



PRAGREV

Pragmatics.Reviews

Online Publication of the
European University VIADRINA

Volume 1, Number 1

March 2013

**Novel applications of cognitive approaches in
second language acquisition**

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dx.doi.org/10.11584/pragrev.2013.1.1.8

www.pragmatics-reviews.org

Novel applications of cognitive approaches in second language acquisition

Jeannette Littlemore, Constanze Juchem-Grundmann. 2010. *Applied Cognitive Linguistics in Second Language Learning and Teaching. AILA Review, Volume 23*. Amsterdam: John Benjamins.

For the past three or four decades, *Cognitive Linguistics* (CL) as a research paradigm has been employed in fields such as phonology, syntax, semantics, and discourse analysis. This volume is a novel and significant endeavor that extends cognitive linguistics theories into the area of *Second Language Acquisition* (SLA). The CL processes or areas being examined in this volume include construal, radial categories, prototypes and “fuzzy boundaries”, explicit and implicit knowledge, cognitive grammar, construction grammars, metonymy, and metaphor. The research focuses in terms of language learning and teaching encompass speaking (accuracy and fluency), grammar (the English modals, Spanish mood selection), phrasal verbs, lexis, writing and second language acquisition in general.

This collection includes an introduction and eight papers, most of which are empirical studies that address the significance and pedagogical effectiveness of cognitive linguistics in language learning and teaching. The first paper by Karen Roehr focuses on language representation and processing in the mind. She presents a case study of an adult L2 learner whose development of oral proficiency was tracked for a period of 17 months. Her findings indicate that explicit knowledge and learning have both benefits and limitations. The use of metalinguistic tools contributed to accuracy, and there was no obvious trade-off between accuracy and fluency. But the excessive cognitive load imposed by explicit processing may result in implicit processes taking over.

The next five papers all focus on motivated language in SLA. The paper *Applying cognitive linguistics to instructed L2 learning: The English modals* by Andrea Tyler, Charles M. and Vu Ho reports the results of a quasi-experimental study. The English modal verbs present great difficulty to L2 learners due to the fact that they usually have two divergent senses: a root and an epistemic sense. The authors argue that the speech act approach that traditional English language teaching textbooks adopt is defective because it does not address the systematic patterning in the modal system as a whole. By comparing the groups of learners taught through a cognitive linguistic approach and those by a speech act approach, the authors conclude that the former group demonstrated significantly more improvement than

the latter. It is therefore argued that CL is not only a more complete and accurate theoretical approach to language in general, but also one that is of particular benefit to L2 learners.

Rafael Alejo Gonzalez, inspired by the “thinking for speaking hypothesis” (Slobin 1987) for motion events, provides a comprehensive and critical summary of the CL literature on phrasal verbs (PVs), which is intended to explain the acquisition of PVs by L2 learners. Gonzalez examines the *out*-PVs using corpus linguistic methodology and finds that both Germanic and Non-Germanic satellite-framed language learners use a greater number of *out*-PVs tokens and types than verb-framed language learners and that satellite-framed language learners also use a greater elaboration of path when non-motional *out*-PV meanings are involved. Gonzalez argues that the “thinking for speaking hypothesis,” which has been found to be predictive in the acquisition of motion events by L2 learners, is also useful when applied to the acquisition of PVs.

Reyes Llopis-Garcia presents a series of experiments studying mood selection, the last feature acquired in learning Spanish as a foreign language as it is one of the most difficult aspects, in Spanish using *Operational Grammar*. After eight 90-minute sessions of instruction using a combination of cognitive-based approach to teaching grammar with *Processing Instruction* for the practicing part, the author found that the combination of these two approaches had yielded very positive effects on how the students identified mood selection to construe meaning in both input and output learning situations. The study suggests that the cognitive approach to teaching grammar is highly beneficial. Operational grammar, a pedagogical grammar approach, based on teaching form and meaning as one unit, helps to bridge the gap between the two and enables learners to perceive the interplay between language form and its communicative outcome.

Julie Deconinck, Frank Boers and June Eyckmans describe an experiment in which 56 university students are involved in three different learning treatments. The chances of an L2 word becoming entrenched in long-term memory are influenced by the degree of cognitive (and affective) involvement on the part of the learner (e.g. Laufer and Hulstijn 2001). Others have adopted terms such as engagement or elaboration to describe the various mental operations learners can perform with regard to lexical items. Equipped with the notions that language is far less arbitrary than has often been assumed and that learners might resort to a certain type of engagement spontaneously when presented with new words, the authors of this study designed an experiment to stimulate a type of engagement for their students who were prompted to consider the degree to which the form of a word might fit the word's meaning. Their study suggests that an evaluation of the linguistic motivation of a word's

form-meaning link can be an effective form of elaboration. It could be turned into a conscious, simple and time-saving vocabulary teaching method, especially lexical items whose form-meaning link is perceived as being motivated.

Randal Holme discusses constructions, as they are the central units of grammatical analysis in CL. They comprise any grouping of words or morphemes that in combination possess meanings that cannot be predicted from their isolated parts. Language learning is more than just learning lexis but also constructions and the text types in which they are used. Constructions can be regarded as either compositional or non-compositional. The former means treating a form of words as an example of a productive grammatical pattern, and some or all of the words in the pattern may be substituted with others that fit its or their meaning(s). The latter means the construction is regarded as a fixed expression, such as idioms. Compositionality as a pedagogical choice is determined by the nature of the form in question and what the teacher wants the learners to do with it. CL positions constructions on a lexico-grammatical continuum. Those constructions with little or no schematicity and not much prospect of formal variation can be placed towards the continuum's lexical end. Constructions such as the transitive, agent+process+patient, are very schematic and productive and thus can be placed on the continuum's grammatical end. Teachers can use image schema to develop students' grasp of abstract concepts, such as from the more concrete use of *heavy rain* to the more abstract use of *heavy demand*. Also, the use of *heavy smoker* shows how metonymy extends meaning. Teachers can help students come to grips with constructions as productive meanings that are built around one or more fixed terms. Through pattern-finding, especially advanced students are encouraged to generalize constructions and gain a more secure compositional control of L2.

The last two papers focus on metonymy and metaphor, respectively. Antonio Barcelona reflects on the various areas of CL research on metonymy. Metonymy is a cognitive process whereby one concept is used to mentally activate another one with which it is closely related in experience. It is ubiquitous in cognition and language, and metonymic inferencing is highly relevant for SLA. The author discusses three areas of CL-inspired metonymy research that are of particular relevance to SLA:

- 1) research on metonymy-guided inferencing;
- 2) research on metonymy-motivated lexical polysemy; and
- 3) research on metonymy-based grammatical constructions and processes.

The first area is closely related to second language comprehension, especially when the second language learner is confronted with discourse types relying heavily on the comprehender's quick inferential work. Metonymy also plays a role in pragmatic inferencing, and in discourse modes. The second area is related to the learner's vocabulary building or comprehension activities, and the last to the acquisition of grammatical constructions. A number of suggestions of metonymy research for second language learning and teaching are put forward at the end of the article. These include raising learners' awareness of the ubiquity of metonymy-guided inferencing, using adequate contexts with metonymy triggers, stimulating metonymy-guided reasoning and exploiting the metonymic motivation of certain basic metaphors.

Unlike the previous paper which is discussed from a more theoretical perspective, the last paper, by Fiona MacArthur, addresses metaphor from a more practical point of view. Considerable research has focused on how to help learners come to grips with metaphors of the target language, and how to understand and retain the conventional figurative language. However, little has been said about how learners actually produce metaphors in their second language. So MacArthur's work helps fill this gap. She uses the data she gathered in the EFL classroom to describe and explore the metaphorical language used by Spanish undergraduates in their writing over a period of about 5 months. The data show that learners use metaphors to express their ideas on complex and abstract topics, but their metaphorical usage is neither conventional nor felicitous. The possible reasons may lie in the learners' lack of vocabulary, resources or negative transfer from L1. The author suggests that the adoption of a complex scientific metalanguage to account for metaphor may impede learners' comprehension and creation of metaphors. Instead, metaphor can be talked about as a way of "seeing" particular entities or processes in terms of other entities or processes, which is easy to comprehend and more "user-friendly." How to give feedback to learners' metaphoric production also presents considerable challenges and deserves the teacher's careful consideration.

All papers in this volume examine the potential benefits and effectiveness of a CL approach in language teaching and learning. They represent a trend to utilize CL for the benefit of pedagogical situations and raise complex issues that may emerge in this process. By and large, CL-inspired approaches to language teaching have yielded positive results and often significant impacts on the language learning process. This volume has opened up new areas of research and may be of great value to those who are interested in CL, SLA or both.

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Jingyang Jiang: Review for *Applied Cognitive Linguistics in Second Language Learning and Teaching*. *AILA Review*, Volume 23. 2010. In PRAGMATICS.REVIEWS 2013.1.1