & Liu 1985). The
present study focuses on two of these tone sandhi variables, referred to as (FF) and (FL) after their input patterns of ‘falling falling’ (HL, HL) and ‘falling low’ (HL, LL) respectively. The data are drawn from 64 sociolinguistic interviews conducted in Tianjin in 2014-15. In line with other reports (Shi & Wang 2004, Gao & Lu 2003), the study finds that (FF) has decreased in frequency over time, while (FL) has increased in frequency. But the social motivations for the rise and the decline of these variables have not previously been investigated. This study fills an important gap by examining the distribution of (FF) and (FL) by age, sex, style and social class, and by contextualizing the results against Tianjin’s sociodemographic history.

(FF) represents the variable transformation of the sequence HL.HL→LL.HL, i.e. where a falling tone becomes a low tone when it is followed by another falling tone, as in (1). (FL) represents the variable transformation of the sequence HL.LL→HH.LL, i.e. where a falling tone becomes a high tone when it is followed by a low tone, as in (2).

1. HL.HL→LL.HL  jiaoshou “professor”
2. HL.LL→HH.LL  jiaoshi “teacher”

2560 tokens of (FF) and 2560 tokens of (FL) were extracted from the interviews and word lists, and were coded for the application or non-application of the relevant rule, for a total of 5120 tokens in the final analysis. The 64 participants (M= 30, F=34) were aged 18 to 82 years old, and were all native speakers of the local dialect. Interviews were conducted in the dialect. Participants were categorized as ‘middle class’ or ‘working class’ using a combined measure of occupation, education and income.

The results indicate that age has significant influences on (FF) and (FL), while neither gender nor class have strong effects on the variation. (FF) displays a linear decrease of the local variant in apparent time, probably due to the standardizing influence of Standard Chinese, and because of its status as a stereotype (Labov, 1972) of ‘old-fashioned’ Tianjin identity and speech (Han 1993). Speakers of all ages avoid it in the more formal word list style. In contrast, (FL) has increased its frequency enormously in apparent time. (FL) occurs on average only 56.95% of the time among speakers aged 65 or older, but on average 94.41% of the time among speakers under 65, with little evidence of style-shifting.

Why has one traditional local variant become the new norm, while the other has virtually disappeared? Because (FL) has never been stigmatized; it appears to be below public awareness. As such it is available for ‘recycling’ (Dubois & Horvath 2000) as a positive marker of ‘new’ Tianjin identity. By applying the (FL) rule, natives of Tianjin may be linguistically contrasting themselves with the many migrants who have moved to the city in the last three decades. The rise of (FL) coincides well with the history of migration to Tianjin.

**Language Attitudes towards Putonghua and Local Dialect in Guangdong and Hunan**

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The Ohio State University

Chinese dialects have different developments and status in Mainland China. *Putonghua*, as the standard language, is largely promoted by the government. According to Li (2014), the *Putonghua* promotion is overall successful in dialect regions except Guangdong, and it is mainly because there is a regional lingua franca, the standard Cantonese. On the contrary, Xiang dialect, spoken in the nearby Hunan Province, is receiving overcoming influence from *Putonghua*. Although there is no standard Xiang dialect, *Putonghua* with a strong Hunan accent is becoming outstanding nowadays. Younger generation in the capital city of Hunan and surrounding cities can switch between standard and accented *Putonghua* according to whom they talk to.

Many previous language attitude studies are conducted in terms of intergrative and instrumental orientation (Lai, 2005). Integrative orientation focuses on the perspective as a member of the community, and instrumental orientation emphasizes on using the language as tool. This study also uses these two orientations, and focuses on language attitudes towards standard *Putonghua*, accented *Putonghua*, and dialects in Guangdong and Hunan. To minimize the influence of variations within Cantonese and Xiang dialect, only participants who grew up in Guangfu-pian (广府片) in Guangdong and Changyi-pian(长益片) in Hunan were recruited. Data includes 15 participants from Guangdong, age centered on 26-30, and 16 from Hunan with balanced distribution on age of 21-25 and above 40. The gender distributions are balanced in both groups. All the participants were asked to rate statements from 1 (strongly disagree) to 5 (strongly agree). The table below shows the average rating for each category:

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Towards</th>
<th>Guangdong</th>
<th>Hunan</th>
</tr>
</thead>
<tbody>
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<td></td>
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The results showed that participants from Guangdong have stronger preference to their dialect while participants from Hunan are more open to standard Putonghua, and they have more needs for standard Putonghua in reality. Accented Putonghua in Hunan is not merely Putonghua with accent caused by low proficiency in Putonghua; however, it still lacks legitimacy considering the relevantly lower scoring than dialect and standard Putonghua. This study directly presents how natives of Guangdong and Hunan view the languages they are speaking and/or hearing everyday after years of Putonghua promotion. It is helpful in exploring solutions to balance Putonghua promotion and preservation of dialects. Results also point out the specialty of accented Putonghua in Hunan, and call for further studies on this special category of Putonghua.

祈使用法与新兴话语标记的产生——上海方言“好好叫”的发展演变

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吴语上海方言中，副词重叠形式“好好”与词缀“好”连用（读作[ho^3ho^3we^i]，语音弱化形式为“好叫”），存在如下共时用法：1）方式状语修饰动词；2）单独作祈使用法表明说话人态度（其后不附加动词）；3）话语标记（常以语音弱化形式“好叫”出现在自然口话）。依据语料分析，上述用法中的“话语标记”用法出现时期较晚，至今仍处于发展演变的过程中。本文将研究焦点集中于如上话语标记“好叫”，它具备哪些功能？从何种来源形式，又是如何发展演变而来？我们以话语语法（discourse grammar）为研究框架尝试厘清上述问题。具体做法为：分析话语标记“好叫”在共时平面内的多重语用功能；依据不同用法的产生时间与相互关联来推辨功能发展过程与出现的语境，将功能演变与形式发展两者对应；勾勒“好好叫”发展演变的大致脉络并揭示话语标记用法的形成理据。


结合共时用法与演变过程两个维度的讨论提出如下观点：祈使用法与话语标记“好叫”形成了一脉相承的关联性：其一，共时平面三种用法除方式状语外，其它两种用法均句法独立、韵律自足、语义具有非限定性。其二，结合形式与功能两个方面，以祈使用法为源头，以语法化过程为机制，可以合理解释话语标记具备多重语用功能及固定形式的动因。
A construction-based account of the Chinese middle construction
Yue Chen
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Chinese middle construction (MC) has aroused researchers’ attention in recent decade. Scholars have examined Chinese MC from different perspectives (see, e.g., Cao 2004, 2005; He 2005, 2007; Fu 2012). However, no attempt has been made to discuss Chinese MC in the framework of construction grammar. Thus, this paper will provide a construction-based account of Chinese MC to uncover how it expands.

Chinese MC could be schematized as ‘N+V-M (qǐlái)+C’. Since main verb and construction are different predictors of sentence meaning, three elements concerning the middle verb and Chinese MC respectively are examined, viz., argument structure, event type and semantics. Using the above three elements as clues, the expansion path of Chinese MC could be outlined. The prototype of Chinese MC are sentences like ‘...旧碑...看起来唐时开元年间建造’ (It looks like that the old stele was built during Kaiyuan, Tang dynasty) which emerged around 16 AD. The middle verbs in these sentences are transitive sensory verbs with two participant roles (agent and theme). In accordance with the middle verbs, the prototype of Chinese MC could be schematized as ‘N+AG-TH-VSEN-M+C’ which indicates that the construction’s prototypical argument structure contains agent and theme and the construction’s core semantics is to denote human senses. After the formation of Chinese MC prototype, Chinese MC relaxes its restrictive conditions on argument structure and semantics and sanctions more verbs. Thus, transitive verbs with two participant roles other than agent and theme (agent and patient, agent and resultative, agent and instrument, agent and location, agent and dative) are allowed to be middle verbs. In the meantime, verbs which denote action of talking and thinking and have semantic connections with human senses are permitted to appear in Chinese MC. Later, with further relaxation on restrictive conditions, Chinese MC sanctions ditransitive verbs and intransitive verbs and allows verbs with peripheral semantics to appear. At last, Chinese MC relaxed its restrictive condition on event type.

Chinese MC’s expanding path could be viewed as a hierarchy structure which extends horizontally on argument structure and vertically on semantics. The expansion path of Chinese MC reflects three direction characteristics: decrease of compositionality, increase of productivity and increase of schematicity.

‘Theme + Verb’ Construction in Pre-Qin Chinese
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‘Theme + Verb’ Construction (TVC) is one of the oldest constructions in Chinese. Many contentions exist in previous studies surrounding the form and function of it, especially concerning the contrast between ergative verbs that allow TVC and neutral verbs that prohibit TVC. Cikoski’s (1978) influential works proposed that neutral verbs always take agents as subjects, whether there is object or not, like 辟 in (1); whereas ergative verbs take theme-like subjects when objects are absent, but take causers as subject when there are objects, as 免 in (2):

(3)a. 秦子，梁子，以 公 旗 辟 于 下道。(《左传》)
    Qinzi Liangzi with emperor flag dodge at small path
    Qinzi and Liangzi dodge at the small path under the name of the emperor.

b. 将 焉 辟 之? (《左传》)
    will how avoid it
    How to avoid it?

(4)a. 女子 曰：‘君 免 乎?’(《左传》)
    woman say emperor refrain from Ques
    The woman asked: ‘Is the emperor refrained from (the catastrophe)?’

b. 若 从 君 惠 而 免 之…… (《左传》)
    if accept emperor favor Conj. pardon us
    If (you could) accept the emperor’s favor and pardon us …

Set within the framework of construction grammar, and assuming the meaning of constructions and verbs interact in
non-trivial ways, the present study takes a corpus-based approach to explore the form and function of TVC in Pre-Qin Chinese by specifically looking at the verbs in TVC.

In the first step, the present study exhaustively investigates all TVC tokens in the Mencius for a preliminary idea of TVC in Pre-Qin Chinese, and finds TVC encodes a perfective change of state sense in most cases, whereas ‘theme + 可/足/难 + V’ consists another type denoting the property involving the potential of the theme. Verbs with the highest frequency in TVC include 举’raise’, 见’appear’, 闻’hear’, 卒’die’, 行’implement’, 听’listen’, 定’pacify’, 辟’avoid’.

In the second step, we estimated the faithfulness of 6 verbs, specifically 削’cut down’, 助’help’, 听’listen’, 备’prepare’, 弑’kill’, and 聚’accumulate’, which present a remarkable diversity in terms of verbal semantics, to TVC in all available Pre-Qin. Results can be plotted in Figure 1. It is found that there is no strict distinction between ergative verbs and neutral verbs. Virtually most verbs can occur in TVC, so ergative verbs and neutral verbs had better be understood as two prototypes. However, indeed change of state verbs have the highest contingency between TVC, suggesting the prototypical function of TVC may have something to do with change of state. The findings of the present study can be cross-linguistically aligned to theories of the transitive continuum and verb alternation, and can also shed light on the investigations of passive expression in isolating languages as a typological feature.
English [z] in Mandarin: is what we hear the same as what we say?

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According to Flege’s (1995 a; henceforth SLM) Speech Learning Model, L2 production difficulties may arise from perception wherein L2 segments are perceived as variants of similar (but not identical) L1 segments. This perceptual distortion is the cause of non-native characteristics of their L2 production. This view predicts that speakers with different L1 backgrounds may perceive L2 sounds differently and that will in turn affect their L2 production differently.

SLM can further be extended to the speakers who speak the same L1 with different backgrounds. Take speakers of French Quebec and France for instance. Both groups speak French as their L1, but they substitute different French sounds (Quebec: [t]; France: [s]) for English [θ]. On the other hand, L1 variation within the same language community may not give rise to different perception patterns. Thomas (2000), Hay et al. (2006), and Evans & Iverson (2007) found that speakers who do not produce certain contrasts can nevertheless perceive them, just like speakers who do not produce the contrast.

As we see in French, even within the same L1, the speakers’ L2 perception may be different (Brannen 2002). In addition, within the same language community, speakers might sometimes need to accommodate their perception to others’ speech (Thomas 2000, Hay et al. 2006, and Evans & Iverson 2007).

The current study investigates native Taiwan Mandarin production by region and gender (2x2). Region factor is subsumed by the frequency of Min usage: southerners use Min more frequently than northerners; females tend to preserve more contrasts than males (see Chuang 2009). 8 participants born after 1980 were recruited, balanced for region and gender.

The goal is to see whether Mandarin (L1) production with different frequency of Min usage affects English (L2) perception. To answer this question, I examine the effect of southerners’ and northerners’ Mandarin on the perception of English coronal sibilants. Specifically, this study investigates how the native Mandarin production of coronal sibilants ([ʂ, ʐ, tʂʰ, s, ts, tsʰ, ɕ, tɕʰ, tɕʰ]), with different frequency of usage of Min, affects the speakers’ perception of English [z].

Two tasks were conducted. In a production task, participants produced Mandarin disyllabic words, with the first syllable containing sibilants, along with fillers. In the perception task, participants listened to one English monosyllable (English consonant + [a]) at a time, and then used Mandarin to transcribe it.

The production results of COG and F2 showed that in terms of Taiwan Mandarin production (L1), a merger of dental and retroflex sibilants occurred for southern males, but the other groups did not exhibit this merging effect. If the proposal of SLM that native Mandarin (L1) production with different degrees of exposure to Min influences English (L2) perception, then we would expect that southern males’ English perception should be different from other groups’ English perception on [z]. However, the perceptual data showed that not only southern males but also southern females tended to perceive English [z] as Mandarin [ʐ], whereas northerners tended to perceive English [z] as Mandarin [ts].

In order to figure out why there is a mismatch between production and perception in southern females, I looked at the production of Mandarin [ʐ], but did not find any patterns by region. Then I looked at production of Mandarin [ts], finding that compared with northerners, the place of articulation of [ts] was backed for the southerners (the COG value is more backed than English [z]), suggesting that not only southern males’ production, but also southern females’ production was influenced by Min (given that Min only has alveolar instead of dental sibilants). This
explains why this regional perceptual bias exists: southerners did not choose [ts] to substitute for English [z] because their place of articulation does not match with each other. Instead, they chose Mandarin [z] since it matches voicing with English [z]. The interaction among Mandarin [ts], [z], and English [z] suggests that southerners and northerners had different phonetic perceptual space, and different attention of respecting place or voicing. Specifically, the southerners respect voicing above place due to extensively exposure to Min, given that Min has a voicing contrast in obstruents, while the northerners, with less exposure to Min, respect place above voicing.

The Acquisition of Fricatives and Affricates in Taiwan Mandarin
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There have been a number of debated issues regarding the phonological status of fricatives and affricates (e.g., Clements and Hume 1995, Kim 1997, 2001, Kehrein 2002) as well as on the universal order of acquisition of the fricative and affricate classes. Evidence from longitudinal studies showed that there are no discrete stages for the acquisition of correct fricative/affricate production (Smith 1973, Edwards 1974). However, Jakobson (1941/1968) claimed that stops and fricatives are acquired before affricates in the universal order whereas Menn (1973) suggested that stops and affricates are acquired earlier than fricatives in English children and Cook (2006) confirmed the same pattern in Chipewyan children. Evidence from cross-sectional studies showed that fricatives and affricates represent two of the later-developing sound classes and are often produced incorrectly in English children (e.g., Farwell 1976, Ferguson 1978, Ingram 1978, Stoel-Gammon 1985, Smit 1993). In terms of correct production/error substitutions, fricatives and affricates are usually replaced with a greater range of consonants (Snow 1963, Bricker 1967, Olmsted 1971, Smit 1993). Smit (1993) on English found that stops are mainly substituted for fricatives and affricates whereas Menn (1973) on English and Cook (2006) on Chipewyan both found that stops or affricates are substituted for fricatives. The current study is drawn from the following two corpora in Taiwan: (1) a longitudinal observation of consonant acquisition production by 12 children aged 0;7 to 4;0 at a naturalistic setting, and (2) a cross-sectional picture-naming experiment involving consonant articulation in the speech of 225 children aged 1;6-6;0. The data support the following findings:

Regarding the order of consonant acquisition, dental or palatal affricates [ts, tsʰ, te, teʰ] are acquired earlier than fricatives [f, s, ʃ, x]. Retroflex fricatives or affricates [ʂ, z, ts, tsʰ] are only produced by a few children.

Regarding the rate of consonant acquisition, dental or palatal affricates [ts, tsʰ, te, teʰ] occur more often than fricatives [f, s, ʃ, x]. Retroflex fricatives or affricates occur less often than dental or palatal sets in the children. Regarding the substitution errors made by children, stops [t, tʰ], dental affricates [ts, tsʰ] or palatal affricates [te, teʰ] are more likely to be substituted for fricatives.

Results from these longitudinal and cross-sectional studies both indicate that there is an affinity between stops and affricates, suggesting that the Stop Approach in phonological theory by far seems to better explain the acquisition patterns in Mandarin. In addition, phonological availability and phonological saliency might also influence the acquisition of affricates since affricates can only be followed by high front vowels, and the vowel [i] happens to be the second most common one in children’s vowel production system.

Tonal Processes in Nanjing Chinese and the Blurry Phonetics-Phonology Boundary
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Expanding our earlier study, this paper examines the tonal production data from six (6) female and six (6) male speakers of Nanjing Chinese. The main goals were to describe and explain the contextual tonal variations and to further discuss phonetics-phonology relationship from the perspective of degree of completeness in contrast neutralization in tonal processes.

It has been observed that there are five distinctive tones (e.g. Liu, 1995). However, transcriptions of the five
tones differ from source to source. Through analyzing and normalizing the production data, the tonal inventory of Nanjing Chinese is provided in this paper: /High Falling 41, Low Rising 213, Low 21, Level 32, High Rising 45/.

Descriptive differences are also found in the previous studies on tone sandhi patterns in Nanjing Chinese (e.g. Liu, 1995; Chen & Wiltshire, 2013). We investigated tonal variations in 250 disyllabic tonal combinations (25 disyllabic tonal combinations x 5 disyllabic real words for each tonal combination x 2 repetitions) produced by twelve native speakers (age 27±2). The f0 and tone duration measurements, taken with a Praat script and analyzed statistically, revealed that 17 out of a total of 25 disyllabic tonal combinations showed substantial tonal variations, regardless of gender and individual differences. Among these 17 disyllabic, the pitch variations found in 12 sequences do not lead to significant deviation from the canonical contour shapes of the underlying tones. These are the tonal coarticulation type. We also found three (3) neutralizing sandhi patterns, in which complete contrast neutralization takes place between two tones in certain environments (e.g., /41 + 41/ and /32 + 41/ have the identical surface form; i.e. before 41, the contrast is lost between 41 and 32). In two (2) other disyllabic sequences, although there are substantial direction and/or slope changes in contour, rendering the resulting tone very similar to another phonemic tone, complete merger of the two tones do not occur. For example, in the sequence /45 + 21/, the low f0 onset of [21] is substantially raised, and the surface [21] becomes quite similar to /32/ in pitch contour. However, the surface [21] and [32] tones preceded by tone /45/ are still distinguishable in onset pitch height and syllable duration. This type of contextual tonal variation, denoted as non-neutralizing sandhi in this study, differs from both tonal coarticulation and a traditional neutralizing sandhi and.

It is worth noting that in all three types of tonal realization processes in Nanjing discussed above (i.e. (i) tonal coarticulation, (ii) non-neutralizing sandhi, and (iii) neutralizing sandhi), the pitch contour deviations are caused by coarticulatory assimilation and/or peak delay effects (Cf. Xu, 1994 and Huang, 2011). As such, all three types of processes share the same phonetic basis. Traditionally, tone sandhi is considered as phonological, since it involves category shifts which cannot be easily explained by phonetic motivations (see, e.g. Chen, 2000; Yip, 2002). The findings in this study suggest that neutralizing tone sandhi may be rooted in phonetic coarticulation. In addition, non-neutralizing sandhi demonstrates a transition stage from within-category tonal coarticulation to category-neutralizing sandhi. The different degrees of variations and the gradience in categorical change and neutralization found in Nanjing tonal realization processes indicate a rather blurry boundary between phonetics and phonology.
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**Transportation Guide 交通指引**

The conference location Provo Marriott Hotel & Conference Center is located at 101 West 100 North in Provo, Utah. The closest airport is Salt Lake City International Airport (SLC). Travel time from airport to Provo Marriott Hotel & Conference Center is approximately 1 hour. The airport and Provo Marriott Hotel & Conference Center is linked by a wide range of transportation options, including light rail, airport shuttles, rental cars and taxis.

**Light Rail**

To travel from Salt Lake City International Airport to Provo by train, expect it to take about 1.5 hours. The TRAX Green Line Airport Station is located at the south end of Terminal One. After you get your ticket at the ticket booth, get on the TRAX Green Line departing the airport eastbound. Then get off at the North Temple Station in Salt Lake City. Then board the FrontRunner southbound to Provo. Get off at the Provo Central Station. Then you can walk on Freedom Blvd toward north to Provo Marriott Hotel & Conference Center. It will take about 20 minutes.

The TRAX Green Line leaves the airport every 15 minutes on weekdays and every 20 minutes on weekends. The FrontRunner runs every 30 minutes on weekdays and every 1-hour on Saturday. No FrontRunner service on Sundays.

TRAX Hours of Operation:
5:42 a.m. to 11:27 p.m. Monday - Friday
6:36 a.m. to 11:16 p.m. Saturday
6:20 a.m. to 10:20 p.m. Sunday

FrontRunner Hours of Operation:
05:03 a.m. to 12:05 a.m. Monday-Friday
6:03 a.m. to 2:03 a.m. Saturday No service Sunday

One-way fare for the train is $2.50. For detailed schedule, please visit: [https://www.rideuta.com](https://www.rideuta.com)

**Airport Shuttle**

Express Shuttle counters are available at all three terminals. One-way fare is $36 plus tips. Round trip fare is $72 plus tips. You can call 1-800-397-0773 or visit [http://www.expressshuttleutah.com](http://www.expressshuttleutah.com) to make a reservation.
本次會議地點為 Provo Marriott Hotel & Conference Center，地址為：101 West 100 North, Provo, Utah。臨近機場為鹽湖城國際機場（SLC）。從機場到會議中心車程約為1小時，能通過火車、機場巴士、租車和計程車等交通工具由機場前往會場。

搭乘火車
從機場搭乘火車前往 Provo，時間約為 1.5 小時。TRAX 綠線 Airport 站在第一航站樓的南邊，在售票站買票後，乘坐 TRAX 綠線往東方向。在鹽湖城的 North Temple 站下車，換乘 FrontRunner 線往南方向前往 Provo，然後在 Provo Central 站下車。下車後沿著 Freedom Blvd 往北步行約 20 分鐘，便到達 Provo Marriott Hotel & Conference Center。

TRAX 運行時間
週一至週五 5:42 a.m. to 11:27 p.m.
週六 6:36 a.m. to 11:16 p.m.
週日 6:20 a.m. to 10:20 p.m.

FrontRunner 運行時間
週一至週五 05:03 a.m. to 12:05 a.m.
週六 6:03 a.m. to 2:03 a.m.
週日停止服務

單程票價為 $2.50 美元。如需了解詳細火車時刻表，請查詢：https://www.rideuta.com

搭乘機場巴士
機場三個航站樓都有 Express Shuttle 巴士公司的櫃檯。單程票價為 $36 美元另加小費，往返票價為 $72 美元另加小費。您可以撥打 1-800-397-0773 或在 http://www.expressshuttleutah.com 上預訂座位。