

Individual Differences in Language Education -- Why a new journal now?

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Welcome

We are pleased to announce the launch of *Individual Differences in Language Education: An International Journal* (hereafter referred to as *IDLE*). This multidisciplinary journal aims to advance research and understanding of the role of individual differences (IDs) in language learning and teaching and to serve as a platform for researchers, educators, and practitioners to share their insights and perspectives on the complex and dynamic interplay between IDs, language learning, and language teaching.

The journal's scope encompasses a broad range of topics including cognitive, affective, and social factors that influence language learning, IDs in language aptitude and proficiency, language learning strategies, metacognition, self-regulation, and the implications of individual differences for language teaching and assessment. We also welcome contributions exploring the role of emerging technologies in language learning and teaching, such as AI-empowered personalized tutoring systems and other personal learning environments.

Through its rigorous peer-review process, the journal seeks to promote high-quality research that informs theory and practice in language education. As an open-access journal, two regular issues per year will be published. The journal employs a two-stage review procedure: an internal review by the editor(s) and an external double-blind peer review by experts in the field.

Rationale for the New Journal on IDs

The rationale for this journal emerges from a growing recognition of the diverse ways individuals acquire and use additional languages. Research on IDs in second language acquisition (SLA) has a rich history dating back to the 1970s and 1980s. However, during those early years, the focus was primarily on identifying commonalities among learners, often neglecting the unique differences that shape each individual's journey. As Rod Ellis notes in his Foreword to the recently published *Routledge Handbook of Second Language Acquisition and Individual Differences* (Li, Hiver, & Papi, 2022), early studies on IDs were “largely separate” from mainstream SLA research, which emphasized universal aspects of L2 acquisition while treating IDs as a peripheral concern.

By the 1980s, the landscape of SLA began to shift as researchers acknowledged the importance of understanding both the “variant and invariant aspects of L2 acquisition” (p. xxiv). Since then, the number of volumes dedicated to reviewing the research on IDs in L2 acquisition has surged (e.g., see Dörnyei, 2005, 2009; Ellis, 2004; Robinson, 2002; Skehan, 1989; Sparks, 2022). Numerous scholarly journals have published research investigations examining the relationship among IDs, L2 achievement, and L2 aptitude. There is a growing consensus in the field regarding the key IDs influencing L2 acquisition (see Ellis, 2022, pp. xxiv-xxv). For instance, contributors to the new *Routledge Handbook* have reviewed research on cognitive, conative, affective, and sociocultural factors, as well as IDs related to specific aspects of L2 learning including pronunciation, vocabulary, and grammar.

Despite these advancements, a comprehensive theory of IDs in L2 research is still lacking. Such a theory would elucidate the inter-relationships among ID variables, how they influence the L2 learning processes, and their collective impact on L2 achievement. It is evident that many ID variables, whether individually or in combination, can help explain how learners acquire a second language. Larsen-Freeman (1997) noted “striking similarities” between the science of chaos/complexity and SLA, arguing that the intricacies of learning a second language cannot be fully understood by merely identifying additional ID variables. She urged researchers to approach SLA as a *both/and* challenge rather than an *either/or* dilemma.

Jim Manzi (2010) explained that studying human behavior is inherently complex due to *causal density*, which refers to the intricate web of causal interactions within a system. In the realm of learning a second language, the myriad factors influencing L2 learners' outcomes are vast and complex with each ID variable having a potential to impact results. For instance, Manzi compared this complexity to studying planetary orbits, where gravity is the sole significant force, resulting in low causal density. In medicine, while there are more variables to consider, many issues remain manageable, leading to moderate causal density. However, in human behavior, the multitude of causes—and their intricate interactions—results in high causal density. Manzi highlighted that we cannot assume a literacy program found to be effective in one

school will yield the same results in other schools because factors such as settings (urban vs. suburban), income diversity, prior test scores, teacher qualifications, and adherence to program protocols all contribute to this complexity.

Researchers will face challenging decisions regarding which ID variables provide meaningful evidence for explaining variability in L2 acquisition and which do not -- and are unlikely to do so. In a recent volume on language aptitude (Wen et al., 2019), DeKeyser (2019) suggested viewing language aptitude as part of a “very large but structured puzzle”, emphasizing the need for theoretical integration. Similarly, as journal editors of IDLE, we argue that research involving putative ID variables for L2 learning should also be seen as part of this puzzle (Sparks & Wen, 2023). However, we caution that some ID variables will ultimately be found to explain more of the variance in L2 achievement than others, while some may explain less variance than anticipated. Additionally, certain ID variables may contribute little or no variance to L2 outcomes. As time goes by, those that do not fit into the L2 acquisition puzzle will need to be excluded as viable explanations. To begin addressing this issue, Table 1 presents a tentative and non-exhaustive summary of correlational coefficients between various IDs and L2 learning outcomes based on current literature (Plonsky, 2022 as cited in Jelmini, 2022).

Table 1

Correlational Coefficients between IDs and L2 Learning Outcomes

Serial Number	Individual Differences (IDs)	Correlational Coefficients
1	Motivation	0.55
2	Language Aptitude	0.49
3	Willingness to Communicate	0.48
4	Self-drive	0.48
5	Nervousness	-0.36
6	Desire	0.30
7	Language Experience	0.27
8	Working Memory	0.26
9	Openness	0.23

For one of us (Sparks), whose primary expertise lies in L1 reading and learning disabilities (LD), DeKeyser’s suggestion about the need for theoretical integration evokes the journey of piecing together the puzzle of how children learn to read. Since the 1970s, significant strides have been made in understanding the fundamental psychological processes that underpin reading. By the end of the 1990s, so much progress had been made that a leading reading researcher termed this progress the “Grand Synthesis” and described what it meant for the reading field (Stanovich 1998). The notion of a Grand Synthesis embodies how cooperation among diverse groups of reading researchers in psychology, cognitive science, special education, and neurocognitive fields, culminated in a unified explanation of the reading process grounded in robust evidence.

Over time, the “science of reading” has been shaped by an evolving evidence base generated by researchers working on various aspects of the reading process (e.g., see Hoover & Tunmer, 2022; Kilpatrick, 2015; Petscher, et al. 2020; Rayner, et al. 2001; Seidenberg, 2017). Since then, this unified science of reading has been extended across language and writing systems that explain learning to read and write languages beyond English, including both alphabetic and logographic (morpho-syllabic) orthographies (see Joshi & Aaron, 2014). The findings from disparate groups of researchers working on different pieces of the reading puzzle provided converging evidence which has shown that there are many factors that influence the development of word reading and reading comprehension (Grabe & Yamashita, 2022; Verhoeven & Perfetti, 2017).

In contrast to reading science, the learning disabilities (LD) field serves as a stark reminder of the consequences of failing the task of basic theoretical integration. Even 60 years after the LD concept was introduced, the LD field has never assembled a coherent puzzle that answered the two most fundamental questions about the LD concept: 1) What is an LD and how is it defined, and 2) How is LD diagnosed? As a result, the LD field remains fragmented with researchers, educators, parents, and others holding radically different views (puzzle pieces) that cannot be assembled into a cohesive whole.

One major problem was that the LD field and the LD concept itself originated from advocacy rather than scientific inquiry. Early on, researchers questioned the validity of the concept, arguing that an LD could not be differentiated from low academic achievement (see Algozzine & Ysseldyke, 1983). By the mid-1980s, the definition for LD was found to be so broad that the editor of the flagship journal in the field called LD a “sociologic sponge” intended to include students with an expansive range of problems whose only common characteristic was that they did not “fit” into regular education (Senf, 1987).

The field also promulgated the use of ability (IQ)-achievement discrepancy as the criterion to diagnose students as LD before any evidence had been generated that showed the validity or efficacy of the procedure. Subsequently, the IQ-achievement criterion was soon falsified by researchers because it did not distinguish between the reading-related cognitive skills of poor readers with and without discrepancies (see Siegel, 1989; Stanovich, 1991; Stuebing et al., 2002). Repeated attempts to reach a consensus on criteria for diagnosing LDs have been contentious and ultimately futile (Dombrowski et al., 2004; Fletcher & Miciak, 2024; Mather & Gregg, 2006) Without an empirically-based definition and valid diagnostic criteria for LDs, the field became a “catch-all” for all kinds of learning problems and has routinely been susceptible to fads and charlatans, leading researchers to call LD a “political” diagnosis (Kavale & Forness, 1998) and wondering whether the field would remain a pseudoscientific one (Stanovich, 2005).

Today, the diagnosis of LD remains an “anything goes” process, subject to litigation by disability advocates because the field has failed to answer the two most fundamental questions: What is an LD and how is LD diagnosed?

Siloing vs. Cooperation/Collaboration

The manner in which the Grand Synthesis for reading developed illustrates the need for cooperation among researchers with competing hypotheses and different research agendas working together to solve a common problem. This example also raises the question of whether there is coordination among researchers in SLA/L2 fields that could result in a Grand Synthesis explaining how individuals learn an L2. One limitation of the research cited in previous texts dating to the 1960s (Wong-Fillmore 1979; Skehan 1989, 1991, 1998, 2019; Robinson, 2002, 2005, 2020; Dörnyei 2005, 2009, 2020; Granena 2016; Wen et al., 2019) is that researcher groups studying IDs in language learning seem to work in “silos,” that is, within their own system or subsystem, and do not always engage in reciprocal interaction with others in related areas. In some cases, researchers studying an ID variable may not be familiar with the research on other ID variables for L2 acquisition. For example, DeKeyser (2019) lamented that L2 audiences comprised of teachers and teacher trainees who were involved in university L2 teacher education programs did not know what language aptitude, a well-researched ID variable, meant and had never heard of language aptitude tests. This situation is surely problematic when those who teach L2s in the classroom are unaware of a longstanding ID variable in their own field.

Another example of “silos” comes from the study of students’ learning styles and use of language learning strategies. For several years, there has been much interest in the learning styles concept for teaching L2s. However, there is no evidence from L2 (or L1) research showing that styles are important for L2 learning or that matching learners’ styles with teaching methods improves performance (Nancekivell, Shah, & Gelman, 2020; Pashler et al., 2008; Sparks, 2006). Likewise over 30 years ago, Skehan (1991) noted the “worrying possibility” that good language learners are those who can use learning strategies, while poor learners may not” (p. 288). More recently, Ellis (2022) writes that the status of learning strategies as an important ID for L2 is, at best, “uncertain” and cites the “problematic nature” of the construct (p. xxv). Yet, both learning styles and learning strategies remain as prominent ID variables in SLA up to this day (Griffiths, 2022).

Achieving theoretical integration-what can be termed a Grand Synthesis-for explaining L2 acquisition will require researchers to make challenging choices between ID variables that produce strong evidence for significant variance in L2 outcomes and those variables that do not. Given these challenges, one may wonder why some researchers and educators are unaware of research in IDs related to L2 acquisition and/or reluctant to discard theories or practices that have not generated supportive evidence. We believe the reasons behind these are complex and multifaceted. Below, we outline some potential explanations.

The Seven ‘Deadly Sins’ of IDs Research in SLA

In a recent paper, Dąbrowska (2016) identified cognitive linguistics’ “seven deadly sins,” or serious problems in the field. Although her paper was not written specifically for an L2 audience, several of the sins are related to our earlier points about “siloeing” in L2 research and the difficulty in theoretical integration in SLA. For example, Dąbrowska cites an “excessive reliance on introspection,” or use of one’s own intuitions as the primary source for theories about language. Another sin is “not enough serious hypothesis testing,” which she describes as the lack of deriving testable predictions from hypotheses, carrying out the tests, and refining hypotheses when appropriate. A third sin is “not treating the cognitive commitment seriously,” or not supporting one’s analyses by appealing to what is known about human cognitive processing. She explains that while linguists indicate that language relies on general cognitive processes, many seem uninterested in what other cognitive scientists have to say about human cognition. Dąbrowska contends that although the discipline of cognitive linguistics has made great strides in studying language, these problems must be addressed if their approach is to produce fruitful results.

The “sin” highlighted by Dąbrowska that attracted our attention is the pervasive issue of “ignoring individual differences” in language. She noted that most cognitive linguists “do not look for individual differences and tend to sweep them under the carpet when they find them, with the result that they are usually ignored” (p. 485). This practice is problematic for several reasons. First, IDs are pervasive in language. Second, the existence of differences between speakers is predicted by a usage-based theory, and thus offers support for it. Third, the study of IDs offers a unique window into the cognitive and experiential underpinnings of language. While Dąbrowska cited several reasons for the practice of ignoring IDs, it remains puzzling that they would be overlooked in language development and attainment.

How could the problem of “siloeing” and the commission of the “sins” cited by Dąbrowska be addressed by SLA/L2 researchers? Here again, the process by which the “Grand Synthesis” for reading was achieved comes to mind. In the early 90s, reading researchers and reading educators began to diverge on the methods by which they investigated how children learn to read and the problems that some children experience when learning to read. Research scientists were intent on studying the reading process through empirically-based, scientific investigations, while reading educators were using more qualitative methodologies and case studies.

At that time, professional organizations in education, special education, and psychology, including the National Reading Conference, were not much interested in the science of reading, particularly in IDs and genetics, so an organization devoted to reading research, the Society for the Scientific Study of Reading, was formed and became the primary professional society devoted exclusively to the study of reading (spelling, writing). The organization attracted a large international membership of researchers in diverse fields ranging from educational and cognitive psychology,

special education, medicine and genetics, linguistics, speech/language pathology, and neuroscience who studied reading from both quantitative and qualitative perspectives. The diversity of the membership made the organization unique and appealed to many researchers, whose collaborations led to the Grand Synthesis.

Towards a Grand Theory of SLA

How could the L2/SLA fields develop their own Grand Synthesis for L2 acquisition? Scholars in many fields have championed the need for, and compatibility of, quantitative and qualitative approaches in research, arguing that the strengths and weaknesses of the approaches establish a complementary relationship, not an incompatible one (Hiver, Al-Hoorie, & Larsen-Freeman 2022). We think that the ultimate goal for the study of IDs in SLA/L2 will require joint, collaborative efforts by scholars from different theoretical backgrounds and those who have expertise from different disciplines such as applied linguistics, education, psychology, neuroscience, and genetics, to name but a few. In *The Republic of Science*, Polanyi (1962) noted, the integrity of science “does not depend on the integrity of individual scientists but on a competitive system that separates the best from the worst independent of any single person’s will. By insisting that no one’s authority is final...far-flung and dispersed communities of scientists are able to do better for science than anyone can do alone” [cited in Wildavsky 1991: 36)].

In addition to the joint efforts of scholars working from multiple perspectives and diverse contexts, Stanovich’s remarks for the reading field several years prior to the Grand Synthesis are timely: “Our literature is full of unreplicable findings, single-shot studies, and unexplained anomalies. To pay equal attention to all of this and to try to account for all of it in our reading models when a large chunk of it is noise is a “metatheoretical mistake. Instead, parsimony should be the order of the day” (1989, p. 366). Like reading or any other field of research, the SLA/L2/language education fields consist of the same issues cited by Stanovich as well as unverified theories, hypotheses based on ideology, the musings of individuals, and other unhelpful information (see Dąbrowska, 2016). In our view, SLA/L2 researchers should ask important questions (Neisser, 1978; also see Bunting, 2023 for a similar argument regarding language aptitude), even if that means making difficult decisions about the viability of some proposed theories for L2 acquisition. Ultimately, in a cognitive scientific field like SLA/L2 (Long & Doughty, 2003), “nothing is as practical as a good theory” (cf. Lewin, 1945, p. 129).

Article Types

Therefore, we hope that the ideas proposed in this journal will serve as catalysts for boosting future IDs research in SLA/L2 and provide the groundwork for theoretical integration in the years to come. To achieve this aim, the journal features a variety of article types, including but not limited to:

- **Empirical Research:** Quantitative, qualitative, and mixed-method studies that provide new data and insights into the role of IDs in language learning and teaching.

- **Reviews:** Systematic literature reviews, umbrella reviews, scoping reviews, and narrative reviews that synthesize existing research and highlight gaps in the literature.
- **Meta-Analyses:** Articles that statistically aggregate the results of multiple studies to provide a comprehensive understanding of specific ID variables and their impact on L2 learning.
- **Book Reviews:** Critiques of recent publications relevant to IDs in language education, solicited by the editors.
- **Test Reviews:** Evaluations of new and existing assessments related to IDs and language learning, focusing on their validity and reliability.
- **Interviews:** Conversations with leading scholars and practitioners in the field, offering insights into current trends and future directions in IDs research, solicited by the editors.
- **A Country in Focus:** Articles that showcase research and practices related to IDs in language education from specific countries or regions, recommended by the editors.
- **Research Issues:** Discussions of methodological, theoretical, and practical challenges in researching IDs in SLA/L2, aimed at advancing the field.
- **Special Issues:** Themed collections of articles on specific topics related to IDs in language education, curated by guest editors.
- **Position or Target Articles:** Articles featured in special issues that present a specific stance or engage in particular debates within the field of IDs in language education, fostering scholarly discussion and critical analysis.

By providing a platform for these diverse types of contributions, we aim to promote a collaborative and integrative approach to understanding the complex and dynamic role of IDs in language learning and teaching.

Brief Overview of the Inaugural Issue

This inaugural issue of *Individual Differences in Language Education: An International Journal* begins with an editorial by the three Co-Editors in Chief -- Richard Sparks, Zhisheng (Edward) Wen, and Hassan Mohebbi – who articulate the rationale behind the launch of the journal and its mission to advance research on individual differences (IDs) in language education broadly, with a particular focus on SLA/L2 learning.

Following the editorial, the issue features a theoretical position paper by Co-Editor-in-Chief Richard Sparks and his co-author Phillip Dale addresses the often-overlooked role of native language (L1) in second language acquisition (SLA) research. The authors critique the neglect of L1 considerations in SLA studies and advocate for a more integrated approach that acknowledges the foundational impact of L1 on L2 learning processes.

The issue also includes four insightful book reviews on recent volumes dedicated to IDs in language education. Both book reviews critically evaluate the contributions of these works to the field, offering readers a deeper understanding of current trends and future directions in IDs research.

Together, these contributions set the stage for a journal that aims to foster collaboration, theoretical integration, and innovative research in the dynamic and multifaceted field of IDs in language education. As journal editors, we eagerly anticipate exciting manuscripts from authors and readers who share our passion for IDs in language education and our collective goal of advancing the field.

We warmly invite researchers, educators, and practitioners from around the globe to submit their work to *Individual Differences in Language Education: An International Journal*. Whether you have groundbreaking empirical research, insightful reviews, or thought-provoking theoretical papers, we welcome your contributions. Join us in exploring the intricate interplay of IDs in language learning and teaching, and help us push the boundaries of knowledge in this vital area of education. Together, we can build a vibrant community dedicated to enhancing our understanding and practice of language education.

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