Introduction

Lessons learned at the intersection of applied cognitive linguistics and L2 classrooms

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Since the early 1980s and the subsequent consolidation of Cognitive Linguistics (CL) as a well-established field in Linguistics, exploring the role that figurative language plays in our linguistic and conceptual systems has attracted a great deal of attention from scholars of different disciplines. One of the areas in which the application of the theoretical tenets of CL has been most fruitful is second language instruction, renamed Applied Cognitive Linguistics (ACL), where much has been discussed and attempted in order to improve both teaching and the learning experience of students (Della Putta & Suñer, 2023; Littlemore, 2023; Llopis-García, 2024; Piquer Píriz & Alejo-González, 2020, 2016; Piquer-Píriz & Boers, 2019; or Tyler et al., 2018).

However, despite decades of research, significant gaps remain. Firstly, in relation to potential teaching applications, very few attempts have been made to actually develop ACL-oriented teaching materials beyond specific interventions (Boers & Lindstromberg, 2009; Colasacco, 2019; Lazar, 2003; Llopis-García, 2024 or Rudzka-Ostyn, 2003 are some exceptions). Moreover, the valuable insights derived from this line of research have yet to permeate mainstream textbooks and pedagogical practices (Boers, 2013; Hijazo-Gascón & Llopis-García, 2019; MacArthur, 2017; Nacey, 2017). Secondly, from a research perspective, classroom-based studies are still scarce and make it challenging to find common ground for future research. In light of these considerations, this Thematic Section focuses on addressing the latter aspect.

Challenges to the success of empirical work

What makes an L2 classroom-based study successful and therefore, "publishable"? A quick look at indexed journals in L2 Linguistics and Second Language Acquisition shows that there is a tendency of researchers and journals to publish only sta-

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tistically significant results, with less presence of non-significant findings or null results. This can create a distorted view of the true effect of a classroom-based phenomenon, as researchers may be more likely to submit only "good results" and journals may be more likely to accept studies in which hypotheses and results agree. This can lead to biased literature that overestimates what *really happens* in classroom-based research, where there are so many factors involved that determining success looking only at final empirical data seems short-sighted and unrealistic (see Toth & Moranski, 2018 for an account for 50 years of Instructed SLA). We would like to address some of these factors here.

One of the primary challenges that L2 researchers face is the **unpredictability of the classroom environment**, which can make it difficult to control variables and obtain consistent results because of student profiles and individualities, such as learning styles, abilities, or motivations (DeKeyser & Prieto Botana, 2019). **Methodological considerations** also play an important role: The communicative approach and a notional-functional curriculum design have been present and expanding in L2 classrooms since the 1980s and any novel methodology will no doubt incur in additional processing demands for the learners (Martín-Gascón et al., 2023; Toth & Moranski, 2018). New teaching and learning techniques are exciting and innovative, but their novelty can confuse and challenge students, which is why making research hypotheses align with student outcomes after data collection is incredibly challenging (Bielak & Pawlak, 2011; Kissling et al., 2018; Qin et al., 2023, or Tyler, et al., 2011). Additionally, empirical studies often focus on specific aspects of language learning, such as a grammar structure or the acquisition of specific vocabulary, whereas language classrooms aim to develop a wider range of skills and competencies across different linguistic, interactional or cultural domains. This can complicate drawing direct comparisons between classroom experiences and research findings: Research studies hardly -if ever- mirror the actual reality of an L2 classroom (see Spada, 2019 for a discussion on the balance between methodological rigor and pedagogical applicability).

Time constraints are another issue in L2 classroom research. The study implementation has to navigate the academic schedule of a given course, which is already limited by the completion of the language curriculum, the assessment of student work, and a delicate day-to-day balance between teaching time and actual language practice. Conducting research during class, therefore, limits the amount of time available for data collection and disrupts the habitual learning environment (Llopis-García & Alonso-Aparicio, this Section).

A further complication in the process is **securing access to participants**, whereby obtaining permission and participant consent to conduct research can be challenging (Alhmoud and Piquer-Píriz & Martín-Gilete, this Section). Instructors, students, and even educational institutions may be hesitant to allow

outsiders into the classroom, which can restrict participant numbers. The researchers must also ensure that student privacy and confidentiality are maintained, and minimize any potential disruption to participants, their learning process and the goals of their course.

Finally, there is the question of **who conducts the research**: is it the language instructors themselves or someone else? Because instructors have limited time and resources to devote to research activities, they may be more focused on addressing immediate classroom needs and demands, while researchers may have other requirements to conduct rigorous research studies. Aligning the goals of both can prove difficult, because the former may prioritize improving student outcomes and teaching effectiveness in their daily practice, while the aim of the latter may be to generate particular knowledge and advance theory. That is why it is crucial to establish clear communication and expectations between language instructors and researchers (Piquer-Píriz & Martín-Gilete, this Section). This collaboration should be based on mutual respect and a shared understanding of the goals and methods of the research study. Additionally, researchers should prioritize practical considerations and work closely with instructors to ensure that their research aligns with the needs of the classroom (Martín-Gascón, this Section). Overall, conducting classroom-based research requires careful planning and coordination with all stakeholders involved. Everyone needs to be flexible, adaptable, and persistent in navigating the complexities of the classroom environment to ensure that the research is ethical and yields valid and reliable findings worth publishing, while also bringing positive learning outcomes for students.

The Thematic Section: Lessons learned and studies included

Based on all the constraints mentioned above, and in order to mitigate the effects of publication bias in empirical research, this Thematic Section seeks to bring transparency to the research community and ultimately, improve our understanding of the learning process in an instruction context. We present rigorous studies with non-significant, partial, or negative findings that we believe showcase high-quality research, regardless of the significance of their results. In doing so, we want to avoid duplication of efforts for future studies and help prevent other researchers from investing time and resources into a methodology, an assessment design, or a protocol that is unlikely to yield the desired outcomes.

The contributions included analyze varied applications of ACL in L2 classrooms where the target languages are English and Spanish (Ibarretxe-Antuñano et al., 2019 provide a review of ever-growing research in the latter language). The studies with English/L2 focus more on general vocabulary and idiomatic expres-

sions (Luo & Boers; Piquer-Píriz & Martín-Gilete; Ramonda), while those in Spanish/L2 revolve around grammatical constructions (Alhmoud; Llopis-García & Alonso-Aparicio; Martín-Gascón; Sánchez-Cuadrado & Castañeda-Castro).

For English, Luo and Boers conducted a study on the retention of figurative idioms among learners, comparing groups exposed to texts with or without glosses explaining literal meanings. Surprisingly, test scores between groups showed no significant difference, suggesting that literal explanations did not boost retention. However, interviews revealed diverse learner engagement, highlighting the need for mixed-methods research and qualitative analyses in addition to quantitative data. By examining both learning outcomes and individual processes, researchers can better understand instructional effectiveness. This study emphasizes the importance of considering learners' perspectives to refine teaching strategies for more effective language instruction.

Moving from learner perspectives to instructor considerations, but still highlighting the need to include qualitative data, Piquer-Píriz and Martín-Gilete's study explores the challenges of training L2 teachers and designing effective instructional materials. They argue that ACL insights are valuable for instruction but must consider linguistic, pedagogical, and stakeholder perspectives. Their study involved five researchers and four EFL teachers creating CL-oriented activities to teach polysemous meanings of the particles IN/OUT and UP/DOWN. These were implemented over three months with 81 Spanish students, compared to a control group (26). Although the qualitative feedback from the teachers was positive, no significant improvement in the learners' understanding of non-literal meanings of these particles was observed for the experimental group, highlighting the need for better testing tools and overall pedagogical experiences.

In another valuable contribution, the article by Ramonda discussed Japanese learners of English exploring metaphorical idioms. Studies often rely on convenience samples of intact classes, which may not represent random or diverse populations. Ramonda suggests that researchers can enhance study design and validity by addressing overlooked idiom-related variables (non-compositionality, semantic transparency, imageability or L1 equivalents), considering counterbalancing techniques, managing time-on-task, and making informed choices in treatment and data collection design. The author reflects on a previous study to provide proposals for improving future study quality in this domain.

For more on challenges and lessons learned and in Spanish/L2, Martín-Gascón's article delves into effects-of-instruction research in ACL. Existing research demonstrating the efficacy of a cognitive-based approach to L2 instruction is reviewed by using examples from previous L2 Spanish studies. Difficulties encountered in material design, assessment tests, pedagogical interventions, and data collection and analysis are explored. Methodological challenges discussed

include assessment, test effects, sample size, participant withdrawal, and time-on-task. Additionally, the study addresses potential solutions to these issues, aiming to advance understanding on research practices in this field.

Back to the call for alternative testing methods and study design, Sánchez Cuadrado & Castañeda Castro argue that L2 grammar studies often focus on validating grammatical concepts with learners, sometimes neglecting the need to test them against users' judgments and corpus searches. These include learner corpus searches (*Corpus de Aprendices de Español*), native-speaker corpus searches (EsTenTen-18 subcorpus), and language users' judgments. The pluperfect is often overlooked in learning materials due to its perceived simplicity, yet the data reveals instability in its use. This article discusses three pre-experimental validation methods to evaluate the pedagogical potential of Cognitive Grammar descriptions for the Spanish pluperfect, and recommends pre-experimental validation to ensure the development of effective pedagogical materials.

The next two papers present studies that have met different levels of challenges and that were iterated by making changes and tweaks to their methodological designs, but still did not reach the desired results. The authors reflect on the process and offer ideas and possible alternatives for future research. The first article, by Alhmoud, explores a quasi-experimental study evaluating animated versus non-animated and more conventional instruction materials for the teaching of comparative constructions in L2 Spanish. This study involved three iterations with varying participant numbers: 69, 18, and 27 students respectively. Although results were not statistically significant, the experimental group using images showed slight learning benefits. Certain issues with data collection impacted the results obtained, so while ACL holds potential for language education, more research is needed to connect theoretical principles with classroom practice. The second paper, by Llopis-García and Alonso-Aparicio, examines three quasi-experimental studies comparing a cognitive instruction (an embodied prototype within a mental space), to a conventional instruction linking verb tenses with temporal markers, and a control group. Results favored the cognitive approach only in production tasks in one study. Two follow-up repetitions, with adjusted instruction and assessment, found no significant differences between the experimental groups. The discussion highlights assessment design flaws, which may bias results toward conventional instruction, though the cognitive group still performed comparably. The paper advocates for exploring new assessment methods that align with cognitive-based approaches.

It is our view that these studies will provide important information and may contribute to the advancement of scientific knowledge by ruling out certain hypotheses about design and implementation of research, and by guiding future classroom-based inquiry in hopefully new and successful directions.

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References

Bielak, J., & Pawlak, M. (2011). Teaching English tense and aspect with the help of cognitive grammar: An empirical study. *Studies in Second Language Learning and Teaching*, *1*(3), 365–400.

Boers, F. (2013). Cognitive Linguistic approaches to teaching vocabulary: Assessment and integration. *Language Teaching*, *46*(2), 208–224.

Boers, F., & Lindstromberg, S. (2009). *Optimizing a lexical approach to instructed second language acquisition*. Basingstoke: Palgrave Macmillan.

Boers, F. (2013). Cognitive Linguistic approaches to teaching vocabulary: Assessment and integration. *Language Teaching*, *46*, 208–224.

Colasacco, M.A. (2019). A cognitive approach to teaching deictic motion verbs to German and Italian students of Spanish. *International Review of Applied Linguistics in Language Teaching*, *57*(1), 71–95.

Della Putta, P., & Suñer, F. (Eds.). (2023). Special Issue: Applying Embodied Cognition and Cognitive Linguistics to language teaching. *Review of Cognitive Linguistics*, *21*(1).

DeKeyser, R.M., & Prieto Botana, G. (2019). *Doing SLA research with implications for the classroom: Reconciling methodological demands and pedagogical applicability* (Issue Vol. 52). Amsterdam & Philadelphia: John Benjamins.

Hijazo-Gascón, A., & Llopis-García, R. (2019). Applied cognitive linguistics and foreign language learning. Introduction to the special issue. *International Review of Applied Linguistics in Language Teaching*, *57*(1), 1–20.

Ibarretxe-Antuñano, I., Cadierno, T., & Castañeda Castro, A. (Eds.). (2019). *Lingüística cognitiva y español LE-L2*. London: Routledge.

Lazar, G. (2003). *Meaning and metaphors: Activities to practise figurative language*. Cambridge: Cambridge University Press.

Littlemore, J. (2023). *Applying cognitive linguistics to second language learning and teaching*. Cham: Palgrave Macmillan.

Llopis-García, R. (2024). *Applied cognitive linguistics and L2 instruction*. Cambridge: Cambridge University Press.

Kissling, E. M., Tyler, A., Warren, L., & Negrete, L. (2018). Reexamining *por* and *para* in the Spanish foreign language intermediate classroom: A usage-based, cognitive linguistic approach. In A. Tyler, L. Huang & H. Jan (Eds.), *What is applied cognitive linguistics?* (pp. 229–256). Berlin: De Gruyter.

MacArthur, F. (2017). Using metaphor in the teaching of second/foreign languages. In E. Semino & Z. Demjén (Eds.), *The Routledge handbook of metaphor and language* (pp. 413–425). London: Routledge.

Martín-Gascón, B., Llopis-García, R., & Alonso-Aparicio, I. (2023). Does L2 assessment make a difference? Testing the empirical validity of applied cognitive linguistics in the acquisition of the Spanish/L2 psych-verb construction. *Language Teaching Research*, 1–25.

Nacey, S. (2017). Metaphor comprehension and production in a second language. In E. Semino & Z. Demjén (Eds.), *The Routledge handbook of metaphor and language* (pp. 503–516). London: Routledge.

Piquer-Píriz, A. M., & Alejo-González, R. (Eds.). (2020). *Metaphor in foreign language instruction*. Boston: De Gruyter Mouton.

Piquer-Píriz, A. M. & Alejo-González, R. (2016). Applying cognitive linguistics: Identifying some current research foci (figurative language in use, constructions and typology). *Review of Cognitive Linguistics*, *14*(1), 1–20.

Piquer-Píriz, A. M., & Boers, F. (2019). La lingüística cognitiva y sus aplicaciones a la enseñanza de lenguas extranjeras. In I. Ibarretxe-Antuñano, T. Cadierno & A. Castañeda Castro (Eds.), *Lingüística cognitiva y español LE/L2* (pp. 52–70). London: Routledge.

Rudzka-Ostyn, B. (2003). *Word power: Phrasal verbs and compounds. A cognitive approach.* Berlin: De Gruyter Mouton.

Qin, J., Wu, Z., & Zhong, S. (2023). When concept-based language instruction meets cognitive linguistics: Teaching English phrasal verbs with *up* and *out*. *International Review of Applied Linguistics in Language Teaching*, *61*(4), 1455–1480.

Spada, N. (2019). Discussion: Balancing methodological rigor and pedagogical relevance. In R. M. DeKeyser & G. Prieto Botana (Eds.), *Language Learning & Language Teaching* (pp. 201–215). Amsterdam & Philadelphia: John Benjamins.

Tyler, A., Huang, L., & Jan, H. (Eds.). (2018). *What is applied cognitive linguistics?: Answers from current SLA research*. Berlin: De Gruyter.

Tyler, A., Mueller, C., & Ho, V. (2011). Applying cognitive linguistics to instructed L2 learning: The English modals. *AILA Review*, *23*, 30–49.

Toth, P. D., & Moranski, K. (2018). Why haven't we solved instructed SLA? A sociocognitive account. *Foreign Language Annals*, *51*(1), 73–89.

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