

Constraint Interaction in Language Processing and Acquisition

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The objective of this symposium is to bring together studies viewed as resulting from constraint interaction and cross-linguistic variation. In particular, a question is posed with respect to how different cues are weighted in language processing and language acquisition when they are in conflict. It is expected that competing approaches are presented and competition models in psycholinguistic research are applied to individual languages and cross-linguistically while cross-fertilization between them may be sought for. Topics to be addressed include the acquisition of adjectival concepts, classifiers, and anaphora and the processing of verb phrase ellipsis, dependency relations, and anaphora. Theoretical questions will be raised with a focus on the existence and weighting of the constraints in pragmatic, semantic, and syntactic structures as well as non-linguistic effects involving social cognition. It is hoped that this symposium will provide an insight into questions such as what competing motivations are at work, what factors determine the weightings of the constraints, how different cues are in conflict, and how different cues may be integrated toward a convergence.

Chinese Specific Lexical Development in Bilingual Children: Linguistic and Social Factors

Helena Hong Gao

As a typological feature, noun classifiers in Chinese are unavoidable in everyday use of the language. For example, “a book” in English must be expressed in Chinese as “yī běn shū”, which adds a classifier “běn” in between “a” and “book”. This compulsory structure requires Chinese speaking children acquire classifiers at an early stage. Studies show that monolingual Chinese speaking children can use common classifiers correctly before schooling. Our question is: Can bilingual Chinese speaking children use classifiers as effectively as monolingual children? In this study, 30 English-Chinese bilingual children between age 7 and 12 were recruited to participate in a noun-classifier association task, in which children were required to count different types of commonly seen or used objects with a classifier phrase (e.g., liǎng zhī bǐ “two pens”). Due to the fact that counting the items unavoidably involved using classifiers, their application of the classifiers became natural output of their language use. An interview of each child was followed after the task for the purpose of understanding the reasons behind their choice of classifiers. The results show that bilingual Chinese speaking children used fewer classifiers and they acquired classifier knowledge either via learning or generating rules based on comparisons of object properties or through imitation. Also, non-linguistic factors, such as schooling, parents’ classifier proficiency, father’s age, mother’s academic attainment, and income were found to influence a child’s classifier proficiency.

Bilingual Children’s Flexibility in Paired Conceptual Knowledge Retrieval

Helena Hong Gao & Say Young Kim

This study investigated 3- to 5-year-old Chinese-English bilingual children’s conceptual knowledge and flexible interpretation of the words ‘big’ and ‘little’ in English and ‘dà’ and ‘xiǎo’ in Mandarin Chinese. Experiment 1 used Gao et al. (2014)’s design to require children to interpret ‘big’ and ‘little’ both in reference to a medium-sized stimulus that was alternately compared with a smaller stimulus and a larger stimulus (e.g., “Which one of these 2 balls is the big one?”). The purpose of this experiment was to determine bilingual children’s conceptual knowledge base of BIG and LITTLE in both languages. Experiment 2 examined the children’s conceptual knowledge retrieval with matched and unmatched visual input (e.g., A big image of a small animal vs. a small image of a big animal). Even the youngest children switched between interpretations under normative conditions when lexical knowledge was applicable and ready to support. When flexibility was required in the interpretation of big and little, however, younger children perseverated on a single interpretation under one condition (Exp. 1) and switched flexibly under another (Exp. 2). Results support the statement of age-related conceptual development with respect to adjective interpretation by monolingual children (Ebeling & Gelman, 1988, 1994; Gao et al., 2014) but also show a more flexible ability in conceptual knowledge retrieval under the condition where metalinguistic and bilingual knowledge were both required.

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Acquisition of the Korean anaphor caki: The interpretation of dative-marked subjects in benefactive ditransitive constructions

Keum-Jeong Joo, Kamil Deen, & Sook Whan Cho

This study attempts to address the question of whether Korean-speaking children and adult controls adopt (i) a subject orientation or (ii) a nominative orientation in the interpretation of the Korean reflexive caki ‘self’ which is known as a subject-oriented anaphor (Han & Storoshenko, 2012; Montrul, 2010). However, the subject orientation of the reflexive might be nominative orientation. To test it, a Truth-Value Judgment Task

was conducted with 40 Korean-speaking children (age 5;3-6;11) and 60 adult controls with two sentence types: (1) a standard ditransitive sentence which has a nominative and a dative, only the first of which is a structural subject (e.g., Mickey-NOM Minnie-DAT self ball-ACC kick-PST-SES) and (2) a benefactive ditransitive sentence with the benefactive marker -cwu which makes the sentence a biclausal one, with two associated subjects—a nominative marked subject and a dative-marked subject (e.g., Mickey-NOM Minnie-DAT self ball-ACC kick-BEN-PST-SES) (Hoshi, 1994; Terada, 1990). The results show that both children and adult controls strongly accepted a subject antecedent, both in ditransitive and benefactive ditransitive sentences. Crucially, they accepted a dative antecedent at a significantly higher rate in benefactive ditransitive patterns than in ditransitive patterns. These findings contribute to a better understanding of young children’s awareness of (i) the subject orientation of caki, (ii) in addition to a subject orientation, there is an additional preference for nominative marked subjects over dative-marked subjects and the biclausal structure of sentences involving benefactive -cwu. In sum, these findings support a syntactic analysis about caki as a subject oriented anaphor.

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Repair, Revision, and Complexity in the Syntactic Analysis of Dependency Relations for the Three Korean Anaphors: An ERP-based Neurophysiological Differentiation

Myung-Kwan Park, Euiyon Cho, Wonil Chung, & Jong-Un Park

In an attempt to better understand how linguistic dependencies are constructed in online sentence processing, we used event-related potentials (ERPs) to examine the processing of the three Korean

anaphors caki, caki-casin, and casin. In our study we used gender-denoting kinship nouns like siemeni 'mother-in-law' below to dictate either short- (SD) or long-distance (LD) binding of the anaphors at issue. The results showed that in the LD relative to SD condition, the critical gender-denoting noun after caki elicited a positivity at the fronto-centro-parietal region in the 600-650 ms interval (i.e., a P600 effect), that after caki-casin also evoked a positivity at the centro-parietal region in the 550-650 ms interval, but that after casin revealed a negativity at the anterior region in the 600-650 ms interval (i.e., an LAN effect). We interpret these responses as indicating that in the LD relative to SD condition, the late (550-650 ms) ERP responses associated with caki reflect complexity-related syntactic revision, those with caki-casin reflect syntactic repair, and those with casin reflect morphological violation/ working memory difficulty.

type	distance	example
caki	SD-bound	ttohan congwu-ka seinal-ey mina-ka acikto also Chongwoo-Nom New Year's Day Mina-Nom still
		caki-uy siemeni-lul elyeweha-ntako malha-yess-ta SELF-Gen mother-in-law be uncomfortable said 'Chongwoo also said that Mina was uncomfortable with her own mother-in-law on New Year's Day.'
	LD-bound	ttohan mina-ka seinal-ey congwu-ka acikto also Mina-Nom New Year's Day Chongwoo-Nom still
		caki-uy siemeni-lul elyeweha-ntako malha-yess-ta SELF-Gen mother-in-law be uncomfortable said 'Mina also said that Chongwoo was uncomfortable with her own mother-in-law on New Year's Day.'
caki-casin	SD-bound	ttohan congwu-ka seinal-ey mina-ka acikto caki-casin-uy siemeni-lul elyeweha-ntako malha-yess-ta
	LD-bound	ttohan mina-ka seinal-ey congwu-ka acikto caki-casin-uy siemeni-lul elyeweha-ntako malha-yess-ta
casin	SD-bound	ttohan congwu-ka seinal-ey mina-ka acikto casin-uy siemeni-lul elyeweha-ntako malha-yess-ta
	LD-bound	ttohan mina-ka seinal-ey congwu-ka acikto casin-uy siemeni-lul elyeweha-ntako malha-yess-ta

Syntactic structures in elliptical constructions: Evidence from structural priming

Jeong-Ah Shin, Gui-Sun Moon, Sun-Woong Kim, Hye-Kyung Wee, Jong Un Park & Yoonjoo Na

A central issue in linguistic investigations of ellipsis is whether ellipsis sites apply to syntactic representations. A structural priming experiment in this study examines verb phrase ellipsis in English, investigating whether unpronounced ellipsis sites in verb phrases contain syntactic structures, and they prime syntactic choice in subsequent sentence production. Structural priming refers to people’s tendency to reuse the same structural pattern as one that was previously comprehended or produced (Bock 1986). In our experiment, we specifically use voice mismatch constructions allowed in VP-ellipsis (e.g., The dessert was praised by the customer after the critic did, too or The customer praised the dessert after the appetizer was, too) to see whether the ellipsis sites trigger access to syntactic structures and cause structural priming in subsequent sentence production. After encountering the previous sentences in the passive-active mismatch condition, if active constructions are employed in the subsequent utterances describing pictures (e.g., A policeman chased a thief) in the picture-description task rather than passive constructions, we can argue that the syntactic structure of the elliptical constructions (i.e., the critic did already) induces speakers to favor the

production of structures (i.e., A policeman chased a thief) parallel to the syntactic representations in the ellipsis sites, even though the syntactic structures in the ellipsis sites and those in the antecedent clauses are mismatched in voice. The results can be discussed within the syntactic approaches to ellipsis, not the nonstructural semantic approaches.

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The psycholinguistics behind reflexive pronoun resolution in Vietnamese and Chinese

Darcy Sperlich

This presentation reports preliminary results of reflexive pronoun acquisition of Vietnamese learners of Chinese using a combination of interpretative judgment and psycholinguistic data. The study investigates how Vietnamese learners of Chinese interpret the Chinese reflexive *ziji* (self) with the object to discover whether syntactic or pragmatic processes are dominant. Moreover, the Vietnamese participants have English as a second language, hence how they understand the English reflexive *him/herself* will be compared to their Chinese processing. The underlying hypothesis is that the Vietnamese will transfer their pragmatic reflexive resolution strategies into their Chinese and English, positive in the case of Chinese (as both languages are pragmatic in nature), while vice versa for English. Participants are given a self-paced reading test which assesses timing spent per word, to time taken for a judgment. An example sentence would be 'John thinks that David will give himself the apple', and the statement judged would be 'The apple will be given to John' (another question for David would appear later). The linguistic judgments are collaborated with psycholinguistic measures of reaction timing, confidence levels and knowledge source, along with timing from the self-paced reading. Moreover, the placement of the question is assessed (before versus after the stimuli) to see how the question would affect processing of the stimuli, as the reflexive is in a sentence final position, after all potential antecedents. In sum, it is hoped that this experiment will depict what the main reflexive processing strategies are in the languages considered, and if they are transferred.

Is statistical learning trainable? Preliminary results

Luca Onnis, Matthew Lou-Magnuson, Hongoak Yun & Erik Thiessen

Statistical learning (SL) has been proposed as a core set of cognitive mechanisms that support various higher-order behaviors, from language to music and vision. It involves mechanisms that extract information from the environment, and abstract over stimuli to build higher

order implicit knowledge. Crucial to the success of SL is the role of individual experience with the world, and sensitivity to patterns of the perceptual environment. Despite the importance played by experience, SL is tacitly conceptualized as a fixed skill, and few studies have investigated how experience may shape statistical learning. Our study is the first to adopt a pre-post test design to modulate the effects of statistical learning on statistical learning itself. We provide both theoretical and practical reasons for launching a research agenda on statistical learning training, and evaluate our initial results in the light of a parallel literature on cognitive training in working memory.