Usage-based Linguistics and Second Language Learning and Teaching

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Abstract: *Research on usage-based linguistics on second language acquisition has been fruitful in the international arena, but it is still in its infancy in China. In order to promote related research in China, this paper presents a comprehensive review of this research area. First, an introduction to usage-based linguistics is presented, then a review of its empirical studies is provided and finally the implications of usage-based linguistics on second language learning and teaching are discussed.*

Keywords: Usage-based linguistics, Second language learning, Second language teaching.

1. Introduction

Usage-based linguistics (or usage-based approaches, the usage-based perspective, the usage-based model) is an umbrella theory subsuming similar tenets from several streams of theories including cognitive linguistics, construction grammar, functional linguistics, and dynamic-systems theory (Ellis, 2002). It is receiving great attention as it differs in its conceptualization of language and language learning from the formal approaches (represented by Generative Grammar) (Wulff, 2020). However, how does this new theory shed light on language learning and teaching remains unclear. Therefore, in the present review we will first introduce the underpinnings of usage-based linguistics, then review its empirical studies and finally conclude with its implications on second language learning and teaching.

2. Usage-based Linguistics

Usage-based linguistics (or usage-based approaches, usage-based model /perspective) views language as a larger inventory of form-meaning relations (or constructions), where the forms vary in size from morphemes and single words to phrases and syntactic patterns (Goldberg, 1995; Tomasello, 2003). This view of language entails that all linguistic units, great and small, have in common that they are form-meaning relations. That is, there is no clear boundary between grammar and usage. It differs from formal approaches in that the latter view language as being made up of two distinct components, i.e., grammar and vocabulary. In such a view, the grammar provides a finite and fixed set of sentence templates and a set of “rules” that words should abide by, while the dictionary provides the large repertoire of words to be slotted into the templates in their appropriate form as dictated by the grammar rules.

With the principle laid out that grammar and usage are inseparable, researchers share four assumptions with the usage-based linguistics (Wulff, 2020). Firstly, construction is the basic unit of language and linguistic representation, referring to any combination of form and meaning, and is present at all levels of language, including morphemes, words, compounds, idioms, and patterns, but with varying degrees of

complexity and abstraction (Goldberg, 1995). Secondly, linguistic knowledge is abstracted from the experience of using language, and language is acquired during communication (Tomasello, 2003), so the frequency of the use of a particular construction is important for linguistic knowledge. This has a direct impact on the representation and activation of language use (Ellis, 2002). Third, linguistic competence/representation and use are inseparable; individual linguistic representations emerge from language use, and linguistic competence is shaped by the individual processing acts of language comprehension and production (Croft, 2001). Finally, linguistic competence is not dissimilar with other facets of cognition and involves mental processes such as categorization, schematization, and entrenchment (Ellis, 2002). In summary, a UBL approach to L2 instruction must involve a great deal of repeated exposure to constructions at all levels—at the morphological, lexical, phrasal, sentential and discourse levels—in a meaningful context. That is, simple morphemes such as *—tastic* (meaning extremely) are constructions in the same way as simple words like *cookie* (meaning ‘small wheat cake’), allocations like *cookie dough*, idiomatic phrases like *smart cookie* (meaning “smart person”), and abstract syntactic frames like Subject-Verb-Object-Object (meaning that something is being transferred, as realized in sentences as diverse as Oliver gave Mary a *cookie*, Oliver gave Mary a hug, or Oliver baked Mary a cake, where *cookie*, hugs, and cakes are being transferred, respectively) (Wulff, 2020).

The learning of constructions thus is largely affected by three elements, i.e., input, frequency, and the salience of target constructions (Ellis, 2002). Exposure frequency refers to occurrences of target words in a reading text. It underpins learning and entrenchment of constructions. Salience refers to the general perceived strength of stimuli (Ellis, 2002). A case in point would be the notoriously difficult grammatical meaning-form relationship such as the third person singular *-s* of English for Chinese learners. This grammatical inflection is of low salience since in the sentence ‘Mary walks to school today’, today provides a more salient cue to present time than the morpheme ‘s’ marking of 3rd person singular present tense. A better way of learning of such constructions could be achieved by raising their salience in texts. Psycholinguistics

research affords evidence for the usage-based linguistics approach of learning in showing that language processing is highly sensitive to usage frequency at all levels of language representation from phonology to lexis and syntax (Ellis, 2002). These frequency effects confirmed the paramount role of input in learning a new language. Lexical constructions such as open-class words (nouns, verbs, adjectives, and adverbs) are learnable to all learners through exposure to naturalistic input. However, the available target language does not necessarily translate into intake, which is defined as that subset of input that actually gets in and which the learner utilizes in some way. Such lack of a repetition effect could be attributed to learners ignoring the unknown target words or making incorrect inferences (Webb, 2007). According to usage-based linguistics, apart from input and frequency, the learnability of constructions is largely affected by the salience of target constructions.

3. Empirical Research from the Usage-based Linguistics Perspective

In this section an overview of the empirical research drawing upon UBL was presented. Researchers have conducted empirical studies in two main areas: (1) the development of learners' knowledge of constructions and (2) input properties and their role in the development of constructional knowledge.

Regarding the development of learners' knowledge of constructions, previous literature has mainly focused on argument structure constructions (e.g., Kim & Rah, 2019) and multi-word expressions/formulaic sequences. Few studies have been conducted on word-level constructions (e.g., Waara, 2004; Zheng, 2018). Using a self-constructed oral corpus, Waara (2004) compared Norwegian and British secondary school students' use of *get* in four tasks, focusing on Norwegian students' output of *get* constructions that are communicative but were not rather authentic, and are therefore called learner constructions by the authors. The study was conducted in a naturalistic setting and the results confirmed the ontological status of constructions as form-meaning pairings in L2 learning. Zheng (2018) employed the UBL perspective to track multidimensional changes in the linguistic complexity of 40 compositions over the course of one academic year of two advanced Chinese L2 learners of English. The development and interactional patterns of six linguistic complexity indicators at three levels were examined, i.e., word constructions, phrase constructions, and sentence constructions. Findings suggested that different constructions developed in different trajectories, with both progressions and regressions.

In regard to input properties and their role in the development of constructional knowledge, i.e., what properties in input would render it more learnable, previous literature mainly investigated the input properties of contingent frequency in the development of argument structure constructions (e.g., Kim & Rah, 2019). Contingent frequency refers to the frequency with which constructions co-occur with each other. However, different levels of granularity at which frequency

operates exist, with the lower level of granularity being token frequency, the higher level of granularity being type frequency and contingent frequency. Only a handful of studies explored the issue of exposure frequency and salience on learners' acquisition of constructional knowledge (e.g., Wei, 2020; Xu, 2017). Xu (2017) explored the role of token frequency, word frequency, and salience of form-function mapping on Chinese learners' acquisition of verbal passive and adjectival passive constructions. Findings revealed that the effect of token frequency was significant among lower-level proficiency learners but not among higher-level proficiency learners. The effect of word frequency and salience was evident in both groups respectively. It bears mentioning that the effect of the salience of construction was not significant in token-frequency groups. The findings lent support to the usage-based view of language acquisition for the effect of token frequency, word frequency, and salience on the acquisition of constructional knowledge. However, the study focused on grammatical constructions and salience is investigated to examine learners' processing instead of learning of constructions. Different from Xu (2017), Wei (2020) investigated the pedagogical influence of different input conditions and frequency on Chinese undergraduates' learning of 20 ESP multi-word constructions (ex. stone heart, iron lung, split hand). Three important findings emerged from the study: (1) three conditions led to significant gains in three tests after two rounds, (2) the three test scores between three exposures and six exposures were significantly different, and (3) high-level groups performed significantly better than low-level groups in meaning recall tests, while low-level groups did significantly better in the other two tests. The study confirmed the facilitative role of input frequency combined with visual enhancement on construction learning.

4. A Usage-based Linguistics Approach to Second Language Teaching

First, teachers should ensure that the to-be-learned language should be faithfully reflective of a construction, that is, a pair of form and meaning. The whole process of language teaching should be meaning making and communication and at the level of language constructions rather than rules.

Second, teachers should create a contextualized situation where the to-be-learned language is experienced by participants in a meaningful discourse and task context beyond single sentences.

Third, teachers should introduce to students authentic L2 input where target constructions were repeated throughout the text (e.g., graded readers). The previous literature review has highlighted that exposure frequency combined with gloss would be a more effective way for L2 learners to learn new words. Thus, repetition combined with salience should be carefully considered in the instructional design.

5. Conclusion

Through an introduction to the flourishing usage-based linguistics and a review of its empirical studies, the present

study offers insights into the implications of usage-based linguistics on second language learning and teaching. An expansion of the emergent research domain is bound to happen and we look forward to seeing many new waves of study that can illuminate a usage-based linguistics approach to second language learning and teaching as a well-researched pedagogy.

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