Reading Research Quarterly

INTERNATIONAL LITERACY ASSOCIATION

ARTICLE

SPECIAL ISSUE Science of Reading and Equity

Toward a Science of Strengths-Based Approaches to Reading for English Learners in K-12 Schools

Lisa B. Hsin[1] | Emily Phillips Galloway[2]

[1]The University of Alabama, Tuscaloosa, Alabama, USA | [2]Vanderbilt University, Nashville, Tennessee, USA

Correspondence: Lisa B. Hsin (lisa.b.hsin@ua.edu)

Received: 22 February 2025 | **Revised:** 4 December 2025 | **Accepted:** 12 December 2025

ABSTRACT

The popular Science of Reading (SoR) movement has galvanized attention to early reading instruction with an emphasis on foundational reading skills, yet this movement is largely grounded in research focused on monolingual emergent readers. In this article, we aim to advance the science of strengths-based reading instruction for the segment of the population of multilingual learners who stand the most to gain from enhanced learning opportunities: English learners in U.S. schools. A targeted, interdisciplinary literature review traverses three domains—across linguistic, metalinguistic, and sociocognitive skills—in which the experiences of becoming multilingual can support reading development, particularly in the upper elementary grades and beyond, when increasingly sophisticated literacy practices rely on deep reading comprehension. The synthesized studies illustrate how multilingual experiences can buoy deep reading comprehension by giving rise to cross-linguistic transfer, metalinguistic awareness, social perspective taking, and other supportive mechanisms. To encourage continued advances in research and practice, we situate the lessons of the review among two complementary models of reading and discuss the importance of refining research within the science of reading to include a wider range of participants and a clearer focus on falsifiable hypotheses. Ultimately, we call for a SoR movement that recognizes the different strengths students bring to reading and that champions instruction that builds on those strengths, for all students.

1 | Introduction

A vast body of research documents the many capacities, practices, and knowledge bases that support masterful reading, and a complementary body of research highlights effective methods for teaching it (see Petscher et al. 2020). These bodies of work—which one might call *the science of reading* and *the science of teaching reading*, respectively—pursue varied goals: understand foundational mechanisms, explore how curricular materials influence student performance, guide instructional practice, and so forth. In contrast, the *Science of Reading (SoR) movement*—capitalized to distinguish its reified status—pursues a singular, uniquely practical goal: ensuring *all children* become readers (Hattan and Kendeou 2024). Yet, in doing so, it has become at once highly politicized and problematically narrow (not unlike the rampant misapplications of the lessons of the 2000 National Reading Panel that take its "Big 5" pillars of reading instruction to be an exhaustive, equivalently valued set of constructs). The nuance and complexity of its namesake research base have been distilled into brief lines in state legislation that prioritize 'foundational reading skills' (Neuman et al. 2023), most often phonics instruction (Tierney and Pearson 2024).

But if the goal is to serve *all* children, then a narrow focus on phonics and other word-recognition skills is likely inadequate. The latest National Assessment of Educational Progress (NAEP) Reading results (NCES 2025) make this plain: only 31% of fourth graders and 30% of eighth graders demonstrated proficiency on the 2024 administration of NAEP Reading, significantly lower percentages than before the COVID-19 pandemic. Students who fall into the category below *Proficient* (called *Basic*) may have some difficulties with word recognition, but they are also unprepared to deeply comprehend texts they have decoded (NCES 2025). These declining NAEP Reading results suggest

the need for a greater emphasis on *meaning-related* skills and knowledge, including strategic reader behaviors, motivation and affect, knowledge about language, and knowledge about the world (Smith and Thelen 2003).

Arguably, such data argue for broadening the SoR movement so that it targets the range of strategic and automated capacities and practices that skilled readers apply when they encounter authentic, complex texts—what some have labeled *deep reading comprehension*, as in LaRusso et al. (2016), or *advanced literacies*, as in Lesaux et al. (2016). As a field, researchers and educators should be ever more focused on equipping students with the sets of strategic and automated processes (e.g., Afflerbach et al. 2008; O'Brien and Cook 2015) needed for participation in a classroom's literate social practices. That is, they need to be able to confidently read and synthesize multiple texts, form and defend evidence-based interpretations, evaluate competing perspectives, and apply what they have learned to new contexts and problems (e.g., Pearson et al. 2020). These are practices critical to schooling and to broader civic, social, and workforce participation (Lesaux et al. 2016) and expected of students starting in the upper elementary grades (as in the now-spurned but still widely influential Common Core State Standards in ELA/Literacy; NGAC and CCSSO 2010).

1.1 | The Underappreciated Role of Language

This kind of deep reading comprehension relies in no small part on language abilities—not read, but spoken (or signed; see Cervetti et al. 2020; see also, e.g., Scott 2022, for related discussion about deaf and hard of hearing students). Although most U.S. children speak English as a first language, a large and growing share (21.7%) grow up speaking another language at home (U.S. Census Bureau 2023) or using dialects that differ systematically from mainstream American English. The foci of the SoR movement are generally applicable to these multilingual populations (see The Reading League and National Committee for Effective Literacy 2023; Goldenberg 2020). However, conversations have paid relatively little attention to how administratively designated English learners in particular should be served under an SoR framework. And while virtually all young children in the U.S. are in a sense learning English, it is the administratively designated group of *English learners*—so designated by their school districts under state-defined criteria that respond to federal law—who are entitled to specialized services and supports to ensure their meaningful access to standards-aligned curriculum while they are still developing English proficiency. That right must be upheld under any instructional regime (see, e.g., Callahan and Shifrer 2016). So how does English learners' experience with language—with their languages—shape their reading development? The SoR movement has yet to grapple with this question directly (see also Schwartz 2025).

Because the SoR movement has largely focused on bringing all students into equivalent levels of foundational reading skill mastery (Tierney and Pearson 2021), it has largely overlooked the aptitudes and skills that these emergent multilingual students[1] bring to language-based tasks, like reading. They are not "two [or more] monolinguals in one person" (Grosjean 1989); their multilingual experiences shape them cognitively, socially, academically, and linguistically. Given certain instructional conditions, these experiences can yield instructionally relevant strengths germane to reading development (see also Ascenzi-Moreno 2024; Gabriel and López 2024).

To date, research in multilingualism—from cognitive psychology, psycholinguistics, and social cognition—has provided a fuller picture of the reading-relevant linguistic, metalinguistic, and sociocognitive strengths that English learners may bring to the classroom. Still, these insights have been infrequently used to inform the science of teaching reading. Instead, the SoR remains largely informed by research focused on understanding either (a) the impact of instructional models that vary the amount and goal of English exposure versus home language exposure, such as two-way immersion, transitional bilingual, or sheltered instruction models (Marian et al. 2013), or (b) specific instructional practices (usually within English-medium, general education classrooms) on English learners' acquisition of new vocabulary, grammatical skill, reading comprehension, and so forth (e.g., Lesaux et al. 2010). Studies of both of these types on administratively designated English learners' reading performances often highlight differences with their English-proficient (and typically monolingual) peers.[2] In some sense, this is to be expected since, by definition, English learners are still working toward grade-level mastery of the written and spoken English language used in instruction and assessment (Hopkins et al. 2013; Saunders and Marcelletti 2013). While critically important, this research leaves much unexplained about how language skills interface with reading performances over time.

Take, for example, findings related to youth classified by their school district as *former English learners*. These large-scale analyses of the broader population of multilingual learners—of whom a majority are reclassified English learners—have revealed, for example, that between 2003 and 2015 multilingual students' reading performance on the NAEP Reading improved two to three times as much as their monolingual peers' scores during that same period (Kieffer and Thompson 2018; see also articles that highlight growth in specific aspects of language such as Phillips Galloway and Uccelli 2019; Kieffer and Lesaux 2012). That study operationalized the multilingual learner group using an item that establishes whether a language other than English is spoken "most or all of the time" in the student's home, but the authors estimated that among that population, only about 5% of the included students had at no point been classified as English learners (i.e., were not *ever-ELs*; see also Kieffer and Thompson 2018; Le et al. 2024). Supposing that estimation is roughly accurate, findings like these argue for the high payoff of bringing students to a level of English proficiency worthy of reclassification as early as possible. And looking beyond those national gains, more local research has found that students who have been reclassified as English proficient in US schools often have better outcomes than their monolingual peers (e.g., Carlson and Knowles 2016; Johnson 2019). Multiple factors are likely at play. Kieffer and Thompson (2018) noted, for example, that an increase in dual language immersion programs and increased focus on the certification requirements for teachers of English learners may have contributed to these growth rates. But it is also plausible that part of this success comes from educators—whether intentionally or not—capitalizing on multilingual

students' strengths, even if these have rarely been made visible in existing SoR discussions (see also Kittle et al. 2024).

1.2 | A Wide Lens on the Affordances of Multilingualism

To translate the science of reading—not the movement, but the research—into classroom practices that appropriately meet the reading needs of English learners, we must broaden our evidence base to include insights from fields that study language learning under a wide variety of conditions, from classroom-based observational research to controlled laboratory-based experiments. By doing so, we can better understand how students in the process of becoming multilingual may bring reading-relevant strengths rooted in their experiences acquiring a language *other than* the language of instruction. And because reading and language are so deeply intertwined (Oakhill et al. 2014; Phillips Galloway and Uccelli 2019), these strengths can be built upon in English-medium classrooms even when students have limited literacy skills in their home language—especially important if students remain classified as English learners into and beyond the upper elementary grades.

Doing so serves the goal of helping all students develop the rich and complex suite of cognitive, linguistic, and other skills they need for reading—that is, the skills that will give them opportunities to grow and thrive as literate learners in their individual ways, reflective of their individual circumstances and capabilities. And to be effective, instruction toward these ends will often need to be differentiated since even within groups, children's skills can vary widely, and no specific set of developmental or instructional experiences can definitively predict outcomes. Furthermore, even if those reading-relevant strengths are present in certain students, it is not guaranteed that instruction that mobilizes them will lead to better reading outcomes. Indeed, although strengths-based instruction that aims to build on skills like metalinguistic awareness could appear to run the risk of downplaying the importance of more traditional academic outcomes, they are not in principle incompatible.[3] The reading instruction that works best for English learners and other multilingual learners is likely to be the instruction that is at once academically *rigorous*, holding all students to high expectations of cognitively demanding academic activities and outcomes, and personally *relevant*, building carefully on their experiences and capabilities in ways that ensure their learning is meaningful to them. We thus seek to present the range of cognition-focused, reading-relevant affordances of emergent multilingualism as a way of expanding what the field understands as having the potential to 'work' in instruction, and not necessarily just for English learners.

Peering into education-adjacent research fields, which include but are not limited to cognitive psychology, psycholinguistics, and social cognition, we can see three broad areas of strength, areas this review focuses on. The first is linguistic: acquiring one language and then another, especially during childhood, can lead to different levels and types of transfer of linguistic knowledge (in a subpersonal way, that is, without the speaker reflecting on interlinguistic similarities; see, e.g., Cummins 1979; Melby-Lervåg and Lervåg 2011). The second is metalinguistic: acquiring and maintaining two language systems can draw speakers' conscious attention to various language characteristics, including higher-level ones like the arbitrariness of individual word forms relative to their referents and lower-level ones like how subject-verb agreement is marked in present versus past tense (see, e.g., Durgunoğlu et al. 2002; Zaretsky and Schwartz 2016; Zhang et al. 2017). The third is sociocognitive: for communication purposes, it behooves speakers of multiple languages to be sensitive to what language(s) others speak and to the different perspectives they might bring (e.g., Genesee et al. 1996). These capacities are rarely captured in large-scale literacy assessments, but they may be quietly at work in the success trajectories of many former English learners, and more systematic attention to their role might enable the design of more impactful instruction.

1.2.1 | A Caution About the State of Research

The careful reader may have noticed that in our initial presentation of the three categories of strengths we will discuss in our review, we used the modal "can" repeatedly: acquiring one language and then another *can* lead to transfer, managing two linguistic systems *can* enhance metalinguistic awareness, and so on. This language is intended to convey that what we discuss in this commentary are best understood as *capacities* (e.g., Cartwright 1999), potential but not inevitable developmental phenomena that emerge under the right circumstances.

We are focused on capacities for three reasons. First, readers vary across time, texts, tasks, and contexts (see Francis et al. 2018; Snow 2002). This fact means that drawing universal prescriptions from any one study (or even body of research) risks misapplication in schools. This is especially true of studies from fields outside of education, which often rely on small sample sizes and may not account for the social and cultural contexts in which learning occurs. Moreover, English learners are a remarkably heterogeneous group, speaking hundreds of languages learned across an array of settings, complicating cross-study comparison further; for many language groups, research is still quite limited. Most studies of English reading in multilingual populations examine speakers of Spanish or Mandarin Chinese.

Second, the research synthesized here reflects an amalgamation of rigorous empirical research and intuitively appealing received wisdom, and various methods in between (e.g., mixed-methods studies, qualitative research). Although some of the studies meet What Works Clearinghouse standards "without reservations" (see, e.g., Baker et al. 2014), others have not been reviewed and do not appear to meet those standards. That is, we do not categorically rule out studies just because they are not randomized controlled trials (RCTs) or the most rigorous quasi-experiments (cf. Petscher et al. 2020, distinguishing levels of evidence available for reading instructional approaches). Instead, we describe what kinds of studies are available and consider in that light what more could be done to better understand the relevant developmental phenomena. Basic cognitive psychological research on English learners as such is especially lacking, an absence that should be rectified across fields considering the policy relevance of these students' success. And while this may seem a contentious claim considering how variably English learner status can

be applied across states, the language acquisition contexts of English learners and how they affect those students' cognitive development seem to us to have a place in this literature.

Third, research on multilingual learners has historically been shaped by what Taboada Barber calls a 'zero-sum mindset,' operating from the perspective that multilingualism 'interferes' with learning (Bialystok 2007; Taboada Barber et al. 2022). This calls for a disproportionate focus on recent and emerging research that employs a range of designs to illuminate multilingualism's potential. And indeed, although we focus on English learners in this discussion, it is not to be expected that every English learner, or every multilingual learner, will display the behaviors we review here; it is also not the case that no monolingual learner has experiences that would lead to the development of similar strengths. Yet these limitations do not diminish the importance of exploring the potential for English learners' linguistic, metalinguistic, and sociocognitive capacities to contribute meaningfully to their reading skill development. On the contrary, their existence underscores the need for research that systematically documents these strengths, tests their instructional relevance, and identifies the conditions under which they can most effectively support reading development.

1.3 | Seeking to Support English Learner Strengths With the Science of Reading, Broadly Construed

In the sections that follow, we review literature on the linguistic, metalinguistic, and sociocognitive strengths that can support English learners' reading development and discuss the relevance of this literature for the continued investigative work of the science of reading, the SoR movement, and SoR-aligned instruction. The literature reviewed is not meant to represent the state of knowledge comprehensively but instead to surface some particularly illuminating findings related to this subject across education-adjacent fields (e.g., cognitive psychology, linguistics/psycholinguistics, social cognition). The main thesis of the article is that efficacious reading instruction for English learners, while inclusive of the features of efficacious reading instruction for all learners, may also differ in some regards from the canonical understanding of best practices in reading instruction for monolingual learners because the strengths afforded by (emergent) multilingualism can also differ. And those strengths are found in more than just the sociocultural richness that they can add to a classroom (although they certainly do that; Esteban-Guitart and Moll 2014; Moll et al. 2013). We wish to instead draw attention to their related cognitive psychological strengths that have their own contributions to make to students' reading attainment.

Drawing thus on our backgrounds in language and literacy research and in K–12 teaching, we focus on what researchers and educators alike must understand about the reading-relevant skills of English learners, as a group of students progressing toward fluent multilingualism. We focus, in particular, on making recommendations for English-medium classrooms (the dominant model in the U.S. educational landscape). Indeed, while studies have demonstrated that dual-language models are often benign or beneficial for both English learners and their monolingual peers (e.g., Steele et al. 2017; Valentino and Reardon 2015), various factors such as staffing shortages and state policies have kept those models confined to select locations and inaccessible to most English learners (Porter et al. 2023). Furthermore, considering our emphasis on deep reading comprehension as an instructional target and the great need to address English learners who do not achieve reclassification in the typical 4–6 years (Thompson 2015), we frequently highlight skills and capacities that are germane to later-learned literacy practices that are underemphasized in the SoR movement.

2 | Research Relevant to English Learners' Deep Reading Comprehension Learning

The areas of focus in this commentary—linguistic, metalinguistic, and sociocognitive skills—are all connected in various ways to foundational literacy skills (see, e.g., Gabriel and López 2024). Other recent publications have emphasized the importance of teaching foundational skills (e.g., Duke and Cartwright 2021; Gabriel and López 2024; Silverman et al. 2021), with virtually no dissent among reading scientists. And although too many reading educators still hew to unproven or deleterious instructional practices (Kurtz et al. 2020), we take it that there is little debate among researchers about the importance of teaching (English) word reading skills to all students learning to read in English. We thus have elected to focus here on an area that has received less attention: how later-developed literacy skills for English learners can be supported through the cultivation of linguistic, metalinguistic, and sociocognitive skills.

Our interest centers on *deep* reading comprehension as a complex suite of abilities, skills, and strategic processes that enable the literate social practices characteristic of the successful transition to learning from texts (see, e.g., Kintsch 1998). Deep reading involves grasping not only the surface-level meaning of a text's words and sentences but also being able to use that meaning to interpret and engage with the world in ways that shift understanding (Allen and McNamara 2020; Dinsmore and Alexander 2016; LaRusso et al. 2016; List et al. 2023). Research shows that for this kind of reading comprehension, domain-general skills such as academic language, complex reasoning, and social perspective taking are predictive of performance (LaRusso et al. 2016). Furthermore, experimental evidence demonstrates that when those skills are cultivated through curricular intervention, deep reading comprehension improves (Jones et al. 2019; but see Corrin et al. 2022).

For English learners, the picture is promising, if far from complete. Several studies have found them to be differentially responsive to programs targeting these constituent skills (e.g., Lawrence et al. 2012; Hsin et al. 2024), yet such research rarely enters the SoR conversation because it falls outside the area of 'foundational skills.' As such, here we synthesize key research that embodies understudied strengths that English learners, in the process of becoming multilingual, may bring to their schooling. These strengths fall into the three categories mentioned in the introduction and expanded upon below: linguistic, metalinguistic, and sociocognitive skills and knowledge. We do not conceptualize these buckets as mutually exclusive; morphology knowledge, for example, is both germane to linguistic knowledge and enabled through metalinguistic awareness.

2.1 | Linguistic Skills

Linguistic skills, encompassing the vocabulary, syntax, and connected discourse knowledge necessary for understanding the meaning of texts, figure prominently in every model of text comprehension, operationalized typically as oral language knowledge (Oakhill et al. 2014). English learners bring rich oral language experiences, in languages other than English and in many cases in English as well (e.g., if their spoken English skill is stronger than their English literacy skills), that encode their experiences with the world. This oral language knowledge is central to reading, serving as a form of background knowledge that readers tap to make meaning, with vocabulary playing an increasing role in text understanding for older readers tackling complex texts (Ahmed et al. 2016; Hattan and Lupo 2020; Oakhill and Cain 2012). Here, background knowledge refers both to knowledge about the world (i.e., individuals, entities, phenomena, events) and to the language used to express that knowledge (Afflerbach et al. 2008; Alexander et al. 1991; Hattan et al. 2024).

Yet comprehending academic texts, which contain language associated with the academic register that readers may not have encountered in oral discourse (Phillips Galloway, McClain, and Uccelli 2020; Snow and Uccelli 2009), presents a distinct challenge. While earlier research often equated academic register skills with vocabulary knowledge alone, newer frameworks expand the construct to include knowledge of (see Barr et al. 2019; Phillips Galloway, Uccelli, et al. 2020): connectives (e.g., but and therefore) that signal relationships between ideas; nominalizations, noun phrases, and referents that support succinctness when packaging ideas; and familiarity with common text organization structures (cause-and-effect; claim-evidence) (see the Core Analytical Language Skills or CALS construct, Uccelli et al. 2015).

Numerous studies demonstrate the strong contribution of these academic register skills to reading comprehension in middle grade students, including current English learners (Phillips Galloway & Hsin, in preparation; Phillips Galloway and Uccelli 2019). In one such study, students classified as English learners, although initially starting with lower English academic register skill levels than peers not designated as English learners, were found to exhibit a strong growth trajectory that mirrored that of their native English-speaking peers (Phillips Galloway and Uccelli 2019). Over a two-year span from sixth to seventh grade, growth rates in reading comprehension were positively associated with initial levels of academic register knowledge in all students, including English learners, suggesting the potential for students to dynamically capitalize on their burgeoning English academic register skills to understand the language of print (Phillips Galloway and Uccelli 2019). Among a rather different group of bilingual students—those who are bimodally bilingual users of American Sign Language (ASL) and English print—similar associations have been found, for example, that students' ASL vocabulary knowledge and their ASL syntactic knowledge are predictive of their English reading comprehension and English syntactic understanding (Hoffmeister et al. 2022).

These findings are suggestive of the importance of encouraging students to master academic registers (see Phillips Galloway et al. 2022; although whether this is best accomplished through direct instruction or as a byproduct of other instructional emphases remains unsettled) as a component of educators' goals for students' learning from texts. Other studies have examined the cross-linguistic nature of academic register-reading comprehension relationships for students with exposure to academic language in their home language, finding that Spanish academic register skills among students educated bilingually in both Spanish and English uniquely and significantly contributed to English reading comprehension, beyond the contributions of English academic register skills, word reading, English proficiency, and sociodemographic factors (Aguilar et al. 2020; Phillips Galloway, Uccelli, et al. 2020). In sum, multilingual students with greater levels of academic register knowledge—regardless of language, and at various levels of English proficiency—tend to be better at comprehending English texts. To encourage these strengths, however, instruction may need to be keyed precisely to students' familiarity with the academic language—in Spanish and in English—common in school texts, and that instruction may need to be designed to cultivate that knowledge further as well (see, e.g., Proctor et al. 2020; Silverman et al. 2021).

2.1.1 | Vocabulary and Semantic Knowledge

For multilingual learners, vocabulary is a gateway to unlocking meaning in texts. As English learners gain English proficiency and their knowledge spans more than a single linguistic system, they can begin to draw on multiple lexicons, transfer knowledge across languages, and leverage unique insights into word meaning and structure—especially in academic contexts. In the academic register, vocabulary is of multiple types, including: discipline-specific proper nouns (e.g., President Johnson; World War II), conceptually dense nominalizations that allow for the discussion of abstract processes (e.g., democratic republic; derivatives; hypothesis), and verbs that cue thinking processes common across disciplines (e.g., estimate; reason out; predict) (Baumann and Graves 2010; Schleppegrell 2004). And although academic vocabulary is learned much in the same way as other new words, the acquisition of vocabulary in the academic register is especially dependent on rich exposure over time—a richness that owes to the fact that students may be more likely to encounter these words in (academic) texts rather than in colloquial conversation. In many cases, knowledge of academic vocabulary entails understanding conceptual relationships and usage patterns that differ both by discipline and across languages, and it can be supported by a focus on content-area instruction, peer discussion, and opportunities for multimodal learning (Truckenmiller et al. 2019) as well as through targeted review (Lawrence et al. 2025).

For multilingual learners, studies have long documented cross-linguistic relations between vocabulary skills and reading comprehension outcomes for English learners and the broader category of multilingual learners (e.g., Proctor et al. 2005, Proctor et al. 2006, 2012), although such links are not always found (Genesee et al. 2006). One hypothesis that has circulated in the field is that transfer is more likely when readers encounter words that have common etymologies across languages, sharing word meanings as well as orthographic

and phonological features (Proctor and Mo 2009). For example, Spanish-English cognates, which are especially common in school texts due to the prevalence of Latinate-origin words, have been shown to support Spanish home language students' English reading comprehension in grade 4 onwards in both qualitative and quantitative studies (Crosson et al. 2025; Jiménez et al. 1996; Kieffer and Lesaux 2012). This may explain why cross-linguistic transfer effects of vocabulary knowledge, and especially cognate awareness, are more commonly observed when students are reading academic texts rather than those containing more general vocabulary (Ordóñez et al. 2002).

Together, these studies highlight how multilingual readers can draw on vocabulary (and associated morphology) knowledge as they read in English. This finding arguably owes to the depth and breadth of linguistic knowledge that the curriculum conveys. The analytical use of this morphological knowledge—as opposed to simply knowing forms and meanings of morphemes—in the complex language of academic texts is taken up further in the section below on metalinguistic skills.

2.1.2 | Syntactic Knowledge

For the broader group of multilingual learners, syntactic knowledge, or the ability to combine words into sentences and link ideas within and across them, is shaped by experiences with more than one linguistic system. For decades, the field operated under the assumption that young bilinguals' two languages—including knowledge of features of language above the word level—developed separately. Recently, though, studies challenge this view, pointing instead to the possibility that multilingual readers draw on shared representations across languages—and as emergent multilingual readers, English learners, too, can develop shared syntactic representations (see, e.g., Hartsuiker and Bernolet 2017; Yu and Odlin 2015). These connections impact how multilingual learners combine words within sentences (syntax) and connect propositions within and between these sentences to achieve cohesion when reading (often relying on connectives like *however*, *but*, *as a result* in English). Understanding connectives, in particular, is essential to grasping cause-and-effect relationships, understanding contrasting ideas, and identifying evidence-based claims in text (e.g., Cain and Nash 2011; Crosson and Lesaux 2013)—all mainstays of deep reading comprehension.

In fact, studies reveal evidence for both the possibility that child and adult multilinguals access their respective stores of syntactic knowledge using language non-selective mechanisms (Dijkstra and van Heuven 2002) and have syntactic representations that are shared (or at least connected) across languages (Hsin 2014; Serratrice 2022; Vasilyeva et al. 2010). For example, Vasilyeva et al. (2010) showed how exposing young bilinguals to passive syntactic structures in Spanish led to the increased use of these same structures by the children in English. This so-called 'structural priming' effect—when the syntax of a first language is imposed on the lexicon of a second—represents one type of phenomenon that bilinguals may experience when reading in languages that have sufficient similarities in how they are structured.

Studies also offer the insight that bilingual children are sensitive to the relative frequency of structures in a home or first language when producing their second language (Unsworth 2025). This shared set of syntactic representations appears to be impacted by children's respective levels of proficiency and syntactic skill in both languages (e.g., Siu and Ho 2015). Yet, additional studies are still needed to tease apart the other factors—such as the timing of exposure to an additional language, typological distance between different first and additional language pairs, and the influence of instruction—that may impact the degree to which children use first-language syntactic knowledge to inform reading in a second language (Unsworth 2025).

2.2 | Metalinguistic Skills

Metalinguistic skills refer to higher-order thinking skills that involve consciously reflecting on and manipulating the structural and functional aspects of language. This allows readers to analyze and reason about language, as well as to monitor and regulate their comprehension. In early reading development, metalinguistic skills underpin word recognition, but for older readers, especially those engaging with complex texts, such skills enable the flexible strategic deployment of linguistic knowledge used to infer the meaning of unfamiliar vocabulary, to unpack dense syntax, and to construct meaning across extended sections of print.

Multilingual learners can rely on metalinguistic awareness as a skill earlier and more viscerally developed because, very early in childhood, they become sensitive to and develop a concept of different languages (e.g., knowing that "gato" is a Spanish word meaning the same thing as the English "cat"; Paradis et al. 2011). They also benefit from the opportunity to deepen knowledge of contrasts (and similarities) between their languages at every level, from phonetics up to semantics and pragmatics—contrasts that have analogies across registers, textual genres, etc. (and can also help catalyze reading development; Sierens et al. 2019, 2021). The multifaceted ways in which being multilingual can help an individual think *about* language are a potential source of reading-relevant strengths seen often among multilingual learners.

2.2.1 | Word Recognition: A Metalinguistic Skill Still Relevant for Older Readers

Word reading is the ability to take words written on a page and convert them into their spoken counterparts, drawing on five subskills: phonological awareness, the alphabetic principle, phonics knowledge, decoding skills, and recognition of words on sight (Duke and Cartwright 2021). In emergent readers, these metalinguistic skills are classified as foundational and so may receive little instructional attention in the upper grades. However, for English learners in the middle grades and beyond, many of whom enter U.S. schools at different points in their educational trajectories (e.g., as newcomers, as students with limited or interrupted formal education), these skills often remain instructionally relevant (Donegan and Wanzek 2021). Moreover, for more skilled readers who have mastered basic English decoding, especially when encountering unfamiliar academic

vocabulary, word reading continues to operate as a metalinguistic process: it requires consciously analyzing the structure of unfamiliar words and drawing on morphological and etymological cues to infer meaning, as discussed below (Olson 2013). As Ehri argues in her theory of orthographic mapping (2014), skilled word readers connect a word's phonological, semantic, and orthographic representations—a metalinguistic process that enables automatic word reading.

For word recognition, more than in any other main component of reading, the specific languages a multilingual learner speaks matter, as argued by psycholinguistic grain-size theory (Ziegler and Goswami 2005). Some subskills, like phonological awareness, appear to develop in a mutually supportive fashion regardless of the pair (or group) of languages the learner speaks (see, e.g., Branum-Martin et al. 2015). Such findings indicate a unified or at least overlapping capacity for consciously recognizing the sounds of an oral language system across one's multiple languages—sounds at the level of words, phonemes (*phonemic awareness*), syllables, and parts of syllables (Ehri et al. 2001). These findings are consistent with the syntactically focused discussion above, showing the extent to which knowledge corresponding to a student's multiple languages can rely on shared subpersonal representations.

In virtue of their multilingual experience, the repertoire of speech sounds to which multilingual learners have exposure is typically larger than that available to monolingual learners (although there will always be some overlap in segments; see, e.g., Ladefoged 2001). Having this larger overall repertoire, or having two complementary repertoires, can be helpful for the development of phonological awareness even for phonologically/typologically distant languages (Branum-Martin et al. 2015). For example, Tong and McBride-Chang (2010) reported evidence of mutually reinforcing phonological awareness skills among young English-Cantonese learners, despite dramatic differences between these two languages (see also Verhoeven 2007). Studies of readers learning pairs of languages with more in common within their phonetic and phonological systems have likewise shown that phonological awareness in one language coincides with improvement in the other (e.g., Anthony et al. 2009; Bialystok et al. 2003, 2005; Raynolds et al. 2017).

Although understudied among current English learners—a running theme across our commentary—young multilingual learners in various linguistic communities have been found to outperform their monolingual peers on some phonological awareness tasks (e.g., Chen et al. 2004; Kuo and Anderson 2010). Interestingly, that effect may fade out after a few years of schooling, once literacy skills have had a chance to develop and to shape phonological understanding through a writing system (see Kuo and Anderson 2010). Kuo and Anderson (2010) proposed a "structural sensitivity hypothesis" to explain these early multilingual advantages: exposure to phonological segments in more varied contexts produces more advanced abstract phonological representations, which in turn supports reading (see also Hsin 2014, in the morphosyntactic domain).

In both elementary and secondary contexts, multilingual learners may be better positioned to acquire reading-relevant skills such as phonics, decoding, and recognition of words at sight that are more closely tied to the *written* modality of text (e.g., Gottardo et al. 2020, 2021; Ramirez et al. 2010). Importantly, older multilingual readers, especially those who have already become literate in a transparent orthography (like Spanish), can often accelerate phonics learning in English because they bring existing metalinguistic knowledge of sound-symbol correspondence. Stronger phonological awareness in their first or their additional language(s) will tend to demonstrate stronger word recognition (e.g., Prevoo et al. 2016; Ramirez et al. 2010; Tong and McBride-Chang 2010), consistent with theories of linguistic interrelatedness/interdependence at multiple levels of representation. This implies that for multilingual readers, word recognition is a foundational skill, providing an essential access point to the meaning and a metalinguistic resource in use as they actively comprehend complex texts.

2.2.2 | Morphology Knowledge

Although often discussed separately, word recognition and morphological awareness are complementary metalinguistic skills that interact dynamically in older readers (e.g., Goodwin et al. 2013; Zhang et al. 2020). Phonological awareness and decoding enable readers to access the spoken form of an unfamiliar word, while morphological and etymological analysis allow them to unpack its meaning and see its relationship to other words in the text. For multilingual learners, these processes are often reinforced across languages, creating a dual pathway in which word recognition feeds vocabulary growth, and vocabulary knowledge, in turn, supports more efficient word recognition.

Morphological awareness, defined as the ability to detect and consciously reflect on the smallest units of meaning comprising words (i.e., morphemes; Carlisle 1995), is a higher-order analytical skill that is distinct from simply knowing morphological forms (see, e.g., Zhang et al. 2020). It is broadly transferable across languages and especially critical for learning to read in phonologically opaque orthographies like English, where word reading often relies on morphosyllables rather than phonemes, unlike more phonologically transparent orthographies like German or Spanish (Ziegler and Goswami 2005). Because English morphology is highly irregular (i.e., underlying morphemes with a common meaning are phonologically realized in different ways, such as the past tense "-ed" ending being pronounced as [t], [d], or [ɘd]), English morphological awareness may develop more slowly than in languages that have more regular morphophonological structures (Duncan et al. 2009).

English learners may be at an advantage here. Early experience with more transparent orthographies can heighten sensitivity to English morphological structures—particularly for Spanish-English bilinguals, whose languages overlap in morphemic forms and combination patterns (e.g., information/*información*) (Crosson et al. 2025; Kuo and Anderson 2010). In contrast, Mandarin-English bilinguals have been found to transfer compound formation logic (e.g., sea + bed = seabed), leading to a measurable benefit in English word reading (Chung et al. 2019; Pasquarella et al. 2011)—while phonological awareness contributes less to their English reading abilities. Yet this pattern is reversed in English monolinguals, whose reading is more strongly

predicted by their knowledge of sound-symbol correspondence, while their less developed conceptual understanding of how words are formed through compounding contributes minimally to that reading (Hsu et al. 2019; McBride-Chang et al. 2005).

The relationship of morphological knowledge to deep reading comprehension is multifaceted. Morphological awareness in both Spanish-English and Mandarin-English bilinguals contributes directly and indirectly to English word reading through morphological analysis (inferring meaning) and morphological decoding (reading polymorphemic words) (Choi et al. 2018; Dickinson et al. 2004; Sun et al. 2022). These skills also support comprehension by expanding academic vocabulary and strengthening listening comprehension (Spencer et al. 2017; Zhang and Lin 2021). And despite the wide range of studies conducted across disciplines on both word recognition and morphology skills among multilingual learners, here it is especially clear that the plurality of U.S. English learners—elementary students with Spanish as a home language, currently designated as English learners—are underrepresented in this research. We will return to this point after discussing sociocognitive skills, the third area of multilingual strengths that are too little considered in literacy instruction.

2.3 | Sociocognitive Skills

The final oft-overlooked supportive factor for English learners' literacy learning is a suite of metacognitive skills that are the apparent result of learning and managing more than one language in a sociocultural context. These so-called sociocognitive skills involve deploying background knowledge, including language, context, and social/cultural information, to construct meaning from text (e.g., Gee 2001; Langer 1987). They also include the ability to make inferences, draw conclusions, and relate text to one's own experiences and perspectives, all of which are central to deep reading comprehension. Because these skills operate across academic and social domains, they have sometimes been called *domain-general* (e.g., LaRusso et al. 2016). Sociocognitive skills can be deployed individually, as when reading silently, or collectively, as learners work to co-construct text understanding together. In practice, they encompass reading-relevant processes like activating pertinent background knowledge (e.g., Hattan et al. 2024), making inferences from and with text (e.g., McNamara 2020), tracking and critiquing actors' and authors' perspectives (e.g., Diazgranados et al. 2016), and monitoring ongoing reading comprehension (e.g., Oakhill and Cain 2012). Under supportive instructional conditions, each of these can be a locus of English learners' reading strengths, especially in the upper elementary grades and beyond.

2.3.1 | Background Knowledge

Background knowledge takes many forms (academic, linguistic, experiential) and exerts a powerful influence on reading comprehension (e.g., Afflerbach et al. 2008; Cervetti and Wright 2020; Hattan and Lupo 2020). It can help weaker readers compensate for less developed skills (e.g., McNamara et al. 1996; McCarthy and McNamara 2021), especially when reading expository texts (e.g., McNamara et al. 2011). But background knowledge is not restricted only to academic content (Alexander et al. 1991; Hattan et al. 2024). For English learners, a particularly relevant dimension is cultural background knowledge and funds of knowledge (Duke et al. 2021; Gabriel and López 2024; Moll 2019; Moll 1992). An English learner's prior knowledge, especially of language, is likely to differ from that of their peers and from the authors of school texts. Although some experiences may be shared with peers and teachers and reflected in texts, English learners also bring unique lived realities, such as having read about a topic in a home language or drawing on life experiences not reflected in the curriculum. Reading comprehension involves integrating what the reader knows with what is presented in a text (Kintsch 1998). In other words, melding knowledge gained in the reader's communities of practice with knowledge generated in the author's (Phillips Galloway, Uccelli, et al. 2020). As a result, English learner readers' interpretations may be shaped by the degree of overlap between their linguistic/experiential knowledge and that of the text author, who typically has extensive experience reading and writing in English within academic communities (Phillips Galloway, Uccelli, et al. 2020).

Although not much experimental research has been conducted on this topic (see, e.g., Cartledge et al. 2016), it has intuitive appeal (e.g., Ladson-Billings 1995), and what studies have been published suggest that recruiting multilingual learners' culturally specific background knowledge may support improved outcomes in such domains as academic vocabulary, reading engagement, and reading motivation (Gallagher et al. 2023; Jiménez 1997). Importantly, this dimension of sociocognitive skill connects directly to another area where multilingual learners, and English learners in particular, often demonstrate advantages: perspective taking, a form of accumulated background knowledge of how others think.

2.3.2 | Theory of Mind and Social Perspective Taking

Although background knowledge shapes how readers connect to text, the ability to recognize and navigate others' mental states influences how they interpret and respond to perspectives embedded in texts. From a young age, multilingual children learn that not all people understand their languages (e.g., Genesee et al. 1996), fostering an awareness that others can have beliefs distinct from their own—a key component of *theory of mind* (see, e.g., Yu et al. 2021). The precocious development of *theory of mind* in multilingual learners is not fully understood and may be due to several factors such as enhanced inhibitory control needed to operate in a monolingual language mode (e.g., Huang et al. 2023) and heightened social sensitivity from navigating conversations with interlocutors who may only speak one of their languages. But the phenomenon itself is widely accepted (in contrast to findings on a bilingual advantage in executive functions generally: e.g., Paap et al. 2016). Theory of mind is vital for text comprehension, especially of narratives, where agents' points of view, what they know, and what they believe (whether accurately or inaccurately) are often key drivers of the plot (e.g., Tompkins et al. 2024; Wang et al. 2024). Multilingual learners' strengths in this area have been linked to their comprehension abilities in both oral and written modalities through upper elementary

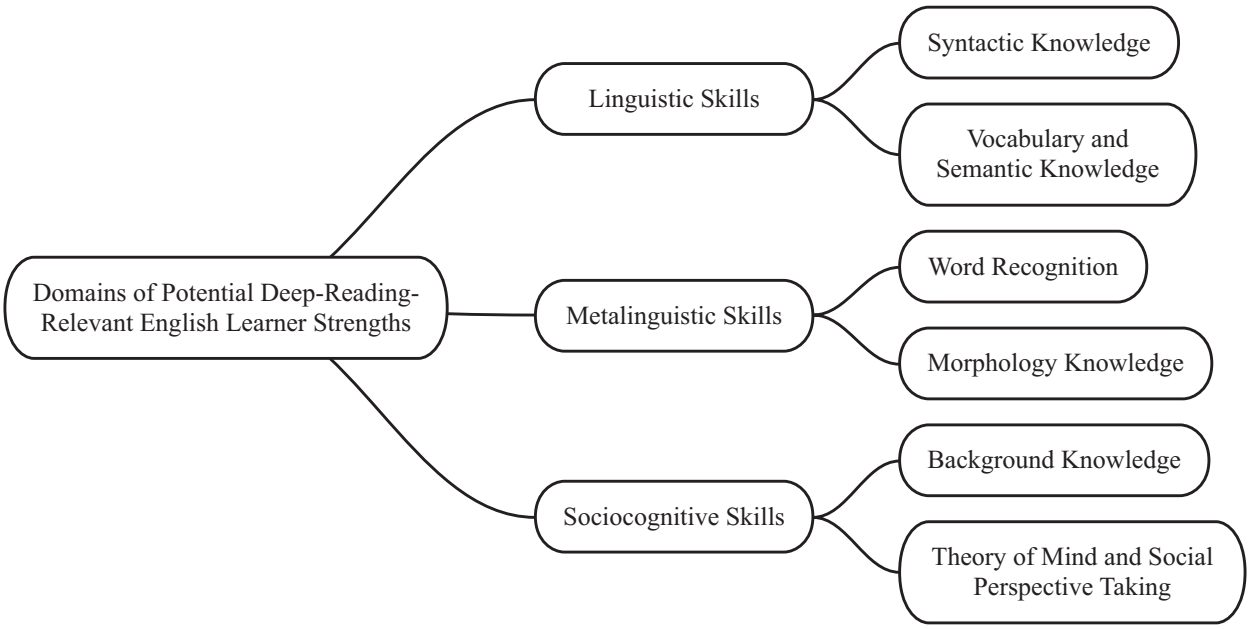

FIGURE 1 | Overview of the domains and skills reviewed as potential strengths of English learners that are relevant to deep reading comprehension.

school, even if they are still in the process of acquiring their second language (Taboada Barber et al. 2022).

With academic experience, theory of mind can expand into social perspective taking—the ability to acknowledge, articulate, and situate another's perspective within its social context (Kim, LaRusso, et al. 2018; Selman 2003). Research with older multilingual learners, through middle school, has shown that the academically tuned construct of social perspective taking (Kim, LaRusso, et al. 2018; Selman 2003) is also a strength of students who speak more than one language. Social perspective taking relies on theory of mind but expands its academic relevance by suggesting multiple levels at which another's perspective can be represented: by acknowledging it, by articulating it, and by positioning it in light of the social role of the person who holds it (Kim, LaRusso, et al. 2018). Some of the research on social perspective taking in multilingual learners has focused on students reclassified as English proficient; this work indicates that multilingual learners who have gained English proficiency during their schooling call upon multiple perspectives in their academic writing more often than their monolingual peers (Hsin and Snow 2017). Other work on this construct has found that supportive curricular contexts can impact the ability of current English learners to engage in social perspective taking within various writing tasks (Hsin 2014; Hsin et al. 2024; Kim, Hsin, and Snow 2018).

Potentially, background knowledge and perspective taking form a complementary set of cognitive strengths that support deep reading comprehension. Background knowledge anchors text understanding in familiar concepts and experiences (McCarthy and McNamara 2021), while perspective taking allows readers to navigate and reconcile multiple viewpoints, whether those of authors, characters, or peers. For multilingual learners, culturally informed schemas offer a strong interpretive base, but perspective taking ensures flexibility when engaging with texts written from unfamiliar cultural and social standpoints. When instruction draws on both, it can recruit resources that can facilitate access to the knowledge and perspectives contained in texts.

In sum, deep reading instruction that works for English learners and helps them thrive as readers should draw on their multifaceted strengths such as those just examined—and should not, of course, compromise their social–emotional wellbeing or their English-proficient classmates' learning opportunities. We take it that the undertaught, and understudied, skills reviewed above (which we synthesize here into Figure 1 for ease of recall) can be further explored in both research and practice, but care needs to be taken in conceptualizing and conducting that future research, putting related approaches into practice, and connecting to public discussions related to the science of reading and the SoR movement. In the next section, we draw out connections between our findings and two relevant models of reading, discussing how future research can evolve to help clarify promising ways of supporting English learners' reading skills; then, before concluding, we offer examples of instructional approaches that embody supports across the domains explored in our review and a final exposition of our take on a science of strengths-based approaches to English learners' literacy development.

3 | Connecting Lessons to Models of Reading and Modes of Research

Although any number of models of reading have some commonalities with the lessons of this review, we review two recent frameworks that offer complementary ways of situating those lessons and potentially helping the field to move forward. We also argue, however, that to do so in ways that are worthy of researchers' and practitioners' attention, approaches to research may need to shift, toward increased involvement from a wider range of parties, and toward greater rigor in testing falsifiable hypotheses and understanding learning mechanisms (regardless

of the inclinations or intuitions of any given researcher or community member).

3.1 | Modeling Reading as Socioculturally Situated and Individually Variable

The domains of focus in this paper are, of course, found in various models of reading, and the lessons we draw may well inform future iterations of those models. Two recently proposed models are particularly well aligned with our approach: Gabriel and López's (2024) Asset-Based Integrated View of Reading (ABIVR), and Francis et al. (2018) Complete View of Reading (abbreviated as CVR*i*, where the *i* reflects an individual-level subscript indicator). Both of these models are rooted in other models with long traditions of empirical investigation in reading research. The ABIVR elaborates the recently proposed Active View of Reading (AVR: Duke and Cartwright 2021), itself a distant successor of the Simple View of Reading (SVR) (Hoover and Gough 1990), while CVRi is inspired by the RAND heuristic (Snow 2002) that underscored the importance of reader, text, and task for the success of reading comprehension.

Gabriel and López (2024) argue that the AVR should be elaborated to account for the experiences and capacities of a wide variety of learners, including multilingual learners, and to accommodate a genuinely asset-based approach to teaching reading. Specifically, their ABIVR model identifies several components of the AVR to which learners may bring skills not included in Duke and Cartwright's model, including orthographic knowledge, metalinguistic, and metadiscursive awareness, and cognitive and affective empathy, among others (Gabriel and López 2024). Those additional skills have a clear affinity with the areas we have focused on for catalysts of deep reading comprehension among English learners in this paper. For instance, the metalinguistic skills we highlight, such as morphological awareness, map cleanly to the ABIVR's expanded skillset. Similarly, the sociocognitive domains like theory of mind and social perspective taking, while overlooked in typical SoR conversations, resonate with the ABIVR's inclusion of empathy. By naming these capacities, the ABIVR offers a more complete account of the tools that multilingual learners can bring to the task of reading, and in so doing begins to operationalize an asset-based orientation—though it does not pay particular attention to *deep* reading comprehension or other more advanced literacy practices, nor does it focus on currently designated English learners specifically.

Francis et al. (2018), on the other hand, offer a unique proposal that highlights the developmental nature of reading skill, explicitly modeling the fact that the contributions of both reader and text to reading tend to vary within and across time. For English learners who are in the process of acquiring both spoken and written skills in English, this sort of variation is only magnified: the many capacities reviewed throughout this piece are not expected to emerge uniformly across the population of English learners by any means. Instead, the circumstances in which a specific child classified as an English learner is growing up will condition what strengths that child displays most saliently, at what points in time, and how those strengths can be built on—and built up—during interactions with different texts at school. The pursuit of pedagogy that is based on those strengths across linguistic, metalinguistic, and sociocognitive domains, the CVRi would suggest, needs to be carried out with attention to their variation within and across individual students and to the ways they may be relevant to various texts and text types. This dovetails with our call for instructional designs that build on learners' existing strengths, while also recognizing variability.

Taken together, these models shift the conversation beyond what works best for 'the typical reader'. The ABIVR begins the critical work of naming a broader set of reading-relevant skills, including motivation, identity, and sociocultural dimensions germane to English learners, and the CVRi highlights variation within and between readers over time and across tasks. Our proposed buckets offer a heuristic for categorizing and operationalizing multilingual learners' assets within these models, making explicit which capacities matter, how they develop, how they vary, and which are most likely to support deep reading comprehension. In addition, this paper aims to expand the conversation to consider those English learners in upper elementary school and beyond, who face qualitatively different literacy demands from those faced by the early readers on whom existing models and SoR conversations focus. As we have argued above, during the middle grades, comprehension becomes increasingly relational, with deep comprehension tasks foregrounding the role of linguistic, metalinguistic, and sociocognitive skills as much as reading fluency or accuracy (see also, e.g., Goldman and Snow 2015). Thus, strengths-based and developmentally responsive models of reading must explicitly account for the demands of later schooling. This expansion matters not only for theory-building, but also for policy and practice: it shifts the focus from simply "closing foundational gaps" to cultivating the higher-order literacy capacities that will determine whether English learners, both before and after they attain English proficiency, can fully participate in the classroom's intellectual and civic activities.

3.2 | Science of Reading Research: Updating the English Learner Evidence Base

Whether involving expansions of the ABIVR, the CVRi, or some other model, we see the findings of this review also as recommending two intertwined prospective updates to the English learner evidence base: by exploring who is contributing to work on instructional practices for reading, and by insisting on methodological rigor that puts pressure on consensus positions to reveal reliable practices and whom they best serve. Too often studies of English learners' language and literacy skills are designed without consulting the students, families, and teachers most familiar with their strengths (see Melzi et al. 2019). This observation is not new; García-Coll and colleagues (Garcia-Coll et al. 1996) proposed an integrative model for studying child development in non-majority community groups nearly 30 years ago. However, despite inspiring over 250 analytical research articles (see Perez-Brena et al. 2018), the everyday meaning-making practices of multilingual learners—translation, cross-linguistic analogy, nuanced perspective taking—are treated as incidental or taken for granted, supposedly clear enough to educators that making and testing falsifiable claims about them is unnecessary.

Our review suggests that missing these practices may well be more than an oversight; it could also result in a lost opportunity to refine and expand theoretical models of reading to inform research that starts with the presumption that English learners, as (emergent) multilingual learners, hold multiple languages in a single mind and can call upon (or inhibit) these at will (e.g., Abutalebi and Green 2016; Bialystok and Martin 2004; Dewaele 2001)—focusing in on the linguistic, metalinguistic, and sociocognitive skills explored in this review. The cognitive and social flexibility arising from that presumption is directly relevant to comprehension processes, particularly at advanced levels, yet it rarely shapes the questions researchers ask, the constructs they measure, or the interventions they design. And although recently asset-based instruction for multilingual learners has been on the rise, that instruction has tended to display a more sociocultural orientation (e.g., Ladson-Billings 1995, 2014; see López 2017) rather than the cognitive one we have foregrounded here. Certainly more research—especially rigorous research—is needed on all fronts.

If the field continues to conduct research and development on multilingual learners' language and literacy skills from the perspective of monolingualism and under unwarranted assumptions that common knowledge reflects genuine mechanisms, it risks missing opportunities to support these children—and indeed to develop models of reading that incorporate all the many capacities that readers are capable of deploying (cf. Gabriel and López 2024). Three connected questions are relevant here:

1. To what extent might reading-relevant multilingual learner skills have been missed because current and former English learners were not involved in thinking about the issue? (the *skills* question)
2. How many promising practices are yet undiscovered because research has not been in close enough communication with the relevant children and communities? (the *instruction* question)
3. How will rigorous, hypothesis- and mechanism-focused research identify and help bring to scale the best possible approaches to teaching advanced literacy skills to English learners? (the *methodology* question)

On the first question about student skills, qualitative and exploratory studies could probe the possibility that English learners' experiences learning to read, especially at more advanced levels, include affordances that are not as typical of (or possible for) monolingual learners (e.g., the extent to which translation sub silentio is engaged in, the extent to which the author's point of view is explicitly considered). This does not mean we would expect introspection to reveal especially durable truths about reading phenomena, but exploring this approach could reveal additional ideas to pursue with cognitive psychological or classroom-based research. On the second, about instruction, there may well be ways of recruiting multilingual learners' strengths—and even those of their peers, also untapped—that will only reveal themselves in consultation with the students and communities that are the recipients of instruction. For example, more exercises involving metalinguistic awareness could support English learners' language acquisition and linguistic self-efficacy and could also, in the end, prove beneficial for monolingual learners. Until research and development designed to affect English learners involves more English learners themselves (both current and former), we may not know the answers to these questions—pressing though they are in the wake of continued low reading achievement nationally among students from all groups. And yet, on the third, methodology-focused question, the need for rigorous research that reflects critical skepticism of appealing claims and approaches is also great (see, e.g., Brady et al. 2023). Determining the best ways to conduct that research so it can be reasonably expected to apply in a given context will require the adoption of appropriately broad notions of rigor (especially to foreground mixed-methods research), and designing and conducting that research may well be a challenge (see, e.g., Joyce and Cartwright 2020). But it is a challenge worth taking up to ensure that future research best serves the individual students who too rarely benefit from instruction that reliably meets their needs.

Our paper contributes here by specifying concrete, researchable domains—linguistic, metalinguistic, and sociocognitive—through which multilingual learners' strengths can be observed, measured, and linked to comprehension outcomes in the upper grades. We have thus offered a starting point for expanding the *science* of which the science of reading consists, not only to document what English learner readers can do but also test how their strengths can be cultivated and supplemented through instruction. Doing so responsibly, to produce durable conclusions, will require studies that pit hypotheses against one another and carefully explore mechanisms, regardless of the outcomes that the researchers—or indeed any participating community members—may expect or hope to find.

4 | Moving Scientifically Grounded Strengths-Based Instruction Into the Classroom

Before closing, we turn to address education practitioners, whose charge it is to make the most of what is currently known to support all students to become readers. Even as theoretical models and empirically grounded approaches continue to be refined, teachers and researchers working in classroom settings are engaged in linking research evidence to strengths-based, linguistically informed practice. Therefore, this final substantive section reprises the ideas from this review and offers two illustrations of their application within the context of two curricular programs, each developed within robust researcher-practitioner partnerships. The presentation of *Word Generation* and *TRANSLATE* is intended not to endorse any particular program or approach but rather to show how the insights of this review can inform coherent, strengths-based designs for literacy instruction. The discussion then closes by returning to the topic of what an expanded SoR movement that accommodates older English learners' strengths and needs might look like.

4.1 | The Science of (Teaching) Reading: Capitalizing on Learners' Strengths

The literature reviewed in the first section of the paper points to a set of actionable ideas for designing instruction for administratively designated English learners in the upper grades

grappling with increasingly complex texts. While general guidance as synthesized in existing practice guides remains essential (see Baker et al. (2014), available at https://ies.ed.gov/ncee/wwc/PracticeGuide/19), it must be tailored to the profiles of this population. Core recommendations include providing systematic instruction in remaining foundational word reading skills, including through a focus on morphology; continuously building knowledge of vocabulary and English academic register features over time, in all content areas, and through regular structured opportunities for speaking, reading, and writing against the backdrop of conceptually rich knowledge building instruction; and providing additional intervention to those who need it. For upper-grade English learners, however, our review suggests that these practices may not be enough. Instead, they are likely to have the greatest impact when they explicitly draw on what these students know—about language within their existing linguistic repertoire, about how language 'works,' and about how language is used for social interaction in the world. That is, instruction should make purposeful use of students' knowledge of other languages, their experiences moving between linguistic and cultural communities, and their ability to take multiple perspectives. This fully acknowledges the unbounded and dynamic nature of multilingual skill sets (García and Wei 2015).

Two recently developed curricula illustrate two very different ways such an approach can be put into practice, one emphasizing the development of domain-general skills that are important for deep reading comprehension and the other focusing on recruiting students' multilingual linguistic and metalinguistic resources to develop their literacy skills. Word Generation (Snow et al. 2009; see https://www.serpinstitute.org/wordgen) engages students in reading informational text representing a range of sources, discussing and debating high interest, socially relevant topics, and writing about a high-interest topic on which multiple perspectives are arguably reasonable (*Who should be held responsible when teens smoke? Should people be able to rent pets?*). For English learners in upper elementary and middle school, this format leverages linguistic, metalinguistic, and sociolinguistic competencies: academic vocabulary instruction leverages cognate knowledge, and ample opportunities are present for transferring persuasive strategies learned in other languages to speech and writing, while spending considerable time with grade-level or stretch text in the context of their general education classroom. Although not primarily designed for multilingual learners, Word Generation has been shown to support students' reading development (Jones et al. 2019). Indeed, multilingual learners show gains in their perspective taking skills, and in their knowledge of highly prevalent academic language and of targeted vocabulary words (Kim, Hsin, and Snow 2018). Other interventions, too, have taken up the call to support the language development of multilingual learners by tapping their metalinguistic and sociocognitive skills, focusing not on reading but on argumentation in writing where those skills are similarly valuable (Calderón et al. 2011; Matuchniak et al. 2014; Olson et al. 2016; O'Hallaron 2014; Schleppegrell and O'Hallaron 2011; Silverman et al. 2021). Like Word Generation, these approaches have often shown positive effects.

TRANSLATE offers a complementary model, focusing on young adult novels with thematic relevance to multilingual learners' lives (Phillips Galloway and Uccelli 2019; www.translatetoread.com; for information on TRANSLATE's development see Cole et al. 2012; David and Cole 2021; Jiménez et al. 2015; White et al. 2024). Its signature activity—collaborative translation—requires students to work with a peer to translate short segments of English text from the unit's focal novel into students' common additional language, a practice that connects to the frequent out-of-school practice of serving as a translator (Dorner et al. 2008; Tse 1996). For designated English learners, it builds and extends students' existing linguistic knowledge and reinforces metalinguistic strategy use by prompting students to analyze language structures across languages and, as they translate, to negotiate the meaning of the texts' language with peers (Cano and Ruiz 2020; David 2024; Shepard-Carey and Mathieu 2022). In doing so, they also gain more experience interacting with text with their English-proficient peers, an important source of linguistic and metalinguistic models for their developing proficiency. This task also requires sociocognitive work to select language that accurately communicates the author's message for a particular audience. Research indicates that such activities foster metalinguistic awareness, provide authentic opportunities to use academic register, and strengthen comprehension monitoring—skills essential for interpreting complex, grade-level texts (David and Cole 2021; Goodwin and Jiménez 2016; Jiménez et al. 2015; Phillips Galloway and Uccelli 2024). Proctor, Silverman, and colleagues' comprehension, linguistic awareness, and vocabulary in English and Spanish (CLAVES) program (Proctor et al. 2020) offers a kindred approach to focusing on the development of these skills, and the program has been found to support improvements even in writing rather than reading. For example, Silverman et al. (2021) reported that bilingual students—some current English learners, some reclassified—improved their use of argument and counterargument in their English-language argumentative writing after participating in CLAVES lessons.

Across both curricula, the instructional approaches that matter for upper-grade English learners are those that include meaningful and regular engagement with grade-level texts, embed explicit language instruction within personally and academically meaningful text work, recruit students' metalinguistic knowledge, and provide structured talk to model and reinforce the linguistic and logical norms of deep reading comprehension. Such practices directly address the reality that many designated English learners in the upper grades face a "double challenge": learning advanced English while simultaneously engaging with some of the most demanding literacy tasks of their school careers. By grounding instruction in their linguistic, metalinguistic, and sociocognitive strengths, we may better support them not only to meet these demands but to excel—becoming readers who can analyze, critique, and synthesize information across languages and contexts. What this means for progress toward a more comprehensive SoR movement is discussed immediately below.

4.2 | The SoR Movement: Broadening the Scope

The SoR movement has appropriately elevated evidence-based instruction to the center of public discourse, particularly around early reading and foundational skills (Duke and Cartwright 2021; Gabriel and Dennis 2025). In this review, we have sought to elevate research from a wider variety of disciplines—all relevant

to how a burgeoning reader in the process of acquiring two languages also learns the skills needed to read. In so doing, we hope to illustrate how a movement informed mainly by research conducted with young monolingual readers can expansively include multilingual learners in the upper grades, whose challenges extend beyond decoding to include deep comprehension of complex texts. For these readers, the SoR movement has yet to fully recognize the linguistic, metalinguistic, and sociocognitive skills and strengths that, when nurtured, potentially drive their success. While the skills highlighted here fall squarely within established research domains in multilingualism, language development, and reading theory, there is much to do to incorporate them into SoR-informed instructional approaches.

Naturally, for a popular movement—such as the SoR movement has become—sources from so many disciplines must end up distilled into large lessons. But one of those lessons should be precisely about the vast variation in young learners' experiences, and that variation can condition what instruction is most appropriate for them (see again the CVRi model; Francis et al. 2018). The SoR movement itself is an outgrowth in part of dyslexia advocacy (Coleman 2024; Hollingsworth 2023), which has rightfully long pushed for evidence-based instruction in early reading to support children who may struggle persistently to map sounds in oral language to print. Today, clear, research-informed approaches are still needed that will aid the field in identifying multilingual youth who require similarly intensive phonics instruction. And while it is widely assumed that *some* phonics is good for everyone and harms no one, clearly we must attend to the time allocated. Instructional time, after all, is time not spent on building background knowledge or engaging in rich and meaningful deep comprehension of text (not to mention promoting arithmetic skills or exercising artistic creativity) (Tierney and Pearson 2024). This lack of time allocated to meaning-based skill development is especially problematic when we take a strengths-based approach to instruction. Indeed, phonics and the plethora of skills we build in readers could (and should) be realized in different ways, and with the potential linguistic, metalinguistic, and sociocognitive strengths that readers bring in mind.

5 | Conclusion

This article points the way forward on numerous approaches that can build on the strengths often found among our multilingual learners, as they grow with their monolingual peers into literate leaders of the next generation. Our review makes three contributions. First, it synthesizes evidence across a range of fields to identify three buckets of skills and competencies—linguistic, metalinguistic, and sociocognitive—that English learners might utilize to support deep comprehension. While relevant to existing models of reading comprehension, these three buckets of skills are also informative for instruction. Educators have long received guidance to build on multilingual learners' strengths (e.g., Ladson-Billings 1995; Moll 1988). This article makes visible a wide range of ways to concretely translate that guidance into reading instruction. In addition to well-established approaches—seeking to use culturally relevant text or calling on students to share their experiences as part of building a coherent schema—this review suggests moving toward rigorously engaging students' linguistic, metalinguistic, and sociocognitive skills. Second, this review calls for a shift in research practice: toward models and methodologies that view English learners' multilingual repertoires as central, not ancillary, to reading development, and also toward a firmer commitment to rigorously testing the many claims that circulate through the field with not much more than intuition or consensus opinion to support them. Indeed, to arrive at an account worthy of widespread adoption, we must take the scientific stance of assuming that those claims may well be incomplete or incorrect and then working to prove ourselves wrong. Third, it argues that starting from a view that embraces the benefits of multilingualism is a powerful vehicle for bringing English learners to levels of English language and literacy skills that will support their educational success and long-term opportunities.

In sum, we have argued that the (emergent) multilingualism of English learners can afford them a range of cognition-specific strengths that are not merely supports for comprehension—they are also core resources for navigating texts' complex language and engaging critically with the ideas they contain. Shifting the focus in the field toward instruction that develops these strengths systematically, research that engages the communities that possess those strengths and tests rigorously for them, and movements that position them as germane to the mainstream SoR movement holds promise for ensuring that upper-grade students designated as English learners are not simply catching up, but learning to lead, in the world of making meaning from text.

Funding

The authors have nothing to report.

Ethics Statement

The authors have nothing to report.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

Endnotes

[1] We use the terms "multilingual/multilingualism" to refer to the outcome of a speaker of a language other than English acquiring English in school, rather than "bilingual/bilingualism," because we do not assume that all English learners speak only one non-English language at home. The term should be construed to include bilingual individuals but also trilingual individuals, etc.

[2] It should be noted that such comparisons rarely take into account the linguistic competence of the English-proficient comparison group (see Kieffer and Thompson 2018; Saunders and Marcelletti 2013), leaving open questions about both their knowledge of or proficiency in languages other than English and their skill in managing the multiple linguistic registers characteristic of the various communities to which they belong.

[3] We thank an anonymous reviewer for encouraging us to bring attention to several of the points in this paragraph.

References

Abutalebi, J., and D. W. Green. 2016. "Neuroimaging of Language Control in Bilinguals: Neural Adaptation and Reserve." *Bilingualism: Language and Cognition* 19: 689–698.

Afflerbach, P., P. D. Pearson, and S. G. Paris. 2008. "Clarifying Differences Between Reading Skills and Reading Strategies." *Reading Teacher* 61, no. 5: 364–373.

Aguilar, G., P. Uccelli, and E. P. Galloway. 2020. "Toward Biliteracy: Unpacking the Contribution of Mid-Adolescent Dual Language Learners' Spanish and English Academic Language Skills to English Reading Comprehension." *TESOL Quarterly* 54, no. 4: 1010–1036.

Ahmed, Y., D. J. Francis, M. York, J. M. Fletcher, M. Barnes, and P. Kulesz. 2016. "Validation of the Direct and Inferential Mediation (DIME) Model of Reading Comprehension in Grades 7 Through 12." *Contemporary Educational Psychology* 44: 68–82.

Alexander, P. A., D. L. Schallert, and V. C. Hare. 1991. "Coming to Terms: How Researchers in Learning and Literacy Talk About Knowledge." *Review of Educational Research* 61, no. 3: 315–343.

Allen, L. K., and D. S. McNamara. 2020. "Defining Deep Reading Comprehension for Diverse Readers." In *Handbook of Reading Research*, edited by E. B. Moje, P. P. Afflerbach, P. Enciso, and N. K. Lesaux, vol. V, 1st ed., 261–276. Routledge.

Anthony, J. L., E. J. Solari, J. M. Williams, et al. 2009. "Development of Bilingual Phonological Awareness in Spanish-Speaking English Language Learners: The Roles of Vocabulary, Letter Knowledge, and Prior Phonological Awareness." *Scientific Studies of Reading* 13, no. 6: 535–564.

Ascenzi-Moreno, L. 2024. "Toward a Multilingual Perspective on Reading: Aligning Emergent Bilinguals' Resources With Theories of Reading and Implications for Instruction." *Reading Teacher* 77, no. 6: 918–926.

Baker, S., N. Lesaux, M. Jayanthi, et al. 2014. "Teaching Academic Content and Literacy to English Learners in Elementary and Middle School. IES Practice Guide. NCEE 2014-4012. What Works Clearinghouse." http://eric.ed.gov/?id=ED544783.

Barr, C. D., P. Uccelli, and E. Phillips Galloway. 2019. "Specifying the Academic Language Skills That Support Text Understanding in the Middle Grades: The Design and Validation of the Core Academic Language Skills Construct and Instrument." *Language Learning* 69, no. 4: 978–1021.

Baumann, J. F., and M. F. Graves. 2010. "What Is Academic Vocabulary?" *Journal of Adolescent & Adult Literacy* 54, no. 1: 4.

Bialystok, E. 2007. "Acquisition of Literacy in Bilingual Children: A Framework for Research." *Language Learning* 57, no. s1: 45–77.

Bialystok, E., S. Majumder, and M. M. Martin. 2003. "Developing Phonological Awareness: Is There a Bilingual Advantage?" *Applied PsychoLinguistics* 24, no. 1: 27–44.

Bialystok, E., and M. M. Martin. 2004. "Attention and Inhibition in Bilingual Children: Evidence From the Dimensional Change Card Sort Task." *Developmental Science* 7, no. 3: 325–339.

Bialystok, E., C. McBride-Chang, and G. Luk. 2005. "Bilingualism, Language Proficiency, and Learning to Read in Two Writing Systems." *Journal of Educational Psychology* 97, no. 4: 580–590.

Brady, A. C., M. M. Griffin, A. R. Lewis, C. J. Fong, and D. H. Robinson. 2023. "How Scientific Is Educational Psychology Research? The Increasing Trend of Squeezing Causality and Recommendations From Non-Intervention Studies." *Educational Psychology Review* 35, no. 1: 37.

Branum-Martin, L., S. Tao, and S. Garnaat. 2015. "Bilingual Phonological Awareness: Reexamining the Evidence for Relations Within and Across Languages." *Journal of Educational Psychology* 107, no. 1: 111–125.

Cain, K., and H. M. Nash. 2011. "The Influence of Connectives on Young Readers' Processing and Comprehension of Text." *Journal of Educational Psychology* 103, no. 2: 429.

Calderón, M., R. Slavin, and M. Sánchez. 2011. "Effective Instruction for English Learners." *Future of Children* 21, no. 1: 103–127.

Callahan, R. M., and D. Shifrer. 2016. "Equitable Access for Secondary English Learner Students: Course Taking as Evidence of EL Program Effectiveness." *Educational Administration Quarterly* 52, no. 3: 463–496.

Cano, J., and N. T. Ruiz. 2020. ""Wait! I Don't Get It! Can We Translate?": Explicit Collaborative Translation to Support Emergent Bilinguals' Reading Comprehension in the Intermediate Grades." *Bilingual Research Journal* 43, no. 2: 157–177.

Carlisle, J. F. 1995. "Morphological Awareness and Early Reading Achievement." In *Morphological Aspects of Language Processing*, edited by L. B. Feldman, 189–209. Lawrence Erlbaum.

Carlson, D., and J. E. Knowles. 2016. "The Effect of English Language Learner Reclassification on Student ACT Scores, High School Graduation, and Postsecondary Enrollment: Regression Discontinuity Evidence from Wisconsin." *Journal of Policy Analysis and Management* 35, no. 3: 559–586.

Cartledge, G., S. Keesey, J. G. Bennett, R. Ramnath, and M. R. Council. 2016. "Culturally Relevant Literature: What Matters Most to Primary-Age Urban Learners." *Reading & Writing Quarterly* 32, no. 5: 399–426.

Cartwright, N. 1999. *The Dappled World: A Study of the Boundaries of Science*. Cambridge University Press.

Cervetti, G. N., P. D. Pearson, A. S. Palincsar, et al. 2020. "How the Reading for Understanding Initiative's Research Complicates the Simple View of Reading Invoked in the Science of Reading." *Reading Research Quarterly* 55: S161–S172.

Cervetti, G. N., and T. S. Wright. 2020. "The Role of Knowledge in Understanding and Learning From Text." In *Handbook of Reading Research*, vol. V, 237–260. Routledge.

Chen, X., R. C. Anderson, W. Li, M. Hao, X. Wu, and H. Shu. 2004. "Phonological Awareness of Bilingual and Monolingual Chinese Children." *Journal of Educational Psychology* 96, no. 1: 142–151.

Choi, W., X. Tong, K. K. S. Law, et al. 2018. "Within- and Cross-Language Contributions of Morphological Awareness to Word Reading Development in Chinese–English Bilingual Children." *Reading and Writing* 31: 1787–1820.

Chung, S. C., X. Chen, and E. Geva. 2019. "Deconstructing and Reconstructing Cross-Language Transfer in Bilingual Reading Development: An Interactive Framework." *Journal of Neurolinguistics* 50: 149–161.

Cole, M. W., K. Puzio, C. S. Keyes, R. T. Jiménez, L. Pray, and S. David. 2012. "Contesting Language Orientations: A Critical Multicultural Perspective on Local Language Policy in Two Middle Schools." *Middle Grades Research Journal* 7, no. 2: 129.

Coleman, T. 2024. *Spelling Out Why the "Science of Reading" Movement Is Winning the Reading Wars*. Week. https://theweek.com/education/science-of-reading-battle.

Corrin, W., P. Zhu, M. Shih, et al. 2022. *The Effects of an Academic Language Program on Student Reading Outcomes. NCEE 2022-007a*. National Center for Education Evaluation and Regional Assistance.

Crosson, A. C., M. J. Kieffer, M. G. McKeown, and W. Nagy. 2025. "Cross-Language Morphological Analysis Improves Academic Word Learning for Multilingual Adolescents." *Scientific Studies of Reading* 29, no. 1: 55–84.

Crosson, A. C., and N. K. Lesaux. 2013. "Does Knowledge of Connectives Play a Unique Role in the Reading Comprehension of English Learners

and English-Only Students?" *Journal of Research in Reading* 36, no. 3: 241–260.

Cummins, J. 1979. "Linguistic Interdependence and the Educational Development of Bilingual Children." *Review of Educational Research* 49, no. 2: 222–251.

David, S. 2024. "Escíbalo en Tu Own Words, Güey." In *Heteroglossia and Language Play in Multilingual Speech: Pedagogical and Theoretical Implications*, edited by D. LaScotte and E. Tarone, 67–90. De Gruyter Mouton.

David, S. S., and M. W. Cole. 2021. "Jostling Isaac: Dynamic Configurations of Bodies and Objects During a Language Problem Solving Event." *Classroom Discourse* 12, no. 1–2: 101–120.

Dewaele, J.-M. 2001. "Activation or Inhibition? The Interaction of L1, L2 and L3 on the Language Mode Continuum." *Bilingual Education and Bilingualism* 31: 69–89.

Diazgranados, S., R. Selman, and M. Dionne. 2016. "Acts of Social Perspective Taking: A Functional Construct and the Validation of a Performance Measure for Early Adolescents." *Social Development* 25, no. 3: 572–601.

Dickinson, D. K., A. McCabe, N. Clark-Chiarelli, and A. Wolf. 2004. "Cross-Language Transfer of Phonological Awareness in Low-Income Spanish and English Bilingual Preschool Children." *Applied Psycholinguistics* 25, no. 3: 323–347.

Dijkstra, T., and W. J. van Heuven. 2002. "Modeling Bilingual Word Recognition: Past, Present and Future." *Bilingualism: Language and Cognition* 5, no. 3: 219–224.

Dinsmore, D. L., and P. A. Alexander. 2016. "A Multidimensional Investigation of Deep-Level and Surface-Level Processing." *Journal of Experimental Education* 84, no. 2: 213–244.

Donegan, R. E., and J. Wanzek. 2021. "Effects of Reading Interventions Implemented for Upper Elementary Struggling Readers: A Look at Recent Research." *Reading and Writing* 34, no. 8: 1943–1977.

Dorner, L. M., M. F. Orellana, and R. Jiménez. 2008. ""It's One of Those Things That You Do to Help the Family" Language Brokering and the Development of Immigrant Adolescents." *Journal of Adolescent Research* 23, no. 5: 515–543.

Duke, N. K., and K. B. Cartwright. 2021. "The Science of Reading Progresses: Communicating Advances Beyond the Simple View of Reading." *Reading Research Quarterly* 56: S25–S44.

Duke, N. K., A. E. Ward, and P. D. Pearson. 2021. "The Science of Reading Comprehension Instruction." *Reading Teacher* 74, no. 6: 663–672.

Duncan, L. G., S. Casalis, and P. Colé. 2009. "Early Metalinguistic Awareness of Derivational Morphology: Observations From a Comparison of English and French." *Applied PsychoLinguistics* 30, no. 3: 405–440.

Durgunoğlu, A. Y., M. Mir, and S. Ariño-Marti. 2002. "The Relationships Between Bilingual Children's Reading and Writing in Their Two Languages." In *New Directions for Research in L2 Writing*, edited by S. Ransdell and M.-L. Barbier, vol. 11, 81–100. Springer.

Ehri, L. C., S. R. Nunes, D. M. Willows, B. V. Schuster, Z. Yaghoub-Zadeh, and T. Shanahan. 2001. "Phonemic Awareness Instruction Helps Children Learn to Read: Evidence From the National Reading Panel's Meta-Analysis." *Reading Research Quarterly* 36, no. 3: 250–287.

Esteban-Guitart, M., and L. C. Moll. 2014. "Funds of Identity: A New Concept Based on the Funds of Knowledge Approach." *Culture & Psychology* 20, no. 1: 31–48.

Francis, D. J., P. A. Kulesz, and J. S. Benoit. 2018. "Extending the Simple View of Reading to Account for Variation Within Readers and Across Texts: The Complete View of Reading (CVRi)." *Remedial and Special Education* 39, no. 5: 274–288.

Gabriel, R., and D. V. Dennis. 2025. "Introduction to the Special Issue: Science of Reading Policies." *Education Policy Analysis Archives* 33, no. 72: 1–6.

Gabriel, R., and F. López. 2024. "The Role of Asset-Based Pedagogy in an Interactive View of Reading." *Educational Psychologist* 59, no. 4: 233–249.

Gallagher, M. A., J. S. Beck, E. M. Ramirez, A. T. Barber, and M. M. Buehl. 2023. "Supporting Multilingual Learners' Reading Competence: A Multiple Case Study of Teachers' Instruction and Student Learning and Motivation." *Frontiers in Education* 8: 1–15.

García, O., and L. Wei. 2015. "Translanguaging, Bilingualism, and Bilingual Education." In *The Handbook of Bilingual and Multilingual Education*, edited by W. E. Wright, S. Boun, and O. García, 1st ed. John Wiley & Sons.

Garcia-Coll, C., K. Crnic, G. Lamberty, et al. 1996. "An Integrative Model for the Study of Developmental Competencies in Minority Children." *Child Development* 67, no. 5: 1891–1914.

Gee, J. P. 2001. "Reading as Situated Language: A Sociocognitive Perspective." *Journal of Adolescent & Adult Literacy* 44, no. 8: 714.

Genesee, F., I. Boivin, and E. Nicoladis. 1996. "Talking With Strangers: A Study of Bilingual Children's Communicative Competence." *Applied PsychoLinguistics* 17, no. 4: 427–442.

Genesee, F., E. Geva, C. Dressler, and M. Kamil. 2006. "Synthesis: Cross-Linguistic Relationships." In *Developing Literacy in Second-Language Learners: Report of the National Literacy Panel on Language-Minority Children and Youth*, edited by D. August and T. Shanahan, 153–174. Lawrence Erlbaum Associates.

Goldenberg, C. 2020. "Reading Wars, Reading Science, and English Learners." *Reading Research Quarterly* 55: S131–S144.

Goldman, S. R., and C. E. Snow. 2015. "Adolescent Literacy." In *The Oxford Handbook of Reading*, edited by A. Pollatsek and R. Treiman. Oxford University Press.

Goodwin, A. P., A. C. Huggins, M. S. Carlo, D. August, and M. Calderon. 2013. "Minding Morphology: How Morphological Awareness Relates to Reading for English Language Learners." *Reading and Writing* 26, no. 9: 1387–1415.

Goodwin, A. P., and R. Jiménez. 2016. "TRANSLATE: New Strategic Approaches for English Learners." *Reading Teacher* 69, no. 6: 621–625.

Gottardo, A., N. Amin, A. Amin, R. Al-Janaideh, X. Chen, and J. Paradis. 2020. "Word Reading in English and Arabic in Children Who Are Syrian Refugees." *Applied PsychoLinguistics* 41, no. 6: 1305–1328.

Gottardo, A., X. Chen, and M. R. Y. Huo. 2021. "Understanding Within- and Cross-Language Relations Among Language, Preliteracy Skills, and Word Reading in Bilingual Learners: Evidence From the Science of Reading." *Reading Research Quarterly* 56, no. S1: S371–S390.

Grosjean, F. 1989. "Neurolinguists, Beware! The Bilingual Is Not Two Monolinguals in One Person." *Brain and Language* 36, no. 1: 3–15.

Hartsuiker, R. J., and S. Bernolet. 2017. "The Development of Shared Syntax in Second Language Learning." *Bilingualism: Language and Cognition* 20, no. 2: 219–234.

Hattan, C., P. A. Alexander, and S. M. Lupo. 2024. "Leveraging What Students Know to Make Sense of Texts: What the Research Says About Prior Knowledge Activation." *Review of Educational Research* 94, no. 1: 73–111.

Hattan, C., and P. Kendeou. 2024. "Expanding the Science of Reading: Contributions From Educational Psychology." *Educational Psychologist* 59, no. 4: 217–232.

Hattan, C., and S. M. Lupo. 2020. "Rethinking the Role of Knowledge in the Literacy Classroom." *Reading Research Quarterly* 55, no. S1: S283–S298.

Hoffmeister, R., J. Henner, C. Caldwell-Harris, and R. Novogrodsky. 2022. "Deaf Children's ASL Vocabulary and ASL Syntax Knowledge Supports English Knowledge." *Journal of Deaf Studies and Deaf Education* 27, no. 1: 37–47.

Hollingsworth, H. 2023. *Why More U.S. Schools Are Embracing a New "Science of Reading"*. PBS News. https://www.pbs.org/newshour/education/why-more-u-s-schools-are-embracing-a-new-science-of-reading.

Hoover, W. A., and P. B. Gough. 1990. "The Simple View of Reading." *Reading and Writing* 2, no. 2: 127–160.

Hopkins, M., K. D. Thompson, R. Linquanti, K. Hakuta, and D. August. 2013. "Fully Accounting for English Learner Performance: A Key Issue in ESEA Reauthorization." *Educational Researcher* 42, no. 2: 101–108.

Hsin, L. 2014. *Integrated Bilingual Grammatical Architecture: Insights From Syntactic Development*. Johns Hopkins University.

Hsin, L., and C. Snow. 2017. "Social Perspective Taking: A Benefit of Bilingualism in Academic Writing." *Reading and Writing* 30, no. 6: 1193–1214. https://doi.org/10.1007/s11145-016-9718-9.

Hsin, L. B., E. Phillips Galloway, and C. E. Snow. 2024. "Supporting Social Strengths Amid Emerging Bilingualism: Effects of Word Generation on Social Perspective Taking in English Learners' Writing." *International Journal of Bilingual Education and Bilingualism* 27, no. 6: 854–869.

Hsu, L. S. J., K. I. Ip, M. M. Arredondo, T. Tardif, and I. Kovelman. 2019. "Simultaneous Acquisition of English and Chinese Impacts Children's Reliance on Vocabulary, Morphological and Phonological Awareness for Reading in English." *International Journal of Bilingual Education and Bilingualism* 22, no. 2: 207–223.

Huang, R., E. R. Baker, and T. Wang. 2023. "Early Bilingualism Enhances Theory of Mind in Children From Low-Income Households via Executive Function Skills." *Cognitive Development* 68, no. 101: 389.

Jiménez, R. T. 1997. "The Strategic Reading Abilities and Potential of Five Low-Literacy Latina/o Readers in Middle School." *Reading Research Quarterly* 32, no. 3: 224–243.

Jiménez, R. T., S. David, K. Fagan, et al. 2015. "Using Translation to Drive Conceptual Development for Students Becoming Literate in English as an Additional Language." *Research in the Teaching of English* 49, no. 3: 248–271.

Jiménez, R. T., G. E. García, and P. D. Pearson. 1996. "The Reading Strategies of Bilingual Latina/o Students Who Are Successful English Readers: Opportunities and Obstacles." *Reading Research Quarterly* 31, no. 1: 90–112.

Johnson, A. 2019. "The Effects of English Learner Classification on High School Graduation and College Attendance." *AERA Open* 5, no. 2: 1–23.

Jones, S. M., M. LaRusso, J. Kim, et al. 2019. "Experimental Effects of Word Generation on Vocabulary, Academic Language, Perspective Taking, and Reading Comprehension in High-Poverty Schools." *Journal of Research on Educational Effectiveness* 12, no. 3: 448–483.

Joyce, K. E., and N. Cartwright. 2020. "Bridging the Gap Between Research and Practice: Predicting What Will Work Locally." *American Educational Research Journal* 57, no. 3: 1045–1082.

Kieffer, M. J., and N. K. Lesaux. 2012. "Development of Morphological Awareness and Vocabulary Knowledge in Spanish-Speaking Language Minority Learners: A Parallel Process Latent Growth Curve Model." *Applied PsychoLinguistics* 33, no. 1: 23–54.

Kieffer, M. J., and K. D. Thompson. 2018. "Hidden Progress of Multilingual Students on NAEP." *Educational Researcher* 47, no. 6: 391–398.

Kim, H. Y., L. B. Hsin, and C. E. Snow. 2018. "Reducing Academic Inequalities for English Language Learners: Variation in Experimental Effects of Word Generation in High-Poverty Schools." *International Journal of Bilingual Education and Bilingualism* 24, no. 7: 1024–1042.

Kim, H. Y., M. D. LaRusso, L. B. Hsin, A. G. Harbaugh, R. L. Selman, and C. E. Snow. 2018. "Social Perspective-Taking Performance: Construct, Measurement, and Relations With Academic Performance and Engagement." *Journal of Applied Developmental Psychology* 57: 24–41.

Kintsch, W. 1998. *Comprehension: A Paradigm for Cognition*. Cambridge University Press.

Kittle, J. M., S. J. Amendum, and C. M. Budde. 2024. "What Does Research Say About the Science of Reading for K-5 Multilingual Learners? A Systematic Review of Systematic Reviews." *Educational Psychology Review* 36, no. 4: 108.

Kuo, L.-J., and R. C. Anderson. 2010. "Beyond Cross-Language Transfer: Reconceptualizing the Impact of Early Bilingualism on Phonological Awareness." *Scientific Studies of Reading* 14, no. 4: 365–385.

Kurtz, H., S. Lloyd, A. Harwin, V. Chen, and Y. Furuya. 2020. *Early Reading Instruction: Results of a National Survey of K-2 and Elementary Special Education Teachers and Postsecondary Instructors*. EdWeek Research Center / Editorial Projects in Education Report No. ED603183.

Ladefoged, P. 2001. "Vowels and Consonants." *Phonetica* 58, no. 3: 211–212.

Ladson-Billings, G. 1995. "Toward a Theory of Culturally Relevant Pedagogy." *American Educational Research Journal* 32, no. 3: 465–491.

Ladson-Billings, G. 2014. "Culturally Relevant Pedagogy 2.0: Aka the Remix." *Harvard Educational Review* 84, no. 1: 74–84.

Langer, J. A. 1987. "A Sociocognitive Perspective on Literacy." In *Language, Literacy, and Culture: Issues of Society and Schooling*, edited by J. A. Langer, 1–20. Ablex.

LaRusso, M., H. Y. Kim, R. Selman, et al. 2016. "Contributions of Academic Language, Perspective Taking, and Complex Reasoning to Deep Reading Comprehension." *Journal of Research on Educational Effectiveness* 9, no. 2: 201–222.

Lawrence, J. F., L. Capotosto, L. Branum-Martin, C. White, and C. E. Snow. 2012. "Language Proficiency, Home-Language Status, and English Vocabulary Development: A Longitudinal Follow-Up of the Word Generation Program." *Bilingualism: Language and Cognition* 15, no. 3: 437–451.

Lawrence, J. F., E. Phillips Galloway, and J. Y. L. Hsu. 2025. "Estimating the Effect of Structured Vocabulary Review: An Experimental Evaluation." *Elementary School Journal* 126, no. 1: 82–106.

Le, B., K. E. Black, C. Carlson, et al. 2024. "Ever English Learner 4-Year Graduation: Toward an Intersectional Approach." *Educational Researcher* 53, no. 6: 378–383.

Lesaux, N. K., E. P. Galloway, and S. H. Marietta. 2016. *Teaching Advanced Literacy Skills: A Guide for Leaders in Linguistically Diverse Schools*. Guilford Publications.

Lesaux, N. K., M. J. Kieffer, S. E. Faller, and J. G. Kelley. 2010. "The Effectiveness and Ease of Implementation of an Academic Vocabulary Intervention for Linguistically Diverse Students in Urban Middle Schools." *Reading Research Quarterly* 45, no. 2: 196–228.

List, A., G. S. Campos Oaxaca, H. Du, H. Y. Lee, and B. Lyu. 2023. "Critical Culturalized Comprehension: Exploring Culture as Learners Thinking About Texts." *Educational Psychologist* 59, no. 1: 1–19.

López, F. A. 2017. "Altering the Trajectory of the Self-Fulfilling Prophecy: Asset-Based Pedagogy and Classroom Dynamics." *Journal of Teacher Education* 68, no. 2: 193–212.

Marian, V., A. Shook, and S. R. Schroeder. 2013. "Bilingual Two-Way Immersion Programs Benefit Academic Achievement." *Bilingual Research Journal* 36, no. 2: 167–186.

Matuchniak, T., C. B. Olson, and R. Scarcella. 2014. "Examining the Text-Based, On-Demand, Analytical Writing of Mainstreamed Latino English Learners in a Randomized Field Trial of the Pathway Project Intervention." *Reading and Writing* 27, no. 6: 973–994.

McBride-Chang, C., J. R. Cho, H. Liu, et al. 2005. "Changing Models Across Cultures: Associations of Phonological Awareness and Morphological Structure Awareness With Vocabulary and Word Recognition in Second Graders From Beijing, Hong Kong, Korea, and the United States." *Journal of Experimental Child Psychology* 92, no. 2: 140–160.

McCarthy, K. S., and D. S. McNamara. 2021. "The Multidimensional Knowledge in Text Comprehension Framework." *Educational Psychologist* 56, no. 3: 196–214.

McNamara, D. S. 2020. "If Integration Is the Keystone of Comprehension: Inferencing Is the Key." *Discourse Processes* 58: 86–91.

McNamara, D. S., E. Kintsch, N. B. Songer, and W. Kintsch. 1996. "Are Good Texts Always Better? Interactions of Text Coherence, Background Knowledge, and Levels of Understanding in Learning From Text." *Cognition and Instruction* 14, no. 1: 1–43.

McNamara, D. S., Y. Ozuru, and R. G. Floyd. 2011. "Comprehension Challenges in the Fourth Grade: The Roles of Text Cohesion, Text Genre, and Readers' Prior Knowledge." *International Electronic Journal of Elementary Education* 4, no. 1: 229–257.

Melby-Lervåg, M., and A. Lervåg. 2011. "Cross-Linguistic Transfer of Oral Language, Decoding, Phonological Awareness and Reading Comprehension: A Meta-Analysis of the Correlational Evidence." *Journal of Research in Reading* 34, no. 1: 114–135.

Melzi, G., A. R. Schick, and L. Scarola. 2019. "Literacy Interventions that Promote Home-to-School Links for Ethnoculturally Diverse Families of Young Children." In *Ethnocultural Diversity and the Home-to-School Link*, edited by C. M. McWayne, F. Doucet, S. M. Sheridan, G. Melzi, A. Schick, and L. Scarola, 123–143.

Moll, L. C. 1988. "Some Key Issues in Teaching Latino Students." *Language Arts* 65, no. 5: 465–472.

Moll, L. C. 1992. "Bilingual Classroom Studies and Community Analysis: Some Recent Trends." *Educational Researcher* 21, no. 2: 20–24.

Moll, L. C. 2019. "Elaborating Funds of Knowledge: Community-Oriented Practices in International Contexts." *Literacy Research: Theory, Method, and Practice* 68, no. 1: 130–138.

Moll, L. C., S. Soto-Santiago, and L. Schwartz. 2013. "Funds of Knowledge in Changing Communities." In *The Wiley Blackwell International Handbook of Research on Children's Literacy, Learning and Culture*, edited by K. Hall, T. Cremin, B. Comber, and L. C. Moll, 172–183. Wiley Blackwell.

National Center for Education Statistics (NCES). 2025. *National Assessment of Educational Progress (NAEP)*. Reading Assessment.

National Governors Association Center (NGAC) for Best Practices & Council of Chief State School Officers & others. 2010. *Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects*. CCSSO Council of Chief State School Officers.

Neuman, S. B., E. Quintero, and K. Reist. 2023. *Reading Reform Across America: A Survey of State Legislation*. Albert Shanker Institute.

Oakhill, J., K. Cain, and C. Elbro. 2014. *Understanding and Teaching Reading Comprehension: A Handbook*. Routledge.

Oakhill, J. V., and K. Cain. 2012. "The Precursors of Reading Ability in Young Readers: Evidence From a Four-Year Longitudinal Study." *Scientific Studies of Reading* 16, no. 2: 91–121.

O'Brien, E. J., and A. E. Cook. 2015. "Models of Discourse Comprehension." In *The Oxford Handbook of Reading*, edited by A. Pollatsek and R. Treiman, 217–231. Oxford University Press.

O'Hallaron, C. L. 2014. "Supporting Fifth-Grade ELLs' Argumentative Writing Development." *Written Communication* 31, no. 3: 304–331.

Olson, C. B., T. Matuchniak, H. Q. Chung, R. Stumpf, and G. Farkas. 2016. "Reducing Achievement Gaps in Academic Writing for Latinos and English Learners in Grades 7–12." *Journal of Educational Psychology* 109, no. 1: 1–21.

Olson, D. R. 2013. "Literacy and the Languages of Rationality." *Pragmatics & Cognition* 21, no. 3: 431–447.

Ordóñez, C. L., M. S. Carlo, C. E. Snow, and B. McLaughlin. 2002. "Depth and Breadth of Vocabulary in Two Languages: Which Vocabulary Skills Transfer?" *Journal of Educational Psychology* 94, no. 4: 719.

Paap, K. R., H. A. Johnson, and O. Sawi. 2016. "Should the Search for Bilingual Advantages in Executive Functioning Continue?" *Cortex* 74: 305–314.

Paradis, J., F. Genesee, and M. B. Crago. 2011. *Dual Language Development and Disorders: A Handbook on Bilingualism and Second Language Learning*. 2nd ed. Paul H. Brookes.

Pasquarella, A., X. Chen, K. Lam, Y. C. Luo, and G. Ramirez. 2011. "Cross-Language Transfer of Morphological Awareness in Chinese–English Bilinguals." *Journal of Research in Reading* 34, no. 1: 23–42.

Pearson, P. D., A. Palincsar, G. Biancarosa, and A. Berman, eds. 2020. *Reaping the Rewards of the Reading for Understanding Initiative*. National Academy of Education.

Perez-Brena, N. J., D. Rivas-Drake, R. B. Toomey, and A. J. Umaña-Taylor. 2018. "Contributions of the Integrative Model for the Study of Developmental Competencies in Minority Children: What Have We Learned About Adaptive Culture?" *American Psychologist* 73, no. 6: 713–726.

Petscher, Y., S. Q. Cabell, H. W. Catts, et al. 2020. "How the Science of Reading Informs 21st-Century Education." *Reading Research Quarterly* 55: S267–S282.

Phillips Galloway, E., J. B. McClain, and P. Uccelli. 2020. "Broadening the Lens on the Science of Reading: A Multifaceted Perspective on the Role of Academic Language in Text Understanding." *Reading Research Quarterly* 55, no. S1: S331–S345.

Phillips Galloway, E., H. M. Meston, and G. Aguilar. 2022. "Teaching 'Register Overlap': A Proposal for a Translingual Pedagogy to Support Spanish and English Academic Register Learning." *TESOL Quarterly* 56, no. 2: 813–826.

Phillips Galloway, E., and P. Uccelli. 2019. "Examining Developmental Relations Between Core Academic Language Skills and Reading Comprehension for English Learners and Their Peers." *Journal of Educational Psychology* 111: 15.

Phillips Galloway, E., and P. Uccelli. 2024. "Promoting Humanizing, Meaningful, and Just Language Instruction for Multilingual Learners and Their Peers: A Pedagogical Vision Illustrated by Examples From Practice." *Linguistics and Education* 84, no. 101: 358.

Phillips Galloway, E., P. Uccelli, G. Aguilar, and C. D. Barr. 2020. "Exploring the Cross-Linguistic Contribution of Spanish and English Academic Language Skills to English Text Comprehension for Middle-Grade Dual Language Learners." *AERA Open* 6, no. 1: 2,332,858,419,892,575.

Porter, L., M. Vazquez Cano, and I. Umansky. 2023. *Bilingual Education and America's Future: Evidence and Pathways*. A Civil Rights Agenda for the Next Quarter Century.

Prevoo, M. J. L., M. Malda, J. Mesman, and M. H. van IJzendoorn. 2016. "Within- and Cross-Language Relations Between Oral Language Proficiency and School Outcomes in Bilingual Children With an Immigrant Background: A Meta-Analytical Study." *Review of Educational Research* 86, no. 1: 237–276.

Proctor, C. P., D. August, M. S. Carlo, and C. Snow. 2006. "The Intriguing Role of Spanish Language Vocabulary Knowledge in Predicting English Reading Comprehension." *Journal of Educational Psychology* 98, no. 1: 159.

Proctor, C. P., M. Carlo, D. August, and C. Snow. 2005. "Native Spanish-Speaking Children Reading in English: Toward a Model of Comprehension." *Journal of Educational Psychology* 97, no. 2: 246–256.

Proctor, C. P., and E. Mo. 2009. "The Relationship Between Cognate Awareness and English Comprehension Among Spanish–English Bilingual Fourth Grade Students." *TESOL Quarterly* 43, no. 1: 126–136.

Proctor, C. P., R. D. Silverman, J. R. Harring, R. L. Jones, and A. M. Hartranft. 2020. "Teaching Bilingual Learners: Effects of a Language-Based Reading Intervention on Academic Language and Reading Comprehension in Grades 4 and 5." *Reading Research Quarterly* 55, no. 1: 95–122.

Proctor, C. P., R. D. Silverman, J. R. Harring, and C. Montecillo. 2012. "The Role of Vocabulary Depth in Predicting Reading Comprehension Among English Monolingual and Spanish–English Bilingual Children in Elementary School." *Reading and Writing* 25: 1635–1664.

Ramirez, G., X. Chen, E. Geva, and H. Kiefer. 2010. "Morphological Awareness in Spanish-Speaking English Language Learners: Within and Cross-Language Effects on Word Reading." *Reading and Writing* 23: 337–358.

Raynolds, L. B., A. López-velásquez, and L. E. Olivo Valentín. 2017. "Exploring English and Spanish Rhyme Awareness and Beginning Sound Segmentation Skills in Prekindergarten Spanish-Speaking English Learners." *Reading and Writing* 30, no. 4: 719–737.

Saunders, W. M., and D. J. Marcelletti. 2013. "The Gap That Can't Go Away: The Catch-22 of Reclassification in Monitoring the Progress of English Learners." *Educational Evaluation and Policy Analysis* 35, no. 2: 139–156.

Schleppegrell, M. J. 2004. *The Language of Schooling: A Functional Linguistics Perspective*. Routledge.

Schleppegrell, M. J., and C. L. O'Hallaron. 2011. "Teaching Academic Language in L2 Secondary Settings." *Annual Review of Applied Linguistics* 31: 3–18.

Schwartz, S. 2025. *How the 'Science of Reading' Can Support English Learners*. Education Week. https://www.edweek.org/teaching-learning/how-the-science-of-reading-can-support-english-learners/2025/09.

Selman, R. L. 2003. *The Promotion of Social Awareness: Powerful Lessons From the Partnership of Developmental Theory and Classroom Practice*. Russell Sage Foundation.

Serratrice, L. 2022. "What Can Syntactic Priming Tell Us About Crosslinguistic Influence?" In *Syntactic Priming in Language Acquisition: Representations, Mechanisms and Applications*, edited by K. Messenger, 129–156. John Benjamins.

Shepard-Carey, L. J., and C. S. Mathieu. 2022. "Technology and Translanguaging: Examining the Roles of iPads in Collaborative Translation Activities With Young Emergent Bilinguals." In *New Perspectives on Material Mediation in Language Learner Pedagogy*, 189–204. Springer International Publishing.

Sierens, S., S. Slembrouck, K. van Gorp, O. Agirdag, and P. van Avermaet. 2019. "Linguistic Interdependence of Receptive Vocabulary Skills in Emergent Bilingual Preschool Children: Exploring a Factor-Dependent Approach." *Applied Psycholinguistics* 40, no. 5: 1269–1297.

Sierens, S., K. van Gorp, S. Slembrouck, and P. van Avermaet. 2021. "The Strength of Cross-Language Interdependence for Listening Comprehension Proficiency in Turkish–Dutch Emergent Bilinguals: Testing Three Hypotheses." *Language Learning* 71, no. 2: 453–486.

Silverman, R. D., C. P. Proctor, J. R. Harring, et al. 2021. "The Effect of a Language and Literacy Intervention on Upper Elementary Bilingual Students' Argument Writing." *Elementary School Journal* 122, no. 2: 208–232.

Siu, C. T.-S., and C. S.-H. Ho. 2015. "Cross-Language Transfer of Syntactic Skills and Reading Comprehension Among Young Cantonese–English Bilingual Students." *Reading Research Quarterly* 50, no. 3: 313–336.

Smith, L. B., and E. Thelen. 2003. "Development as a Dynamic System." *Trends in Cognitive Sciences* 7, no. 8: 343–348.

Snow, C. E. 2002. *With Science and Technology Policy Institute (Rand Corporation) & United States*. Toward an R&D program in reading comprehension. RAND Corporation.

Snow, C. E., J. F. Lawrence, and C. White. 2009. "Generating Knowledge of Academic Language Among Urban Middle School Students." *Journal of Research on Educational Effectiveness* 2, no. 4: 325–344.

Snow, C. E., and P. Uccelli. 2009. "The Challenge of Academic Language." In *The Cambridge Handbook of Literacy*, edited by D. R. Olson and N. Torrance, 112–133. Cambridge University Press.

Spencer, M., J. M. Quinn, and R. K. Wagner. 2017. "Vocabulary, Morphology, and Reading Comprehension." In *Theories of Reading Development*, edited by K. Cain, D. L. Compton, and R. K. Parrila, 239–256. John Benjamins Publishing Company.

Steele, J. L., R. O. Slater, G. Zamarro, et al. 2017. "Effects of Dual-Language Immersion Programs on Student Achievement." *American Educational Research Journal* 54, no. 1_suppl: 282S–306S.

Sun, X., K. Zhang, R. A. Marks, et al. 2022. "What's in a Word? Cross-Linguistic Influences on Spanish–English and Chinese–English Bilingual Children's Word Reading Development." *Child Development* 93, no. 1: 84–100.

Taboada Barber, A., S. Lutz-Klauda, M. Cruz, and J. Kelly. 2022. "17 Theory of Mind: A Missing Piece in Understanding Emergent Bilinguals' Comprehension of Multimodal Narrative Texts." In *Multimodal Literacies in Young Emergent Bilinguals*, edited by S. Brown and L. Hao, 224–236. Multilingual Matters.

The Reading League & National Committee for Effective Literacy. 2023. Understanding the Difference: The Science of Reading and Implementation for English Learners/Emergent Bilinguals (Joint Statement). https://www.thereadingleague.org/compass/english-learners-emergent-bilinguals-and-the-science-of-reading/joint-statement/.

Thompson, K. D. 2015. "English Learners' Time to Reclassification." *Educational Policy* 31, no. 3: 330–363.

Tierney, R. J., and P. D. Pearson. 2021. *A History of Literacy Education: Waves of Research and Practice*. Teachers College Press.

Tierney, R. J., and P. D. Pearson. 2024. *Fact-Checking the Science of Reading: Opening Up the Conversation*. Literacy Research Commons.

Tompkins, V., D. E. Montgomery, R. A. Dore, and B. K. Lee. 2024. Theory of Mind and Text.

Tong, X., and C. McBride-Chang. 2010. "Chinese-English Biscriptal Reading: Cognitive Component Skills Across Orthographies." *Reading and Writing* 23: 293–310.

Truckenmiller, A. J., J. Park, A. Dabo, and Y.-C. Wu Newton. 2019. "Academic Language Instruction for Students in Grades 4 Through 8: A Literature Synthesis." *Journal of Research on Educational Effectiveness* 12, no. 1: 135–159.

Tse, L. 1996. "Language Brokering in Linguistic Minority Communities: The Case of Chinese- and Vietnamese-American Students." *Bilingual Research Journal* 20, no. 3–4: 485–498.

Uccelli, P., E. P. Galloway, C. D. Barr, A. Meneses, and C. L. Dobbs. 2015. "Beyond Vocabulary: Exploring Cross-Disciplinary Academic-Language Proficiency and Its Association With Reading Comprehension." *Reading Research Quarterly* 50, no. 3: 337–356. https://doi.org/10.1002/rrq.104.

Unsworth, S. 2025. "Shared Syntax and Cross-Linguistic Influence in Bilingual Children: Evidence From Between- and Within-Language Priming." *Linguistic Approaches to Bilingualism* 15, no. 2: 117–151.

U.S. Census Bureau. 2023. "Most Americans Speak Only English at Home or Speak English "Very Well", CB23-208." https://www.census.gov/newsroom/press-releases/2023/language-at-home-acs-5-year.html.

Valentino, R. A., and S. F. Reardon. 2015. "Effectiveness of Four Instructional Programs Designed to Serve English Learners: Variation by Ethnicity and Initial English Proficiency." *Educational Evaluation and Policy Analysis* 37, no. 4: 612–637.

Vasilyeva, M., H. Waterfall, P. B. Gámez, L. E. Gómez, E. Bowers, and P. Shimpi. 2010. "Cross-Linguistic Syntactic Priming in Bilingual Children." *Journal of Child Language* 37, no. 5: 1047–1064.

Verhoeven, L. 2007. "Early Bilingualism, Language Transfer, and Phonological Awareness." *Applied PsychoLinguistics* 28, no. 3: 425–439.

Wang, H., Y. Zhao, H. Chen, X. Wu, P. Sun, and Y. Zhao. 2024. "Uncovering the Timing and Target: The Unique Longitudinal Contribution of Theory of Mind to Reading Comprehension Across Elementary School." *Journal of Educational Psychology* 116, no. 3: 346–362.

White, H., E. Phillips Galloway, and R. T. Jiménez. 2024. "Bridging Theory to Practice: Exploring the Role of an Educative Translingual Curriculum to Support Linguistically Diverse Classroom Practices." *TESOL Quarterly* 58, no. 2: 802–829.

Yu, C. L., I. Kovelman, and H. M. Wellman. 2021. "How Bilingualism Informs Theory of Mind Development." *Child Development Perspectives* 15, no. 3: 154–159.

Yu, L., and T. Odlin. 2015. *New Perspectives on Transfer in Second Language Learning*. Multilingual Matters.

Zaretsky, E., and M. Schwartz. 2016. *Cross-Linguistic Transfer in Reading in Multilingual Contexts*. John Benjamins Publishing Company.

Zhang, D., C.-F. Chin, and L. Li. 2017. "Metalinguistic Awareness in Bilingual Children's Word Reading: A Cross-Lagged Panel Study on Cross-Linguistic Transfer Facilitation." *Applied PsychoLinguistics* 38, no. 2: 395–426.

Zhang, H., and J. Lin. 2021. "Morphological Knowledge in Second Language Reading Comprehension: Examining Mediation Through Vocabulary Knowledge and Lexical Inference." *Educational Psychology* 41, no. 5: 563–581.

Zhang, J., T. J. Lin, Y. Liu, and W. E. Nagy. 2020. "Morphological Awareness and Reading Comprehension: Differential Mediation Mechanisms in Native English Speakers, Fluent English Learners, and Limited English Learners." *Journal of Experimental Child Psychology* 199, no. 104: 915.

Ziegler, J. C., and U. Goswami. 2005. "Reading Acquisition, Developmental Dyslexia, and Skilled Reading Across Languages: A Psycholinguistic Grain Size Theory." *Psychological Bulletin* 131, no. 1: 3–29.