
Integrating Cognitive Linguistics and Foreign Language Teaching - Historical Background and New Developments

Antoon De Rycker
Associate Professor
Faculty of Languages and Linguistics
University of Malaya, teundr@um.edu.my

Sabine De Knop
Professor and Head of the Department of Germanic Languages
Facultés Universitaires Saint-Louis,
Brussels, Belgium, deknop@fusl.ac.be

Abstract

Recently foreign language teaching (FLT) research has been able to benefit enormously from advances in Cognitive Linguistics (CL) (e.g. Lakoff, 1987; Langacker, 1991; Taylor, 2002). As a consequence, CL has become more and more interested in turning its rich, specialised, and emerging body of research into a practical guide for language teachers, course designers, and materials writers. To that end, CL-based classroom instruction in a second or foreign language needs to show that (i) it can move beyond the largely unmotivated rules, examples, and lists typical of the traditional paradigm; (ii) that it can produce results-driven grammar instruction and practice; and (iii) that it can ultimately balance all of this properly with new insights gained from second-language acquisition (SLA) research (e.g. Lantolf & Thorne, 2006). In this paper we will first look at CL in a broader historical context of *applied* linguistics, and more particularly, FLT, discussing how it builds on, and differs from, such linguistic theories as transformational-generative grammar and pragmatics. Then, we will show how the theoretical assumptions, basic units, and constructs used in CL offer a better understanding of the true nature of language and grammar, and how CL can improve the efficiency and effectiveness of current FLT methods (e.g. Robinson & Ellis, 2008; De Knop & De Rycker, 2008; Boers & Lindstromberg, 2008).

Introduction

As observed in the introduction to *Cognitive Linguistics: Current Applications and Future Perspectives* (Kristiansen et al., 2006), foreign language teaching (FLT) is interdisciplinary in character, crossing over into and closely collaborating with, among others, second-language acquisition (SLA) research, psycholinguistics, and educational psychology. Note that we do not distinguish, in this paper, between the teaching/learning of a second language and that of a foreign language. For both, we will look at how Cognitive Linguistics (CL), both as theory and description, can enhance the quality of classroom teaching/learning methodologies. Before doing so, we would like to explain how CL fits into the bigger picture of applied linguistics, i.e., how it builds on, and is different from, earlier linguistic theories, and particularly, transformational-generative syntax and pragmatics. This will serve as the necessary historical background against which to briefly introduce some of the theoretical assumptions, key concepts, and analytical tools used in CL. For each of these, we will zoom in on the contribution that CL has been able to make so far to the classroom teaching of foreign languages. In other words, what are the ways in which CL insights can be applied to foster greater FLT efficiency – an area of research that is, of course, only one strand in the broader field of Applied Cognitive Linguistics (ACL). As observed by Boers, De Rycker, & De Knop (forthcoming), the main challenge is to find out which ACL insights can inform teachers, materials writers, and course designers in their decisions about *what* to teach, i.e., the selection of second/foreign language targets for classroom treatment, and about *how* to teach these, i.e., the methodological choices involved in realising those targets most successfully. It is hoped that this paper will whet readers' appetite for a CL approach to FLT, and that it may also succeed in offering some rewarding avenues for further exploration of what it means "to think before you speak" in another language.

Historical Background: Applied Linguistics and the Cognitive Turn

One of the first pioneers in applied linguistics who was also interested in questions of grammar learning and grammar teaching is Lado (1957). However, in the Fifties, applied and theoretical linguistics were still not so well established as academic disciplines. It is only thanks to the revolutionary work by Chomsky in the Sixties and Seventies that linguistics could take a major leap forward in its self-understanding as a branch of the cognitive sciences, its relevance to neighbouring disciplines, and its standing in the academic and political world at large. At the same time – more precisely in

1964 – the international organisation of applied linguistics was founded under its French name of *Association Internationale de Linguistique Appliquée* (AILA).

In this general positive climate of a new faith in linguistics as a useful pursuit it is no surprise that even Chomsky (1965, 1966) himself in his theoretical approaches put the notions of formal grammar and pedagogical grammar, i.e., a grammar that bridges theory and practice, side by side, regarding grammar as a psychological reality, i.e., as an innate “ability” to produce and comprehend speech:

A grammar describes and attempts to account for the ability of the speaker to understand an arbitrary sentence of his language and to produce an appropriate sentence on a given occasion. If a pedagogic grammar it attempts to provide a student with this ability, if a linguistic grammar it aims to discover and exhibit the mechanisms that make this achievement possible.

(Chomsky, 1966, p. 10)

As is well known, Chomsky postulates a *language acquisition device* (LAD) concept, which operates autonomously, and which, seemingly in a fully disembodied and non-socio-cultural world, leads to the acquisition of competence in a given language. The first applied linguist to give a more detailed description of what a pedagogical grammar should be is the generativist Saporta (1966, 1973), for whom the “central question in the application of linguistics to the teaching of foreign languages involves the conversion of a scientific grammar into a pedagogical grammar” (1966, p. 81). Very much influenced by Chomsky and his followers, he makes an almost identical distinction between a pedagogical grammar and a scientific grammar and sees a pedagogical grammar as an attempt to develop an ability to recognize and produce sentences (Saporta, 1973, p. 266). Yet, Saporta’s definition goes further when limiting this ability to native speakers – which stands in contradiction with the aim of his paper, i.e., the description of a pedagogical grammar as a grammar for second and foreign language learning. He speaks of the “paradox of second language learning” (1966, p. 85), with which he anticipates Krashen’s Monitor Model (1977, 1978):

Language is rule-governed behaviour, and learning a language involves internalizing the rules. But the ability or inclination to formulate the rules apparently interferes with the performance which is supposed to lead to making the application of the rules automatic. (Saporta, 1966, p. 85)

Chomsky's influence was felt in the United States and in Europe but not in exactly the same way. In the United States it was especially the application of Chomsky's LAD concept that caught on whereas in Europe the focus was on describing – through error analysis or contrastive analysis – the interim grammars developed by learners trying to acquire a particular target language. In the United States, more particularly, Krashen (1977, 1978, 1982) developed the LAD ideas into what he called the “Monitor Model,” which is a language learning theory, making a radical distinction between the *unconscious acquisition* and the *conscious learning* of a target language. Krashen believes that learned competence acts as an editor or monitor, i.e., as a self-correcting device in natural language, when mispronouncing a word or using a wrong word or construction. Krashen widens this concept to foreign language learning. Whereas acquired competence is responsible for the fluent production of sentences, learned competence consciously corrects them. Many linguists have rejected Krashen's model, however. See, among others, McLaughlin (1978, 1987) and Taylor (1993), who critically observe that the acquisition/learning distinction is not clear-cut and that there is no evidence for the existence of such a monitor. A major criticism from the pedagogical grammar point of view is that his monitor model would make a pedagogical grammar void, superfluous, and meaningless.

In Europe applied linguistic research, influenced by Chomsky's (1965) transformational-generative grammar, mainly dealt with the question of the relevance of linguistics for the teaching or learning of languages. Reference can be made here to, among others, Candlin (1973), Corder (1973a, 1973b, 1973c, 1974a), Kufner (1971), Mackey (1973), and Roulet (1972, 1978). Noblitt (1972, p. 316), however, offers an important qualification to the then widespread belief in spontaneous and automatic language acquisition. Since no second or foreign language grammar is acquired automatically, it is the specific task of a pedagogical grammar to “formulate the grammar,” taking into account the criterion of relevance for the learner. But, what the formulation of such a grammar looks like remains unanswered. Most research in applied linguistics at that time deals with questions about interim grammars, contrastive analysis, and/or error analysis: Candlin (1973), Corder (1973a, 1973b, 1974a, 1974b), Dulay & Burt (1974), Jain (1974), Roulet (1972, 1978), and Richards (1974). One can also note a much stronger interest in the design of teaching materials and syllabuses, e.g. by Calvano (1980), Johnson (1983), and Wilkins (1976). As a matter of fact, Sharwood Smith (1976, 1978) is one of the few to recognize the importance of the psychological or cognitive basis of a pedagogical grammar (1978, p. 26)

though he too makes use of Chomsky's transformational-generative grammar to describe the expression of futurity in English.

Already in the early Seventies, however, various corrections to Chomsky's "idealist" concept of linguistic competence were proposed within theoretical linguistics. On the one hand, there is the pragmatic turn, and on the other hand, the theory of communicative competence. Pragmatics "developed in part as a reaction or antidote to Chomsky's treatment of language as an abstract device, or mental ability, dissociable from the uses, users and functions of language" (Levinson, 1983, p. 35). The most important pioneers were Austin (1962), Searle (1969, 1975), Grice (1975), Habermas (1979), and Wunderlich (1972). With them, language philosophy and linguistics were to move from a purely theoretical approach focusing on ideal and abstracted sentences towards an interest in "utterances" (Austin, 1962) or so-called "speech acts" (Searle, 1969). To utter a sentence is not just to "say" something but also to perform a certain kind of action taking into account social aspects (e.g. the social position of the speaker), psychological factors (e.g. how one feels) or the intentions of the communication partners. In the Eighties, pragmatics became a new branch of language philosophy and linguistics in its own right, attracting very large groups of scholars – see, among many others, Dascal (1983), Leech (1983), Levinson (1983), and Verschueren & Bertuccelli Papi (1987). They developed a wide range of pragmatic interests: the study of deixis, conversational implicatures and presuppositions, speech acts like the expression of requests, apologies or refusals, repair strategies in miscommunication, etc.

From quite a different angle, i.e., from the ethnography of communication as developed by Hymes in the Sixties, came the notion of "communicative competence" (Hymes, 1972a; 1972b). An adequate theory of language, as he argues, needs to go beyond the Chomskyan dichotomy of competence and performance, with its narrow focus on grammaticality and acceptability judgements respectively. Instead, one has to recognize that members of a speech community also have underlying knowledge with respect to "the way in which the systemically possible, the feasible, and the appropriate are linked to produce and interpret actually occurring cultural behaviour" (Hymes, 1972b, p. 286). It is these four dimensions that should underpin a broad theory of communicative competence.

Both pragmatics and communicative competence theories radically influenced language teaching, both the thinking about it (e.g. Richards & Schmidt, 1983) and the actual teaching practice in the classroom, and it even led to the almost complete abandonment of grammar teaching. Even

grammar research focused on those aspects of grammar that primarily served “communicative” functions: for example, Leech & Svartvik’s (1975) *A Communicative Grammar of English* and Van Ek’s (1975) description of the Threshold level. The focus on contrastive linguistics and error analysis was largely replaced by a focus on interactional acts or strategies, speech acts, and the interplay of forms and functions in communication. As a consequence, interlanguage pragmatics focused on the development of learning activities that would raise language awareness (James & Garrett, 1991), facilitate the appropriateness of language performance in non-native learners’ communicative strategies (for an overview, see Bialystok, 1990) or develop a so-called pragmatic competence (Blum-Kulka, 1991).

Summarizing the effects of this major turn, one can say that since the Eighties language pedagogy has experienced a silent revolution with a stronger focus on authentic language materials, pragmatic language functions, and interactive learning methods. As a consequence of this, FLT has been able to increase its efficiency considerably. However, apart from the rich pragmatics input, it has lacked a sufficiently strong theoretical framework to support the teaching of language in all its aspects, including language in use.

Arguably, from the viewpoint of cognitive linguistics, such a linguistic theory has to be usage-based and cognition-oriented, as we shall discuss in the next section. Already at the same time as the pragmatic turn, that is about twenty-five years ago, some researchers claimed that cognitive linguistics might “offer the opportunity for a renewed approach to pedagogic grammar research” (Dirven, 1989, p. 56). The deeper motivation is the insight that we communicate the world not simply as it is, the world as a given, but as our language structures it, starting from conceptualizations based on the categorization of this world. Language is seen as being linked with other cognitive domains. Building on a broad cognitive foundation, cognitive linguistics approaches language as an integrated system of lexical and grammatical concepts and of communicative interaction patterns. More particularly, cognitive linguistics is concerned with conceptual issues against the larger background of human cognition and is also based on actual language usage. It is for these reasons that it becomes a powerful tool for dealing adequately with the main issues of a pedagogical grammar and FLT teaching in general.

Specialists in language teaching generally accepted the high potential of cognitive linguistics for the creation of teaching targets and learning materials. So, it may come as a historical surprise that this applied-linguistic field of investigation was rather neglected and that it took another twenty

years to see some more intensive research in that field. This neglect in the Eighties and Nineties may have been influenced by the discussions about Krashen's Monitor Model and by the success of the pragmatic turn. But none of this can explain why the cognitive turn in linguistics has not been more seminal for language pedagogy thus far. Apart from some initial papers by Dirven (1989), Dirven & Taylor (1994), Taylor (1987, 1993), Rudzka-Ostyn (1988), Serra-Borneto (1993), and Smith (1987, 1993), most of the field has remained barren in the Nineties.

The lack of cognitive research in FLT stands in strong contrast to the rich research output in the areas of lexical and metaphor teaching in applied linguistics as testified in the survey article by Boers & Lindstromberg (2006), and more recently, their collective volume on teaching vocabulary and phraseology (2008). A possible explanation for this discrepancy between the popularity of lexis and the relative lack of interest in grammar may be the tremendous success of Lakoff & Johnson's (1980) bestselling book *Metaphors We Live By*, which attracted most of the new generation of researchers into the cognitive world so that relatively little attention was paid to linguistic structures at the sentential, let alone, discoursal levels.

It was not until 2000 that a new start was taken with the LAUD Symposium in Landau, Germany. The general theme of the symposium was Applied Cognitive Linguistics, which also became the title of the twin volumes edited by Pütz, Niemeier, & Dirven (2001), namely *Theory and Language Acquisition* (Vol. I) and *Language Pedagogy* (Vol. II). This was followed a few years later by Achard & Niemeier's (2004) *Cognitive Linguistics, Second Language Acquisition, and Foreign Language Teaching*. Since then, we have witnessed the publication of Lantolf & Thorne (2006), Robinson & Ellis (2008), De Knop & De Rycker (2008), with De Knop, Boers, & De Rycker (forthcoming) in the pipeline. Only De Knop & De Rycker (2008) is exclusively devoted to grammar teaching from a cognitive point of view, however.

The Significance of Cognitive Linguistics for Foreign Language Teaching

The CL enterprise differs from previous schools of linguistic analysis in that it views language as usage-based events and as a component of, and thus interacting with, other faculties of human cognition; these processes are laid down in communicable conceptualisations. This approach offers many ideas for rethinking FLT. Some of the main CL assets are:

- (1) the usage-based nature of grammar and language acquisition;
- (2) the interaction of grammar and cognition;
- (3) the symbolic nature, or meaningfulness, of *all* linguistic forms, including grammatical forms;
- (4) the lexicon-grammar continuum;
- (5) the network structure of meanings as concepts laid down in language.

Let us look at each of these in turn. It is not our intention, however, to cover any of these in detail. For more information on the CL framework, see, among many others, Croft & Cruse (2004), Ungerer & Schmid (2006), and Radden & Dirven (2007). Our main aim here is to touch upon the implications of these assumptions and key insights for the instruction and learning of foreign languages.

- (1) **The usage-based nature of grammar and language acquisition**
 The usage-based, bottom-up model of language acquisition that cognitive linguistics adheres to (e.g. Langacker, 2000; Tomasello, 2003) is very much in line with new methods of language teaching, in which meaningfulness, communication, and context, but also authenticity are highly valued (see Section 4). Focussing on meaningful and authentic language inevitably raises the issue of frequency. For example, modern methods of grammar teaching with a “focus on form” approach (Long, 1988; 1990) introduce grammar in the context of communication and primarily focus on language in use. Also, as Boers, De Rycker, & De Knop (forthcoming) argue, since naturalistic acquisition and learning especially privileges high-frequency items, i.e., both words and constructions, FLT should be paying more attention to inputting lower-frequency items.
- (2) **The interaction of grammar and cognition**
 Situations and objects cannot be described as they are but as they are conceived and construed, i.e., as the result of our conceptualisation and the communication of our conceptual world. This means that the worlds of physical, psychosocial, and mental reality are experienced in a given sociocultural community and that they are organised by the speakers of linguistic communities into conceptual categories. Lexical expressions as well as grammatical constructions are not determined by objective properties but reflect these linguistically and culturally. Moreover, they are closely related to perception and to the whole bodily basis of cognition. This guarantees a universal dimension to

language and culture as well. Grammar structures many aspects of reality as conceived in cultural communities and makes the categories laid down in language coherent. One of the challenges for a CL-oriented approach to FLT will be to show how a particular language expresses its conceptual categories.

(3) The symbolic nature or meaningfulness of *all* linguistic forms, including grammatical forms

All linguistic expressions, also grammatical ones, are symbolic, i.e., are composed of a semantic pole and a phonological pole, which implies that grammatical structures are meaningful, and that differences in grammar reflect meaning differences. Therefore, the grammar of a language should not be regarded as a set of so-called purely syntactic and morphological rules, that is, meaningless rules, which can only be learned but which are hardly motivated. The aspect of “motivation” provides interesting opportunities for FLT, as it can be assumed that learning about the cognitive motivation of grammatical variability in a particular target language increases the understanding of the target language system, and may help improve mastery of that system.

(4) The lexicon-grammar continuum

CL starts from the assumption that “lexicon and grammar form a continuum consisting solely in assemblies of symbolic structures” (Langacker, 2008, p. 8). A symbolic structure results from the relationship between a semantic structure and a phonological structure. Grammar is meaningful, not an autonomous formal system characterized by arbitrary restrictions. Speakers “assemble” words and phrases into meaningful sentences, many of them according to conventionalised patterns or constructions. Just like single words, grammatical units are likely to be polysemous, having a prototypical meaning and an array of less central values resulting from an elaborated multifaceted conceptual substrate. To quote Boers, De Rycker, & De Knop (forthcoming), “[o]ne of the consequences of this is that due attention must be given to multi-word items (such as strong collocations and other word partnerships).” The realization that words tend to have their own grammar, and conversely, that grammatical structures display preferences for certain words (Taylor, forthcoming), has undoubtedly been helped along, as these authors observe, by the analysis of large corpora. In this respect, it is relevant to refer to one of the founding fathers of corpus linguistics, Sinclair (1991), who emphasises the

ubiquity of what he calls the *idiom principle* (as opposed to the *open-choice principle*) in natural language use.

- (5) The network structure of meanings as concepts laid down in language. The meanings or senses of linguistic expressions are normally structured and modelled in terms of a network structure centred around a prototype (Broccias, 2008), with more peripheral members somewhat removed from the prototype – the latter are to be regarded as extensions of the prototype. Such meaning extensions are arrived at through a number of semantic processes such as metaphor and metonymy. The processes of metaphor and metonymy have been extensively studied in cognitive semantics – they offer a kind of indirect access to the concepts in which we think. A metaphorical approach is by no means restricted to lexical categories; it can also be applied to the study of the meaning of grammatical structures – see, e.g., Sweetser (1990) for an account of the semantics of modal verbs. The impact of the metaphor concept in grammar teaching becomes clear in De Knop & Dirven (2008) and De Knop (submitted). Moreover, the network model – which makes use of prototypes and processes like metaphorization – enables the learner to visualise meaning relations and so may facilitate SLA.

New Developments

Recently FLT research has been able to benefit enormously from advances in CL (e.g. Lakoff, 1987; Langacker, 1991; Taylor, 2002). As a consequence, CL has become more and more interested in turning its rich, specialized, and emerging body of research into a practical guide for language teachers, course designers, and materials writers. To that end, CL-based classroom instruction in a foreign language needs to show that (i) it can move beyond the largely unmotivated rules, examples, and lists typical of the traditional paradigm; (ii) that it can produce results-driven grammar instruction and practice; and (iii) that it can ultimately balance all of this properly with new insights gained from second-language acquisition research.

With respect to the first two points, let us quote extensively from Boers, De Rycker, & De Knop (forthcoming). The proposals made in the early days of ACL were indisputably groundbreaking. See, for example, Pütz, Niemeier, & Dirven (2001), i.e., the first collective volume dedicated explicitly to the use of CL in language pedagogy. However, we need to

acknowledge that these early proposals suffered from roughly two weaknesses. Firstly, they were mostly just that – proposals – and were not backed up by empirical evidence for their pedagogical effectiveness. Secondly, they offered little argumentation for the choice of language elements to be targeted in the proposed instructional methods. Today, however, much more care is taken to assess CL-inspired instructional methods by means of experimental and/or corpus data. The result is a growing body of evidence of the limitations as well as the merits of CL-oriented FLT and also a more informed idea of how to fine-tune the pedagogical applications that have been tried so far.

The maturation of the FLT strand within ACL has not come entirely from within, however. Increased contacts with a recent strand of SLA research have undoubtedly stimulated many of the advances. The type of SLA research that we have in mind here is one in which the modifier “cognitive” is used to characterize its overall approach: Skehan (1998) and Robinson & Ellis (2008). Though rooted in applied rather than descriptive linguistics, its premises have a lot in common with those of ACL. For example, insights from applied cognitive psychology (including models of attention and memory) are highly relevant for language acquisition and learning (e.g. Robinson, 2003; Robinson & Ellis, 2008). Furthermore, acquisition depends on quantity and quality of input, and the frequency of encounters with given elements markedly influences the likelihood of their uptake and thus also the order in which these elements are acquired (e.g. Ellis, 2002). This can be related to the CL premise that first-language acquisition is usage-based, it is the outcome of what is sometimes called “emergentism” in contemporary SLA research jargon (e.g. Ellis and Larsen-Freeman, 2006). There is thus no need to postulate any such thing as an innate “universal grammar” or a “language acquisition device” as Chomskyan linguists are wont to. ACL proponents and cognition-oriented SLA researchers found a joint forum in March 2008, at the 33rd International LAUD Symposium (Landau, Germany), organized under the title *Cognitive Approaches to Second/Foreign Language Processing: Theory and Pedagogy*. A selection of papers presented at that symposium will be published in De Knop, Boers, & De Rycker (forthcoming).

As for the integration of CL and SLA research, mention should be also made of Lantolf & Thorne’s (2006) seminal work on sociocultural theory (SCT), a theory about the development and functioning of higher mental functions based on Vygotsky, and how primary SCT constructs like mediation, internalization, imitation, and “zone of proximal development” can help classroom FLT. Clearly, a thorough discussion would lead us too

far. Suffice it to say that higher-level cultural tools like language, categorization, and rationality “serve as a buffer between the person and the environment and act to mediate the relationship between the individual and the social-material world” (Lantolf & Thorne, 2007, pp. 198-199). In this view, language helps us to voluntarily and intentionally regulate our physical but also our mental activities. It is the most pervasive and most powerful cultural artifact that we have to mediate our connection to the world, to others, and to ourselves. It is obvious that CL and SCT meet each other in emphasizing the groundedness of language in general cognitive abilities, and that as far as FLT is concerned, more attention should be paid to understanding communicative processes as being inherently cognitive processes. Where SCT can enrich CL is through the former’s more pronounced orientation towards interpersonal interaction and participation in sociocultural activities.

Conclusions

In his plenary at the 40th International Annual IATEFL Conference held in 2006, Swan (2007, p. 48) argues that a “properly-balanced language-teaching programme ... has three ingredients – extensive, intensive and analysed – at both input and output stages” and that all three of these ingredients are equally important. First of all, language learners need exposure to extensive “quantities of spoken and written language, authentic or not too tidied up, for their unconscious acquisition processes to work on” (Swan, 2007, p. 46). And they also need opportunities to produce free writing and speaking themselves. Note that all this ties in perfectly with the usage-based approach that Langacker (2001) advocates: “optimal language development requires interactive exposure to large quantities of natural speech in context.” Secondly, learning will also gain from “intensive engagement with small samples of language which they can internalize, process [in the sense of comprehend], make their own and use as bases for their own production” (Swan, 2007, p. 47). The third ingredient in successful language teaching is what is called “analysed input,” i.e., learners require “information about the workings of particular aspects of the language, presented implicitly or explicitly” (Swan, 2007, p. 47). Again, this should go hand in hand with plenty of output practice in the form of exercises and tests. Of course, as Swan (2007) points out, the value of this kind of deliberate grammar teaching has become rather controversial over the past thirty years. And also, even when sufficient emphasis is put on the presentation of analysed input and

output, the question remains as to what kind of linguistic theory is best placed to provide the overall framework for that analysis.

What CL brings to the multifaceted field of language pedagogy – more than any other contemporary form of linguistics – is “a strong conceptual unity” (Kristiansen et al., 2006, p. 14). It is this unity in theoretical assumptions, basic units, and constructs that is expected to offer a better insight into the nature of language and grammar and further improve the efficiency and effectiveness of existing second and foreign language teaching. Our brief discussion has hopefully made clear that a cognitively-oriented approach to FLT can only be based on a model that offers a sufficiently streamlined integration of the dominant strands in CL, including corpus linguistics, contrastive linguistics (e.g. error analysis), and experimental psycholinguistics, as well as the new insights gleaned from recent cognitive and sociocultural models. As pointed out in the introduction to our paper, it is such an integrated model that should guide us when deciding what linguistic items to teach and how.

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