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RESEARCH IN THE NEWS

Research initiatives in the foreign and second language education program of Florida State University: Multiple perspectives, multiple approaches

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Introduction

The faculty and students of the foreign and second language education program at Florida State University investigate second language acquisition (SLA) from multiple perspectives using a variety of approaches and methods. Our research can be roughly divided into three broad, overlapping areas: instruction, individual differences, and research methods. Within the realm of instruction, we have conducted several large-scale projects on form-focused instruction, task-based instruction, and corrective feedback. While instruction has been considered a learner-external factor, we have also investigated it from the learner's perspective such as learners' feedback-seeking behavior. Learners' individual differences have been a strength of our research program, and our work in this substantive domain can be subdivided into three major streams: cognitive aptitudes, motivation, and learner engagement.

We take a dynamic, interactional approach to individual differences, where (1) individual difference factors work together with environmental factors 'through dynamic, nonlinear processes that lead to striking emergent patterns over time' (Hiver & Al-Hoorie, 2016, p. 742), and (2) the role of an individual difference factor is not fixed, that is, whether it has a positive, negative, or null effect on the process and outcome of learning is contingent upon the attributes and characteristics of the learning condition or the learning task. We examine learners' as well as teachers' individual differences and the interface between the two. Within our third main area of research, research methods, we introduce new methods into the field, evaluate the quality of existing methods, and provide guidance on how to maintain the methodological rigor of empirical research. In the following sections, we elaborate each of the three main areas of research we have engaged in.[1]

Instruction

Shaofeng Li has led several projects on the effects of corrective feedback. A project conducted with middle school English as a foreign language (EFL) learners showed that feedback provided during learners' task performance was more effective than feedback provided after a communicative task was completed (Li, Zhu, & Ellis, 2016). However, the effects of feedback were largely restricted to explicit knowledge. Due to the theoretical and pedagogical significance of the timing of corrective feedback, a partial replication is underway to test the generalizability of the findings of Li et al. (2016) to other settings and to verify the authors' interpretations (Li, 2019). The replication study involves EFL learners at a vocational school who are studying English for non-academic purposes. To verify the hypothesis that the advantage for immediate feedback was due to the practice opportunities the learners had during task performance, a third treatment group (the other two being immediate feedback and delayed feedback) will be added that receives feedback during the interval between the two treatment tasks so that learners will have a chance to apply the knowledge learned through feedback in the

second task. An oral production task will replace the elicited imitation test as a measure of implicit knowledge, in light of the challenging nature of the latter identified in the original study.

Corrective feedback (CF) has also been investigated from the learner's perspective. Mostafa Papi has engaged in several projects investigating learners' feedback-seeking behavior (FSB). From Papi's perspective, the success or failure of instructional feedback depends more on the feedback seeker (i.e., learners) than on the feedback source (e.g., teacher) or technique. Learners use different strategies (i.e., MONITORING and INQUIRY) to seek CF as resources to advance their language development. Learners' characteristics, especially their motivation, thus play an important role in the success of such feedback. Papi, Rios, Pelt, and Ozdemir (2019), the first SLA study on FSB, found that foreign language learners' FSB largely depends on their motivational characteristics such as achievement goals and mindsets (i.e., implicit beliefs about the malleability of their language learning intelligence). In a follow-up study, mindsets were also found to be strong predictors of FSB in the context of second language (L2) writing. In addition, the learners' decisions regarding whether to seek feedback or not were predicted by the learners' cost-value calculations. The more the learners perceived the CF to be of value in their L2 writing development, the more they monitored and solicited it. Papi and his colleagues are currently conducting multiple research studies to investigate how classroom environment and teacher-student relationships affect FSB and how manipulating learners' cost-value calculations can lead to improvements in learners' FSB. This line of research is still in its infancy but has substantial potential for advancing SLA research.

Task-based learning and teaching (TBLT) occupies an important place in our research program. One ongoing initiative is a book project that aims to (1) provide a state-of-the-art account of TBLT by examining the different theoretical perspectives and the research that has been conducted and (2) discuss the problems that teachers face in introducing TBLT into their classrooms and how these problems can be addressed. Furthermore, Shaofeng Li has been involved in several empirical studies on the impact of pretask options on task performance. One study (Ellis, Li, & Zhu, 2019) showed that pretask grammar instruction led to learners' more frequent use of the target structure but had detrimental effects on learners' overall performance represented by the fluency, accuracy, and complexity of their speech production. Another ongoing study is examining the joint effects of anxiety and planning type on task performance. The study seeks to validate the construct of task anxiety by mapping its relationship with trait anxiety and foreign language anxiety and examine whether task anxiety has differential associations with learners' task performance under strategic and within-task planning conditions.

Individual differences

Shaofeng Li has conducted a number of projects on cognitive aptitudes, which include traditional language aptitude and working memory. In SLA research, cognitive aptitudes have been investigated in two ways: a predictive approach and an interactional approach. Predictive research simply examines the correlations between cognitive factors and learning outcomes regardless of context, whereas interactional research investigates whether cognitive factors play different roles in different learning contexts. Li's research has been primarily interactional. For example, a study that has been recently completed (Li, Ellis, & Zhu, 2019) examined the role of language analytic ability and working memory under five different instructional conditions distinguished by whether and when form-focused instruction is implemented. The study showed that language analytic ability was implicated when explicit form-focused instruction was unavailable, and working memory was significantly correlated with the effects of instruction types that imposed a heavy processing burden on learners' cognitive resources. In another ongoing project, Li seeks to validate measures of implicit language aptitude and identify its relationship with traditional (explicit) aptitude and L2 proficiency. It is hypothesized that implicit and traditional aptitude are correlated but dissociable and that they explain unique portions of variance of L2 proficiency.

Research on L2 motivation has recently taken a new turn with the innovative work published by Papi and his research teams (e.g., Papi, 2018). Based on their research conducted over the past decade, the researchers argue that understanding motivation is less about examining the quantity or intensity of motivated behavior. Rather, the quality of learners' cognitive, emotional, and behavioral engagement in the learning process varies depending on learners' personality and belief systems as well as the context of goal pursuit. Papi (2018) called this the 'motivation-as-quality' perspective, which he used in revising the L2 Motivational Self System (Dörnyei, 2009). Papi, Bondarenko, Mansouri, Feng, and Jiang (2019) proposed a revision that bifurcated the original self-guide components of the model (ought-to L2 self and ideal L2 self) into two standpoints (own and other). Papi, Bondarenko, et al. (2019) showed that in the English as a second language (ESL) context of the USA, the ideal L2 self/own predicted an eager strategic inclination towards learning (i.e., a tendency to maximize learning opportunities), the ought L2 self/own predicted a vigilant strategic inclination (i.e., a tendency to minimize learning opportunities due to fear of making mistakes), providing support for looking at motivation as a phenomenon that could lead to qualitative differences in learner cognitions, emotions, and behaviors.

Papi (2018) employed regulatory fit theory to explore learners' engagement in language learning tasks. Papi conducted an experiment in which he matched/mismatched the trait-like regulatory focus (promotion focus concerned with approaching positive outcomes vs. prevention focus concerned with avoiding negative outcomes) of ESL learners with the incentive structure of a reading/writing task (gain-framed—'You will gain points if…' vs. loss-framed—'You will lose points if…'). The results showed that the match between the prevention focus and the loss instructions resulted in significantly higher vocabulary learning. These results were not replicated for promotion-focused learners, who learned significantly more vocabulary than prevention-focused learners. Papi and his colleagues are currently conducting additional research studies to examine how regulatory fit between learners' chronic or induced regulatory focus and task characteristics can influence task engagement. Papi's research on task engagement could complement and enhance the cognitive approach to TBLT.

Papi and his associates have applied Dweck's (1999) mindsets in the context of language learning. Applied to FSB, Papi, Rios, et al. (2019) found that a growth mindset, the belief that intelligence or natural talent can always change, was associated with both learning and performance-approach goals, which in turn predicted feedback monitoring and inquiry, whereas a fixed mindset, the belief that intelligence cannot change, was only associated with performance goals and did not predict feedback monitoring. In an ongoing FSB study, Papi and his colleagues have found that among American students enrolled in foreign language writing classes, a growth mindset predicted the value of feedback, which in turn was a strong predictor of FSB in L2 writing. On the other hand, a fixed mindset predicted the self-presentation cost of feedback-seeking, which negatively predicted FSB. In another ongoing study among foreign language learners in US universities, mindsets have been found to predict learners' preference for explicit types of CF whereas a fixed mindset predicted preference for either conversational recasts or no CF.

Phil Hiver's research also examines learners' meaningful involvement and engagement in complex classroom settings. The premise of this line of work is that the type and quality of learners' engagement, and changes in that engagement over time, are key to understanding whether and in which ways learners benefit from classroom language learning opportunities. For example, one recent study of instructional contexts characterized by frustration and elevated failure in language learning (Yun, Hiver, & Al-Hoorie, 2018) showed that the learning gains students made could also be lost if they did not sustain their initial drive to learn, remain resilient to challenges, and overcome the pressures inherent to classroom language learning. Current research envisaged with several research teams in the US, China, and Colombia is investigating learners' adaptive metacognitive and meta-motivational capacities and how these shape their effort, persistence, and engagement with language learning opportunities, and their accuracy of performance in instructional settings. This work is being consolidated in an edited collection on engagement in the L2 classroom that addresses conceptual, methodological, and applied issues related to engagement in the L2 classroom. The aim of this volume is to serve

as a benchmark for future empirical work on engagement in the L2 classroom (Hiver, Mercer, & Al-Hoorie, forthcoming).

Teachers, too, play a central role in the dynamics of the classroom and in learners' engagement within the instructional setting. Hiver has investigated how teachers deliberately create the necessary conditions for learners' engagement and learning through their classroom practices (Han & Hiver, 2018), contributing to the growing body of evidence that teachers are a key prerequisite for students' classroom engagement and investment of effort. For example, in compulsory, high-stakes language learning settings, Hiver has shown that both students' perceptions of their instructors and teachers' high-leverage classroom practices (e.g., promoting collaboration, mastery over performance, authentic emotional support) lead to deeper student engagement, increased classroom participation and responsiveness, greater prosocial and communicative behavior, and ultimate language achievement.

The interface between teacher thought and action and their link to language learners' development in instructed settings is also a mainstay of Phil Hiver's program of research. In a series of multi-method studies, Hiver and colleagues have set out to examine situated teacher cognition and how this relates to ambitious teaching practices with groups of experienced and novice L2 teachers. Initial results indicate that conscious and intentional thought and action are hallmarks of exemplary L2 instruction and may be seen as the primary drivers of teacher development. This project suggests that when teachers develop, draw on, and maintain explicit awareness of their instructional moves, they are able to enhance their own students' development. A larger project examining how teachers build classroom environments that are engaging, demanding, and supportive of learners' language development (see e.g., Hiver & Dörnyei, 2017) investigates a new construct—language teacher immunity—that emerges in the complex conditions of many L2 instructional environments. Related projects that are ongoing include retheorizing the work and lives of language teachers from a perspective that is informed by current evidence in mainstream teacher education research and the learning sciences.

Research methods

Research methods figure prominently in our research program. Shaofeng Li has conducted several meta-analyses exemplifying the application of rigorous meta-analytic procedures in the synthesis of SLA research. He has also demonstrated ways in which meta-analysis and narrative review can be integrated in a hybrid synthesis. In a hybrid synthesis, meta-analysis is used to aggregate the results and narrative review is used for quantitative data that are not meta-analyzable, either because there are few effect sizes reported or there are no statistical procedures for effect size (such as the results of multiple regression), and for results of qualitative studies reported by primary researchers as themes and patterns. A hybrid synthesis makes it possible to base a research synthesis on the totality of the research and reach firmer conclusions than a meta-analysis or narrative review alone. Li has also published a methodological synthesis evaluating the internal, external, and construct validity of the methods of the experimental research on CF. Finally, Li also contributes to the methodological advancement of SLA research by publishing introductory guides on how to carry out a research synthesis and traditional literature review (Li & Wang, 2018).

Phil Hiver has worked to explore analytical tools and methods for complexity/dynamic systems theory (CDST) research in applied linguistics (e.g., Hiver & Al-Hoorie, 2016), particularly in the area of L2 development. These initiatives are also part of a broader pivot in applied linguistics research methods to acknowledge interconnectedness and change, situate learner development firmly in context, and show how the CDST meta-theory is a natural precursor to a transdisciplinary perspective of the field. In a book on methods for doing CDST research—the first in the field—methods of data elicitation and analysis are introduced and exemplified. Another forthcoming special issue on transdisciplinary research methods in applied linguistics features methods (both quantitative and qualitative) and designs from both individual and group-based perspectives and used for both confirmatory and exploratory objectives. These provide the means to identify underlying structures (including the use of latent variable analysis), account for variation at different levels, discern temporal and spatial

processes and events, and study networked phenomena nested in contexts. Hiver's other ongoing projects are also part of innovative work advocating for open science practices, including, for example, pre-registration, which aims to demarcate exploratory versus confirmatory research and minimize researcher degrees of freedom, as important components of cumulatively refining empirical evidence in the field.

Endnote

[1] Due to space limits, we are unable to provide all the bibliographic information of the projects cited in the article. For more detailed information on our publications, please contact the corresponding author.

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