

In Press in Language Teaching (2018), 51, 2

Research Timeline: L2 Semantics from a formal linguistic perspective

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Introduction

Ever since Aristotle and Plato (*The Categories; Cratylus*), linguists have considered language to be the pairing of form (sounds or gestures or written strings) and meaning. This is true for all meaningful linguistic units from morphemes, through words, phrases and sentences, to discourse. Generally speaking, semantics is the study of how form and meaning are related. However, semantics is more narrowly construed as excluding those meanings that derive from speaker intensions and psychological states, as well as sociocultural features of the context. Furthermore, the boundary between semantics proper and pragmatics is intensely debated and to some researchers constitutes an empirical question. Formal semantics came into being as a system describing formal languages, that is, the mathematical and logical languages of computing machines as opposed to the natural languages of human beings. However, in the late 1960s the philosopher Richard Montague argued that natural languages such as English could be fruitfully described using the same rigorous rules and correspondences utilized in the description of formal languages. Modern formal semantics was born and is currently prospering as a branch of linguistics.

Before we embark on considering how form–meaning correspondences are acquired in a second language (L2), it is important to consider what is there to be acquired. In other words, what are the semantic differences between two natural languages, for instance between English

and Spanish? The study of semantic universals (von Stechow & Matthewson, 2008; Bach & Chao, 2012) is based on the strong Effability Hypothesis (Katz 1976: 37).

- (1) Effability: Languages are by and large equivalent in their expressive power. There is no meaning that is expressible in one language and not expressible in another.

Assuming this hypothesis as a general guide or heuristic forces us to see semantic universals as general laws delineating and describing meanings articulated in all human languages in one way or another. The main question of language variation then shifts to: How are these universal meanings expressed? If all languages have, in principle, the same expressive power, the differences must lie in the type and especially in the size of the linguistic sign needed to encode a given meaning. One language may possess a single morpheme or word to express a given meaning while another language would need a whole story to encode that same meaning. In anticipation of linguistic Minimalism, van Benthem (1991) conceives of systemic semantic universals as arising from the fact that languages are constrained by reflecting human cognition.

What is the task of the second (and additional) language learner? This learner already has one language in her mind/brain, her native language, and all possible meanings are thus available to her. If all meanings are in principle expressible in all languages, then it is only the various

To extend this example to acquisition, consider the learning task of the English-native learner of Bulgarian. At first, this hypothetical learner might not notice the functional morpheme *-l* in the verbal paradigm, especially because there is a lot of idiosyncratic variation in the paradigms. Transfer from English would ensure that this learner considers the Bulgarian sentence in (2) and all the sentences like it as vague with respect to whether the propositional event is hearsay or not. Though this particular learning situation has not been investigated in second language acquisition (SLA) to my knowledge, it is likely that the evidential meaning will come into the grammar at post-intermediate proficiency levels, when the learner acquires the meaning contrast between *vid-ja* and *vid-ja-l*. It is not enough that the learner recognizes the existence of the two forms: she must pair each one of them with their distinct meanings.

The example demonstrates that languages vary not in the meanings they express but in the means of expression. In this research timeline, I will examine how the pairing, or mapping, of form and meaning has been investigated in SLA. In order to impose some system on the various meanings, I will largely follow the outline of *Semantics: An International Handbook of Natural Language Meaning* edited by Claudia Maienborn, Klaus von Heusinger and Paul Portner, volume 2. Since not all meanings studied by formal semanticists yield themselves easily to empirical study, and not all meaning expressions constitute interesting crosslinguistic variation, only those investigated in SLA will be represented in the timeline. In order to delineate the

subject-matter, only studies that consider knowledge of meaning will be included, disregarding studies looking at the (un)acceptability of morphosyntax.

A. Constraints on possible lexical items

A1. Causative and inchoative verbs

A2. Dative and double object structures

A3. Psych(ological) predicates

A4. Unaccusative and unergative verbs

A5. Motion verbs

B. Noun Phrase semantics

B1. Pronouns

B2. Definiteness and Specificity

B3. Quantifiers

B4. Bare and mass noun phrases, plurals

B5. Genericity

C. Verbal Phrase semantics

C1. Lexical aspect (aspectual classes of verbs)

C2. Grammatical aspect (perfect and progressive)

C3. Verbal mood (subjunctive)

C4. Deverbal nominalization

D. Semantics of Adjectives and Adverbs

E. Clausal-level semantics

E1. Tense

E2. Modality

E3. Conditionals

E4. Scope and negation

E5. Questions

E6. Ellipsis

F. Discourse-level semantics

F1. Topic and Focus

F2. Discourse effects of word order (WO) variation

The broad categories range from lexical meaning to discourse meaning. While it has been argued that lexical items rarely have exactly the same meaning (denotation as well as connotation) in language after language, there are solid candidates for universal constraints on possible lexical items. One such universal are aspectual lexical classes of the Vendler (1967) type (van Valin 2006), or at least the building blocks from which event types are composed (von

Fintel & Matthewson, 2008). Meanings pertaining to different types of noun phrases (e.g. definite, specific, generic, etc.) come next. Verbal phrase meanings start from lexical aspectual classes but also include the grammatical morphemes operating on those classes to change their meanings in predictable ways. The broad topic of adjective modification is not very widely studied in L2A, unlike clausal-level semantics, where there is much more research. The final category deals with discourse-level meanings of Topic and Focus. Justifiably, the stronger emphasis in L2A research has been on the meanings whose expressions vary from language to language (e.g. tense, mood, aspect) than on meanings that may be truly universal (e.g. compositionality, presuppositions), and so this bias is reflected in the timeline.

References

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Year	References	Annotations	Theme
1983	Huebner, T. (1983). <i>A longitudinal analysis of the acquisition of English</i> . Ann Arbor: Karoma.	Huebner analyzed the acquisition of English by one adult Hmong speaker and provided an in-depth longitudinal study of L2 acquisition of the definite article. Even the first sample of the subject's speech had the correct definite article in 64% of [+SR+HK] contexts. It was also overused in many contexts. The indefinite article <i>a</i> did not make a systematic appearance in the first year of development.	B2
1984	Mazurkewich, I. (1984). The acquisition of the dative alternation by second language learners and linguistic theory. <i>Language Learning</i> 34, 1, 91-108.	A very early study of semantic constraints in the lexicon with clear predictions based on markedness. Within the dative–double object alternation, Mazurkewich tested the constraint that only verbs which present the indirect object as the “prospective possessor” of the direct object are possible in the double object construction. The double object is the marked construction because it is narrower in meaning. French and Inuit-native learners of English were tested on word order acceptability, to rule out native transfer. The acquisition sequence where unmarked datives precede marked double objects was attested.	A2
1986	Finer, D. & E. Broselow (1986). Second language acquisition of reflexive-binding. In <i>Proceedings of NELS 16</i> , S. Berman, J.-W. Choe & J. McDonough (eds.), pp. 154–168. University of Massachusetts at Amherst Graduate Linguistics Students Association.	This very early study on the choice of antecedents for reflexive pronouns (<i>himself, herself</i>) adopted a theoretical account describing five different choices of antecedents possible in languages of the world (Wexler & Manzini, 1987). The choice of antecedents for reflexives in English was examined. The researchers were among the first to use the Truth Value Judgment Task (TVJT), a task especially suited to investigations of meaning. Korean native speakers were shown to choose a type of antecedent which is neither that of the native language (where long distance subject antecedents are permitted) nor the L2 (where subject and object but only local antecedents are permitted). Instead, learners’ choice was like in Russian, where long distance antecedents are possible but only if the reflexive is in a non-finite embedded clause.	B1
1989	Thomas, M. (1989) The Interpretation of English Reflexive Pronouns by Non-	Following up on FINER & BROSELOW, Thomas (1989) is another early study investigating the possible antecedents of L2 English reflexives by speakers of 20 different languages. The instrument was a multiple-choice task asking the learners to	B1

	Native Speakers. <i>Studies in Second Language Acquisition</i> 11, 3, 281–303.	identify the possible antecedents of the reflexive. The learners did not uniformly choose local antecedents, wrongly allowing long-distance antecedents instead. They also displayed a preference for subject antecedents. This behavior was markedly different from the behavior of native speakers. Thomas also looked at the influence of pragmatics on the choice of antecedents, see also DEMIRCI 2000.	
1989	Thomas, M. (1989). The acquisition of English articles by first and second language learners. <i>Applied Psycholinguistics</i> 10, 335–355.	Using an early account of semantic features captured in articles, specific referent [SR] and hearer knowledge [HK], Thomas compared child L1 learners and adult L2 learners. Both populations have been observed to overgeneralize the definite article in indefinite contexts. Thomas' L2 learners overused <i>the</i> in first mention contexts and seemed to relate it to the SR feature. This study is a precursor of IONIN, KO AND WEXLER (2004) in relating definiteness errors to specific contexts. It also provided evidence of an acquisition strategy common to L1 and L2 learners.	B2
1990	Gibbs, D. (1990). Second Language Acquisition of the English Modal Auxiliaries can, could, may, and might. <i>Applied Linguistics</i> 11, 297-314.	Knowledge of modal verb interpretation is an understudied area of L2A. A very early study, Gibbs assessed Panjabi-speaking pupils on their expression of the English modal auxiliaries <i>can, could, may, and might</i> . She elicited responses for four root modality meanings: ability, permission, possibility, and hypothetical Possibility, as well as the epistemic possibility meaning, in declarative, negative and interrogative sentences. Performance was subjected to error analysis. The primary school pupils performed better than the secondary school groups, and the author interpreted this as an age effect. The three root meanings emerged roughly at the same time, followed much later by hypothetical and epistemic possibility. Thus the L2 acquisition of modal meanings was argued to follow L1 acquisition orders.	E2
1991	Andersen, R. W. (1991). Developmental sequences: The emergence of aspect marking in second language acquisition. In T. Huebner & C. A. Ferguson (Eds.), <i>Crosscurrents in second language acquisition and linguistic theories</i> (pp. 305-324). Amsterdam: John Benjamins.	Andersen presents an early version of the Aspect Hypothesis (see also ANDERSEN AND SHIRAI 1995). It is based on a longitudinal study of two native speakers of English, one child and one adolescent, learning L2 Spanish. Andersen noticed an interesting distinction in their development of tense–aspect marking: the past tense (preterit) markers emerged with punctual and achievement verbs, whereas the imperfect markers emerged with verbs that denote states. Based on these empirical results, Andersen postulated a sequence of developmental stages. The development of the past tense seemed to spread from achievement verbs to accomplishment verbs to activities and finally to states. The situation was different for the imperfect, which appeared later than the perfect. It spread in the reverse order—from states to activities to accomplishments, and then to achievements. Thus, the emergence of the tense–aspect morphology was	C1, C2, E1

		constrained by lexical aspect (aspectual classes of verbs).	
1992	Bley Vroman, R. & N. Yoshinaga (1992). Broad and narrow constraints on the English dative alternation: Some fundamental differences between native speakers and foreign language learners. <i>University of Hawai'i Working Papers in ESL</i> , 11, 157–199.	Bley Vroman & Yoshinaga tested the so-called broad and narrow semantic constraints on the dative-double object alternation. The requirement that the double object has to encode change of possession is considered a broad constraint, available to learners through Universal Grammar. In opposition, narrow constraints are language specific. Japanese learners of English rated the acceptability of real and nonse (made-up) verbs in sentences in context with pictures. The results demonstrated excellent ability on the part of the learners to acquire broad constraints but a degraded ability to acquire and apply narrow constraints. These findings were interpreted to offer support of the fundamental difference between first and SLA.	A2
1995	Dietrich, R., Klein, W., and Noyau, C. (1995). <i>The acquisition of temporality in a second language</i> . Amsterdam: Benjamins.	An example of the meaning-oriented approach to tense and aspect acquisition, and championed largely by European functionalists, Dietrich et al. used longitudinal production data from the European Science Foundation project. The learners were guest workers learning the language of their host country. The study design placed temporal concepts— such as the past—at the center of the investigation and asked how developing systems expressed such concepts. These inquiries were able to capture pre-morphology stages of interlanguage, in which adverbials and other lexical items were used by learners to make temporal reference and show how learners gradually add tense-aspect morphology to their linguistic repertoire.	E1
1996	Juffs, A. 1996. <i>Learnability and the Lexicon: Theories and Second Language Acquisition Research</i> . Amsterdam: John Benjamins	Juffs identified a parameter in the lexicon: English verbs allow the meaning primitives CAUSE and STATE to be conflated in the same verbal root, while Chinese does not. For example, in English psych(ological) verbs this conflation pattern allows Theme subject and Experiencer object verbs (e.g., <i>The book disappointed Mary</i>), while Chinese equivalents are unacceptable. Juffs tested Chinese native speakers learning English in China on acceptance and production of psychological, causative, and locative verbs that do not have an equivalent in Chinese. Learners at low to advanced levels of proficiency were sensitive to the conflation pattern of English, having acquired structures unavailable in their native language.	A1, A3
1996	Andersen, R., and Shirai, Y. (1996). The primacy of aspect in first and second language acquisition: the pidgin–creole	Andersen & Shirai describe four acquisition associations, predicted to repeat from language to language: 1) Learners first use (perfective) past marking on achievements and accomplishments, eventually extending use to activities and statives. 2) In languages that encode the perfective/imperfective distinction, imperfective past appears	C1, C2, E1

	connection. In <i>Handbook of Second Language Acquisition</i> , W. Ritchie and T. Bhatia (Eds.), (pp. 527–570). San Diego, CA: Academic Press.	later than perfective past, and imperfective past marking begins with statives, extending to activities, accomplishments and achievements. 3) In languages that have progressive aspect, progressive marking begins with activities, and then extends to accomplishments and achievements. 4) Progressive marking is not incorrectly overgeneralized to statives. The authors explain these associations with innate cognitive biases in the spirit of Bickerton’s language bioprogram hypothesis.	
1997	Kanno, K. (1997). The acquisition of null and overt pronominals in Japanese by English speakers. <i>Second Language Research</i> 13, 265–287.	Pronouns take their meanings from the person(s) or thing(s) they refer back to, their <i>antecedents</i> . It has been noticed that, while null pronouns can refer to all kinds of antecedents, overt pronouns are prohibited from having quantified (<i>everyone</i>) or negative (<i>no one</i>) antecedents. This behavior is regulated by the Overt Pronoun Constraint and is restricted to null subject languages. Kanno investigated whether English-speaking learners of Japanese observed this principle. Using a coreference judgment task, she showed that L2 learners recognized this meaning distinction. In addition, learners’ behavior was non-distinguishable from that of native speakers.	B1
1997	Dekydtpotter, L., R. Sprouse & B. Anderson (1997). The interpretive interface in L2 acquisition: The process–result distinction in English–French interlanguage grammars. <i>Language Acquisition</i> 6, 297–332.	Dekydtpotter et al. explore knowledge of deverbal nominalizations, more specifically, nouns created from verbs with Agent and Theme arguments and denoting process or result of an action (e.g., <i>destruction</i>). French deverbal nouns exhibit some word orders whose equivalents are not found in English, resulting in interpretative differences. At issue is whether native speakers of English can acquire the meaning –word order mapping in L2 French. In this study, the authors developed their pioneering truth–value judgment methodology, which they used in a series of follow-up studies of the syntax-semantics interface (see also DEKYDTSPOTTER & SPROUSE 2001). Contexts were provided in the native language while the test sentences were in the target language. This allowed the researchers to investigate complex semantic properties. The results of this study showed that advanced learners of L2 French performed similarly to native speakers. Even beginners and intermediate learners show some sensitivity to the subtle meaning distinctions.	C4
1999	White, L., C. Brown, J. Bruhn-Garavito, D. Chen, M. Hirakawa, and S. Montrul. 1999. Psych verbs in second language acquisition. In <i>The development of second</i>	White et al. investigated knowledge of Experiencer Subject verbs (<i>John fears exams</i>) and Experiencer Object verbs (<i>Exams frighten John</i>). The researchers assumed a universal thematic hierarchy, where Experiencer arguments are higher than Theme arguments. This hierarchy predicts that learners will have more difficulty with the unexpected Experiencer Object class. White et al.’s learners were native speakers of Malagasy, Japanese, French and Spanish. As predicted, learners had little difficulty with	A3

	<i>language grammars: a generative approach</i> , E. Klein and G. Martohardjono (Eds.), pp. 171-196. John Benjamins.	Experiencer Subject verbs, while the Experiencer Object verbs proved to be more problematic. The results suggested that learners were guided by the universal thematic hierarchy, rather than by L1 transfer and the L2 target properties alone.	
1999	Hirakawa, M. (1999). L2 acquisition of Japanese unaccusative verbs by speakers of English and Chinese. In <i>The Acquisition of Japanese as a Second Language</i> , Kazue Kanno (Ed.), pp. 89–113. Amsterdam: John Benjamins.	Unaccusative verbs are intransitive verbs whose only argument is a Theme, not an Agent, e.g., <i>fall, die, arrive</i> . In addition to subtle semantic differences, this lexical class manifests syntactically distinct behavior in some languages. Hirakawa tested knowledge of the distinction in the interlanguage of Chinese and English native speakers learning Japanese. One of the properties she investigated was whether learners were aware of the fact that the adverb <i>takusan</i> ‘a lot’ refers to underlying Theme arguments only. She used a Truth Value Judgment Task (TVJT) with pictures to probe underlying linguistic knowledge. Again as in JUFFS’ and INAGAKI’S studies, the findings indicated successful acquisition. Those learners who had acquired the subtle meaning of <i>takusan</i> were also accurate on the distinction between unaccusative and unergative verbs.	A4
2000	Montrul, S. (2000). Transitivity alternations in L2 acquisition: Toward a modular view of transfer. <i>Studies in Second Language Acquisition</i> , 22, 229–273.	The causative–inchoative alternation (e.g. <i>John broke the vase–The vase broke</i>) exists in most languages; however, functional morphology may mark the argument structure change or not. Montrul investigated this alternation and its relation to inflectional morphology in L2 Spanish, L2 Turkish, and L2 English. The gist of her findings is that acquisition of argument crucially depends on the argument-change-signaling morphology. Learners who speak a language where alternations are overtly marked in the morphology are more sensitive to these alternations in a second language than learners whose native language has no overt morphological reflex of the alternation. These findings are echoed later in the WHONG-BARR & SCHWARTZ study.	A1
2000	Demirci, M. 2000. The role of pragmatics in reflexive interpretation by Turkish learners of English. <i>Second Language Research</i> 14, 4, 325-353.	Adopting Huang’s pragmatic theory of anaphora, in which the choice of antecedent of a reflexive depends on context, stereotype and knowledge of the world, Demirci studied the acquisition of English reflexives by Turkish native speakers. The antecedent-choice task contrasted biased and neutral contexts. Demirci argued that pragmatic knowledge plays an important role in L2 learners’ interpretation of reflexives, and interferes with their acquisition of the locality constraints in English reflexive binding.	B1
2000	Slabakova R. (2000). L1	Slabakova argues that the way Bulgarian and English mark telicity (potential endpoint	C1

	Transfer Revisited: The L2 Acquisition of Telicity in English by Spanish and Slavic Native Speakers. <i>Linguistics</i> 38, 739-770.	of the event, e.g., <i>eat an apple</i>) can be described by a parameter: Bulgarian (and all Slavic languages) mark telicity on the verb with derivational prefixes, while English (possibly Germanic languages) mark telicity through a combination of features of the verb and the object. In the acquisition of L2 English, Bulgarian speakers have to learn to pay attention to the object. One prediction is that they will treat all verbal phrases as atelic, since there are no visible prefixes on the English verbs. Spanish learners of English patterned with the native controls on telic and atelic sentence interpretation. Bulgarian low proficiency learners behaved differently: they were significantly more accurate on atelic than on telic sentences, thereby confirming the experimental prediction.	
2000	Bardovi-Harlig, K. (2000). <i>Tense and Aspect in Second Language Acquisition: Form, Meaning, and Use</i> , Wiley-Blackwell	Bardovi-Harlig's seminal book is essential reading for the scholar of tense and aspect in SLA. It explores the association of form and meaning in the acquisition of tense and aspect by adult learners of nine target languages. It surveys and synthesizes studies from five perspectives: meaning-based approaches, acquisitional sequences, the aspect hypothesis, the discourse hypothesis, and the effect of instruction. For our purposes in this research timeline, the most interesting is the meaning-based, or concept, approach: if we assume that adult L2 learners want to express a certain meaning (e.g., ongoing event), what means of expression are they using?	C1, C2, E1
2001	Dekydspotter, L. & R. Sprouse (2001). Mental design and (second) language epistemology: Adjectival restrictions of wh-quantifiers and tense in English-French interlanguage. <i>Second Language Research</i> 17, 1-35.	French allows interrogatives to be separated from their adjectival restriction as in the example below: <i>Qui fumait de célèbre au bistro dans les année 70?</i> Who smoked of famous in the bar in the 70s? 'Which famous person smoked in bars in the 70s? In continuous interrogatives (<i>qui de célèbre</i>), the answer can be someone who was famous in the seventies as well as someone who is currently famous. In the discontinuous interrogative, only a past celebrity is the appropriate answer. Using their trade-mark stories with a dialog evaluation task, Dekydspotter & Sprouse established that learners were capable of successfully combining the properties related to the French functional lexicon—the availability of <i>wh</i> -movement and discontinuous interrogatives—with the universal meaning-calculating algorithm.	D, E5
2001	Inagaki, S. (2001). Motion verbs with goal PPs in the L2 acquisition of English and	Another study examining differences in conflation patterns, Inagaki's is a bidirectional (English to Japanese and Japanese to English) study of motion verbs with Goal PPs. In English, one can say <i>John ran to school</i> , while in Japanese only the equivalent of <i>John</i>	A5

	Japanese. <i>Studies in Second Language Acquisition</i> , 23, 153–170.	<i>went to school running</i> is attested, because the meaning primitives MANNER and MOTION cannot be conflated in one verb. Using a picture followed by sentences to be judged for appropriateness, Inagaki found that there is evidence for directional differences in acquiring L2 conflation patterns. English learners of Japanese overgeneralized their native pattern, but Japanese learners of English had no trouble learning the new pattern on the basis of positive evidence. Such results highlight the issue of the positive and negative evidence in SLA: When negative evidence is required for the acquisition of a lexical constraint, acquisition is slower and knowledge is less accurate.	
2002	Whong-Barr, M. and B. Schwartz (2002). Morphological and syntactic transfer in child L2 acquisition of the English dative alternation. <i>Studies in Second Language Acquisition</i> 24, 579-616.	The novel contribution of Whong-Barr and Schwartz to A2 is considering child language learners from Korean and Japanese backgrounds. While Japanese disallows the dative–double object alternation, Korean allows it only with verbs equivalent to <i>for</i> -datives. Results from an oral acceptability judgment task (AJT) in the context of stories acted out with toys indicated that all L2 children overgeneralized the double object variant to verbs that do not allow it, similarly to native English children. In addition, only the Japanese but not the Korean-native children allowed illicit <i>for</i> -dative double objects in English. The authors attributed this behaviour to L1 transfer and point to the morphological marker of the double object construction as the reason Korean children are sensitive to this semantic constraint in English. As in MONTRUL (2000), the presence of overt morphology marking a meaning was highlighted as significantly aiding acquisition.	A2
2003	Montrul, S. & Slabakova, R. (2003). Competence Similarities between Native and Near-Native Speakers: An Investigation of the Preterit/Imperfect Contrast in Spanish. <i>Studies in Second Language Acquisition</i> , 25, 351-398.	Montrul & Slabakova addressed the Critical Period Hypothesis with comprehension data from one of the thorniest areas of the grammar: interpretations of Preterit and Imperfect aspectual tense in L2 Spanish. Experimental evidence from a TVJT and an entailment choice test suggested that many learners (almost 30%) in the total subject pool (including advanced to near-native speakers) and 70% of the near-native group performed like native speakers on all sentence types in all tasks. Although aspect is certainly a difficult area to master, particularly because the meanings of the imperfect are acquired quite late, L2 learners were clearly able to overcome the form-meaning mismatch between their native language and the target language. At least for this domain, it is suggested that successful acquisition of grammatical aspect interpretations is not only possible, but achieved.	C1, C2
2003	Slabakova, R. (2003).	Slabakova investigated how semantic meanings of verbal inflectional morphology were	C2

	Semantic evidence for functional categories in interlanguage grammars, <i>Second Language Research</i> 19, 42–75.	acquired by L2 learners in an instructional setting. The following properties were under investigation: 1) English simple present tense cannot denote an ongoing event; 2) progressive morphology is needed for an ongoing interpretation; and 3) English bare verbal forms denote completed events. All three properties are not instantiated in Bulgarian, the native language of the learners. Only the first two properties are explicitly taught in English classrooms in Bulgaria, while the third is not. Results of a TVJT indicated that L2 learners at all proficiency levels were aware of the English aspectual contrasts. It appears that they were able to acquire interpretive contrasts not transferable from their native language, including the one that was not explicitly taught in language classrooms.	
2004	Ionin, T., H. Ko & K. Wexler (2004). Article semantics in L2 acquisition: The role of specificity. <i>Language Acquisition</i> 12, 3–69.	This is a very influential account on the acquisition of definiteness in L2A, inspiring many follow-up studies. Ionin, Ko & Wexler argued that L2 learners whose L1s lack articles (Korean and Russian) fluctuate between two settings of the Article Choice Parameter. The latter is a purely semantic parameter regulating whether article systems in languages of the world are organized around definiteness (as in English) or around specificity (as in Samoan). L2 learners were predicted to fluctuate between these two meanings until they determine that English articles mark definiteness. Using elicitation and production tasks, the researchers showed that learners overused the definite article only in specific contexts, thereby providing support for the initial fluctuation.	B2
2005	Slabakova, R. (2005). What is so difficult about telicity marking in L2 Russian? <i>Bilingualism: Language and Cognition</i> , 8, 63-77.	The idea powering this experiment is that, keeping in mind the differences in telicity marking explored in SLABAKOVA (2000), the reverse learning task for English learners of Russian would be to acquire the telicity-marking prefixes. However, the semantics-marking task is compounded by a lexical learning task, since prefixes are derivational morphemes, and are lexically selected by verbs. While advanced learners were not distinguishable from native speakers, even the learners at lower levels of proficiency showed knowledge of the mechanism of telicity marking in Russian. The overwhelming difficulties in learning this property come from the lexical learning of prefix-verb combinations.	C1
2005	Gabriele, A. (2005). The Acquisition of Aspect in a Second Language: a Bidirectional Study Learners of Japanese and English. PhD	Gabriele investigated differences in the truth-values of the progressive operator in English and Japanese as second languages. On the surface, it looks like the Japanese inflectional morpheme <i>te-iru</i> and the English progressive form <i>be V-ing</i> are complete equivalents. However, a mismatch is manifested with achievement verbs: <i>te-iru</i> cannot have an ongoing but only a completed event interpretation. The Japanese to English	C2

	Dissertation, Graduate Center, City University of New York.	direction proves to be the difficult one, because the native interpretation of completion has to be pre-empted. Even high proficiency learners interpreted <i>The plane is arriving</i> to mean <i>The plane has arrived</i> . The author discussed different possible explanations of the differential difficulty.	
2006	Lozano, C. (2006). Focus and split-intransitivity: the acquisition of word order alternations in nonnative Spanish, <i>Second Language Research</i> 22, 145–187.	Discourse-level semantics interacts with word order and lexical semantics. One such learning situation is presented in null subject languages, where the subject can follow the verb if it is new information (Focus). However, subject–verb inversion is preferred with unaccusative, not with unergative verbs. When the whole sentence is focused in <i>What happened?</i> contexts, inversion is preferred for both classes of intransitive verbs. Lozano used this paradigm in an experimental study where advanced-proficiency learners of Spanish with English and Greek as native languages evaluated the acceptability of answers in context. Both groups of learners were accurate with the lexical property. However, they allowed both word orders (SV/VS) in presentational focus contexts equally. In other words, learners were not sensitive to the discursive constraint although they were able to observe the lexical distinction.	A4, F1, F2
2006	Slabakova, R. (2006). Learnability in the L2 acquisition of semantics: a bidirectional study of a semantic parameter. <i>Second Language Research</i> 22, 4, 498–523	Slabakova investigated a purely semantic property (interpretation of bare nouns) that is superficially unrelated to its syntactic trigger (proper names). English and Italian bare nouns (e.g. <i>brown dogs</i>) have identical syntactic form and distribution, but differ in available interpretations. Unlike them, proper names (<i>Old John</i>) display cross-linguistic constant meaning but variable word order. This variation is accounted for by a parameter set to one value in English and another one in Italian. A bidirectional study of indicated that successful acquisition was attested in both learning directions. In the English→Italian direction, the lack of one native interpretation in the target language (a contracting of the grammar) was achieved in the absence of negative evidence, in a Poverty of the Stimulus situation. In both directions, the semantic property was acquired based on input and/or positive evidence for the syntactic trigger of the parameter.	B4
2007	Belletti, A., E. Bennati & A. Sorace (2007). Theoretical and developmental issues in the syntax of subjects: Evidence from near-native Italian. <i>Natural Language and Linguistic Theory</i> 25, 657–689.	Belletti et al. targeted the production and interpretation of postverbal subjects as well as null and overt pronominal subjects by near-native speakers of Italian whose native language was English. They argued that properties related to the null-subject parameter are sensitive to discourse factors that determine the use of both postverbal subjects and pronominal subjects. In a series of the production and interpretation tests, they established that near-native speakers show non-native-like behavior in the use of postverbal subjects, and in the overuse of overt pronominal subjects in tensed clauses.	B1, F1, F2

		Although the errors were not extensive, their performance differed significantly from native speakers. These problems were attributed, in part, to lasting effects of discourse properties of the L1 English.	
2008	Iverson, M., Kempchinsky, P., & Rothman, J. (2008). Interface vulnerability and knowledge of the subjunctive/indicative distinction with negated epistemic predicates in L2 Spanish. <i>Eurosla Yearbook</i> 8, 135-163	Iverson et al examined the acquisition of two classes of subjunctive complement clauses in L2 Spanish: subjunctive complements of volitional predicates (purely syntactic) and subjunctive vs. indicative complements with negated epistemic predicates, where the mood distinction is discourse dependent (thus involving the syntax–discourse interface). Following BELLETTI ET AL., The researchers predicted that the latter case is more difficult for L2 learners. The prediction was borne out in the results from a scalar AJT. However, the data also showed that the indicative/subjunctive distinction with negated epistemics was acquired by advanced stages of acquisition, suggesting that not all properties that require the integration of syntactic and discourse information are impossible to master.	C3, E4
2009	Marsden, H. (2009). Distributive quantifier scope in English-Japanese and Korean-Japanese interlanguage. <i>Language Acquisition</i> 16, 135–177.	Sentences with quantifiers such as <i>some(one)</i> and <i>every(one)</i> provide the clearest evidence that some meanings are calculated with covert movement of the arguments. The English sentence <i>Someone read every book</i> has two possible interpretations. One construal (the preferred one) is that there is one person, call her X, who read every book. On the other construal, there are many books and many people: for each book Y, there was some person or other who read that book Y. Semanticists say that the quantified object takes scope over the subject. Japanese works differently from English in that the neutral word order does not allow the second construal. Marsden looked at the acquisition of such scope meanings in L2 Japanese by English and Korean native speakers. Half of the advanced English learners of Japanese demonstrated they had acquired the lack of one interpretation, thereby shrinking their native grammar to match the target language grammar. This feat was accomplished in the absence of evidence for the semantic change, in a Poverty of the Stimulus learning situation. (TOO LONG?)	B3, E4
2009	Duffield, N. & Matsuo, A. (2009) Native speakers’ versus L2 learners’ sensitivity to parallelism in VP ellipsis. <i>Studies in Second Language Acquisition</i> 31, 1–31.	Verb phrase ellipsis depends on syntactic parallelism: the elided VP has to be structurally similar to the overt one, compare a. <i>Someone had to take out the garbage. But I didn’t want to __</i> and b. <i>The garbage had to be taken out. #But I didn’t want to __.</i> This article examines sensitivity to this structural parallelism in verb phrase ellipsis constructions in English native speakers as well as in three groups of advanced L2 learners from Spanish, Dutch and Japanese backgrounds. The task was an online sentence completion task, where acceptability judgments as well as reaction times were	E6

		collected. The results of a set of experiments revealed subtle but reliable differences among the various learner groups. These differences were interpreted as showing that some L2 learners could acquire sensitivity to the English parallelism, overcoming the effect of transfer from the native language.	
2010	Rothman, J., Judy, T., Guijarro-Fuentes, P., & Pires, A. (2010). On the (un)-ambiguity of adjectival interpretations in L2 Spanish. <i>Studies in Second Language Acquisition</i> 32, 47–77.	Spanish allows pre- and post-nominal position of adjectives; however, their interpretation is different. In the pre-nominal placement, e.g., <i>los valientes Incas</i> the kind interpretation obtains: all Incas as a kind are brave. In the post-nominal placement, the set interpretation surfaces: <i>los Incas valientes</i> denotes only those Incas who were brave, but there were some non-brave ones as well. Rothman et al. explore the adult acquisition of these two interpretations, related to a specific syntactic analysis of nominal phrases. Researchers tested both syntactic and semantic knowledge. Results of intermediate learners were mixed. Crucially, however, all advanced learners demonstrated full convergence.	D
2011	Tania Ionin, Silvina Montrul, Ji-Hye Kim and Vadim Philippov. 2011. “Genericity distinctions and the interpretation of determiners in L2 acquisition”. <i>Language Acquisition</i> , 18, 242-280.	English encodes genericity with three types of NPs: bare plurals (<i>Lions are dangerous</i>), definite singulars (<i>The lion is dangerous</i>), and indefinite singulars (<i>A lion is dangerous</i>). These three NP types are not interchangeable: definite singulars and bare plurals can have generic reference at the NP-level, while indefinite singulars are compatible only with sentence-level genericity. Ionin et al. investigated whether L1-Russian and L1-Korean can distinguish between the different types of English generics. The results of a written acceptability judgment task showed that learners exhibited sensitivity to the two types of genericity. They were target-like on their interpretation of bare plural and indefinite singular generics, but had not acquired the interpretation of definite singular generics.	B2, B4, B5
2013	Ionin, T., Montrul, S. & Crivos, M. (2013). A bidirectional study on the acquisition of plural noun phrase interpretation in English and Spanish. <i>Applied Psycholinguistics</i> 34, 3, 483-518.	Ionin et al. investigated how L2 learners interpret definite plural noun phrases (e.g., <i>the tigers</i>) and bare plural noun phrases (e.g., <i>tigers</i>). Whereas Spanish allows definite plurals to have both generic and specific readings, English requires definite plurals to have specific, nongeneric readings. Generic readings in English are expressed with bare plurals, which are ungrammatical in Spanish in preverbal subject position. The English → Spanish study used a meaning-focused task to probe learners’ interpretation of definite plurals, whereas the Spanish → English study used a form-focused task to examine acceptability of definite and bare plurals in generic versus specific contexts. First language transfer was attested in both directions, at lower proficiency levels, whereas more targetlike performance was attested at higher proficiency levels.	B2, B4, B5

		Furthermore, just like monolingual and bilingual children, learners were found to be more successful with the forms than with the meanings.	
2013	Hwang, S. H. and D. Lardiere. 2013. Plural-marking in L2 Korean: A feature-based approach. <i>Second Language Research</i> 29, 1, 57–86.	Hwang & Lardiere examined the L2 acquisition of the Korean plural marker <i>-tul</i> by native speakers of English. They used five different tasks designed to probe for knowledge of particular features and restrictions associated with the so-called intrinsic and extrinsic (distributive) plural-marking in Korean. While the intrinsic plural is similar to English in that it pluralizes nominal phrases, the extrinsic plural pluralizes whole predicates, and can appear on adverbs and other categories. The results suggest that knowledge of both types of plural developed with increasing proficiency. However, the features associated with the intrinsic plural were more easily acquired than those of the extrinsic plural.	B4
2014	Borgonovo, C. Bruhn de Garavito, J. & Prevost, P. (2014). Mood selection in Relative Clauses, <i>Studies in Second Language Acquisition</i> 37, 33-69	Like IVERSON ET AL. Borgonovo et al. probed the acquisition of mood in Spanish relative clauses by native speakers (NSs) of English. When the indicative mood is used, the existence of a specific object, person or event is implied. The subjunctive mood, on the other hand, denotes any object that satisfies the condition expressed by the relative clause. In experimental tests, learners are dealing not with ungrammaticality, as both moods are possible in these contexts, but rather with differences in interpretation. General results showed that the learners could appropriately select the expected mood. Performance was not uniform across the various conditions tested. However, variability was not solely a product of L2 acquisition; it could be found among native speakers as well.	C3
2014	Ahern, A., Amenos-Pons, J. Guijarro-Fuentes, P. (2014). Interfaces in the interpretation of mood alternation in L2 Spanish: Morphophonology, semantics and pragmatics. <i>EUROSLA Yearbook</i> 14, 173-200.	Ahern et al studied the interpretation of mood choice in <i>if</i> -conditional constructions in L2 Spanish. Their multiple-choice interpretation task contained conditional utterances containing both regular and irregular indicative and subjunctive forms. Learners were of French and English backgrounds. Results showed a similar pattern in the answers of both experimental groups, although French has similarly marked conditional sentences while English does not. Furthermore, the findings demonstrated that even though the semantic features are the same in Spanish and French, the different conditions on their usage still constitutes reassembly of meanings. Neither the L1 nor the overall level of L2 Spanish proficiency was found to have a clear impact on the ability to interpret verbal mood alternations. However, variation among the native speakers was very pronounced, too.	C3, E3
2015	Kim, E., Montrul, S., & Yoon,	Kim, Montrul & Yoon investigated both anaphor and pronoun interpretation in English	B1

	J. (2015). The on-line processing of binding principles in second language acquisition: Evidence from eye tracking. <i>Applied Psycholinguistics</i> , 36, 1317–1374.	by Korean native speakers. The theoretical approach to binding they adopted, Reflexivity Theory, predicts that reflexives, whose interpretation is licensed in syntax, will be easier to interpret than pronouns, which require pragmatic as well as syntactic knowledge to interpret. The study used a visual world paradigm with eye tracking. The researchers concluded that the learners interpreted reflexives in a nativelike way, but demonstrated much more inaccuracy, hesitation and time delays when interpreting pronouns.	
2015	Cho, J. & Slabakova, R. (2015) A feature-based contrastive approach to the L2 acquisition of specificity. <i>Applied Linguistics</i> (doi:10.1093/applin/amv029). (In Press).	Cho & Slabakova examined the acquisition of the Russian indefinite determiners encoding specificity (<i>kakoj-to</i> ‘which’ and <i>kakoj-nibud’</i> ‘whichever’) by English and Korean native speakers. The authors employed a semantic feature-based contrastive framework (Lardiere 2008, 2009). The experimental results demonstrated that the morpheme <i>kakoj-to</i> was acquired early since English (<i>some</i>) and Korean (<i>eotteon</i> ‘some’) have corresponding morphemes with the same feature representation as the Russian <i>kakoj-to</i> . The morpheme <i>kakoj-nibud’</i> presented a greater difficulty since its feature make-up is not overtly realized in English or Korean, that is, learners had to re-assemble the target feature in a new combination. Such developmental patterns provide evidence that semantic feature re-assembly poses a challenge in second language acquisition.	B2
2015	Slabakova, R. (2015). Acquiring Temporal Meanings Without Tense Morphology: The Case of L2 Mandarin Chinese. <i>The Modern Language Journal</i> 99, 283–307.	Slabakova reported on an experimental study addressing the L2 acquisition of Mandarin temporality. Mandarin Chinese does not mark past, present, or future with dedicated morphemes; the native English of the learners does. It was hypothesized that, in their comprehension, learners would utilize the deictic pattern of expressing temporality, which postulates that bounded events tend to be interpreted as past and unbounded events as present. Bilingual native speakers and learners of Mandarin with English as their native language took three different interpretation tests. Learners’ temporal interpretation choices were highly accurate even at intermediate levels of proficiency, suggesting that the universal deictic pattern was not hard to acquire.	E1
	Marsden, H., Whong, M. & Gil, K. (2017). What’s in the textbook and what’s in the mind: Polarity item “any” in learner English. <i>Studies in Second Language Acquisition</i> ,	Marsden et al. investigate L2 knowledge of the English polarity item <i>any</i> , which can appear in a clause only if Negation is in a higher structural position, e.g. <i>Jenny denies that she ate any cake</i> versus <i>*Jenny thinks that she ate any cake</i> . The contexts in which this indefinite pronoun can appear are partially covered in foreign language textbooks. The authors test whether Arabic learners’ knowledge depends on whether <i>any</i> appears in contexts which are taught, contexts that are not taught but learnable from the input,	B1, B3, E4

	<p>Articles in press, 1–28, 10.1017/S0272263117000018.</p>	<p>and contexts that are neither taught nor clearly observable in the input. The findings suggest that the most robust knowledge appears in the instructed contexts; however, knowledge of <i>any</i> in untaught and unobservable contexts arises with increased proficiency. In other words, both instruction and Universal Grammar constraints are important for acquisition, and they interact. In addition, conscious awareness of the rules did not predict good performance in this experimental study.</p>	
	<p>Dominguez, L. Arche, M., & Myles, F. (2017). Spanish Imperfect revisited: Exploring L1 influence in the reassembly of imperfective features onto new L2 forms. <i>Second Language Research</i>, 33, 4, 431–457, DOI: 10.1177/0267658317701991 .</p>	<p>Dominguez et al. revisits the acquisition of the Spanish Imperfect by English learners of Spanish. The learning task is expressed in terms of meaning features that learners have to reassemble from the way they are assembled in their native language functional morphemes. The researchers find that although the Imperfect is used from early on, the full array of interpretations associated with it (habitual, continuous and progressive) is not completely acquired even at advanced levels. More specifically, in habitual contexts learners accept the Imperfect but do not reject the Preterit. This issue persists even at advanced levels for continuous contexts. The authors argue that the incorrect low rejection of the Preterit signals mapping-type difficulties: meaning-related features expressed by two forms in English (past simple and past progressive) are realized onto a new form (the Imperfect). These findings demonstrate that the feature-based contrastive analysis of Lardiere (2008, 2009) is highly successful at predicting acquisition challenges.</p>	<p>C1, C2</p>

Biodata

Roumyana Slabakova is a Professor and Chair of Applied Linguistics at the University of Southampton, UK and Research Professor II at the UiT, The Arctic University of Norway. Her research interest is in the second language acquisition of meaning, more specifically phrasal-semantic, discourse, and pragmatic meanings. Her monographs include *Telicity in the Second Language* (Benjamins 2001) and *Meaning in the Second Language* (Mouton de Gruyter 2008). She co-edits the journal *Second Language Research* (SAGE) and is the founding co-editor of *Linguistic Approaches to Bilingualism* (Benjamins). Oxford University Press published her textbook *Second Language Acquisition* in March 2016.