Fourth-grade emergent bilinguals' uses of functional grammar analysis to talk about text

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ABSTRACT

While decades of research on reading comprehension strategy instruction has yielded significant insights into the effective use of comprehension strategies, less is known about how students—in particular students who are learning English as an additional language—can leverage their knowledge of *language* to make meaning with text. This descriptive case study provides insight into the ways talk about language, using a functional grammar, supports a group of fourth-grade emergent bilinguals. Students construct coherent mental representations of text by attending to linguistic features that they had learned to identify during the preceding school year, using a semantically-based linguistic metalanguage from systemic functional linguistics. Their connection of language forms and meanings in think-alouds and interviews suggests that functional grammar analysis holds promise as an instructional tool with which teachers can guide students' attention to the central meanings in text.

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1. Introduction

Recent studies suggest that emergent bilinguals'[1] literacy development is supported through explicit talk about meaning in the patterns of language they encounter across genres and disciplines (Fang & Schleppegrell, 2008; Fillmore & Snow, 2000; Turkan, de Oliveira, Lee, & Phelps, 2014). Coupling explicit attention to linguistic features in text with a meaning-based approach to reading comprehension instruction can provide emergent bilinguals with opportunities for understanding "how meaning is encoded linguistically" (Han & D'Angelo, 2009, p. 179).

Systemic Functional Linguistics, SFL, (Halliday & Matthiessen, 2004; Schleppegrell, 2004), a sociolinguistic theory that links language form with meaning, offers tools for creating instructional contexts for being explicit about language and meaning and increasing emergent bilinguals' access to academic language and

written discourse. Its meaning-based metalanguage helps readers recognize the particular language choices that shape a text. This study illustrates how fourth-grade emergent bilinguals use the metalanguage and the consciousness it engenders to construct understanding with an informational science text.

1.1. Emergent bilinguals' literacy and language development

Literacy scholars who study emergent bilinguals' literacy development call for greater attention to the linguistic demands of reading comprehension (Fillmore & Snow, 2000; Han & D'Angelo, 2009; Schleppegrell, 2010; Turkan et al., 2014). Reading comprehension requires the construction of a coherent mental representation of text, which is contingent upon a reader's ability to draw upon relevant background knowledge, and infer referential and causal/logical relations among text elements (Kintsch, 1986, 1998; Van den Broek & Kremer, 2000). When actively comprehending, readers store and retrieve information and decipher which content merits their attention (Van den Broek & Kremer, 2000). Successful readers determine what is important, attend to it, and remember it in order to make referential and causal/logical connections across a text.

From a linguistic perspective, readers must recognize meaning in the *language* of the text; in the words, clauses, and sentences.

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[1] We refer to the students in this study as "emergent bilinguals" to reflect an asset-based orientation to their development of English in addition to at least one other home language. Although beyond the scope of this study, the ways in which students' home languages impact text comprehension and influence the strategies they use to make meaning with text is an important area for future research.

Drawing upon data from six research syntheses regarding instruction with emergent bilinguals, Saunders and Goldenberg (2010) identified the importance of instruction that explicitly teaches the elements of English (including syntax, grammar, functions and conventions) and integrates explicit attention to language with meaningful communication. SFL theory supports such integration, as it recognizes language as a meaning-making resource through which three "metafunctions" are always simultaneously realized. SFL offers a complex theoretical model that describes language as multiple systems of interacting resources for meaning-making in social contexts (Eggins, 2004; Martin & Rose, 2007). Its *functional grammar* describes discourse systems associated with interpersonal, ideational, and textual metafunctions of language, offering metalinguistic terms that can be used to analyze and discuss text.

The emphasis on the connection between the functions and forms of language makes an SFL-inspired pedagogy a unique and promising way to approach literacy instruction for emergent bilinguals. Unlike other approaches to language instruction that focus on form through isolated, skills-based activities devoid of meaningful context or purpose, SFL-inspired instruction offers emergent bilinguals ways to closely analyze and discuss linguistic features of a text while maintaining a focus on the text's meanings (Symons, 2015). Such instruction promotes consciousness about language through attention to patterns in the way language presents meaning and how different choices in the language affect what is meant (Schleppegrell, 2013). Rather than trying to accommodate emergent bilinguals by simplifying text or lowering expectations for learning, practices which perpetuate decreased motivation and low performance on academic tasks (Harklau, 1994), *functional grammar analysis* can scaffold students' comprehension of challenging, grade-level texts.

Emergent bilinguals tend to outperform monolingual students on metalinguistic awareness tasks, as the development of two languages heightens their sensitivity to language (Menyuk & Brisk, 2005). Grabe (2009) has drawn attention to the need for second language readers to use metalinguistic knowledge to support comprehension. In the work reported here, we show how teachers can capitalize on emergent bilinguals' strengths to leverage their metalinguistic awareness in support of comprehension through instruction informed by functional grammar analysis (FGA). FGA can enable a shared discourse (Tharp & Gallimore, 1988) in the classroom, promoting talk about language while reading, with SFL metalanguage as a resource for meaning-making.

1.2. The research-base of SFL-inspired pedagogies for emergent bilinguals

Teachers and researchers have drawn upon SFL to conceptualize and investigate emergent bilinguals' in-and-out of school literacies and language development (Gebhard, Shin, & Seger, 2011; Martin, 2009), with much of this work focused on teaching written *genres* as staged, goal-oriented, social processes through which different communicative purposes are achieved (Christie & Derewianka, 2008; Gebhard, Chen, & Britton, 2014; Gebhard & Harman, 2011; Harman, 2013; Hyland, 2007; O'Halloran, 2014; Schleppegrell et al., 2014). This approach to teaching writing provides opportunities for multiple encounters with a text—each time for a slightly different purpose—through a process of building domain knowledge, reading models of the target genre, using metalanguage to deconstruct the models, and working toward writing that achieves the genre's purpose and form (Christie, 2012).

More recently, researchers in the U.S. have been examining how SFL-inspired reading instruction can support emergent bilinguals' comprehension and language development (e.g., Achugar &

Carpenter, 2012; O'Halloran, Palincsar, & Schleppegrell, 2015; Paugh & Moran, 2013; Schleppegrell, 2013; Symons, 2017). In this research, SFL-inspired metalanguage has been integrated into a curriculum that supports teachers in achieving content goals while using the metalanguage to bring explicit attention to language in the context of text-based discussions. This instructional approach helps emergent bilinguals learn to recognize linguistic patterns within and across texts and more easily navigate the demands of academic reading and writing.

1.3. Using think-alouds and interviews to examine emergent bilinguals' understanding of science text

While several studies have described the use of functional grammar in the classroom (as reviewed above), we are not aware of studies that have examined how students, whose teachers have used functional grammar in their literacy instruction, use the ways of thinking promoted through this instruction when navigating texts and constructing meaning independently. In this descriptive study (employing think-alouds and interviews), we examined how emergent bilinguals who had engaged in functional grammar analysis as a tool for comprehending text in classroom instruction interacted with a challenging science text and reflected on it. A current area of challenge for young emergent bilingual readers is the increasing use of informational science texts, which have particular linguistic features that can be challenging for these readers. Functional grammar analysis can give teachers and their students a metalanguage for talk about connections between form and meaning in science texts and make explicit the ways such texts present relationships among phenomena (Symons, 2015).

Thinking-aloud with informational text provides a window into the "active life of the reader" (Pressley & Afflerbach, 1995, p. 15). It calls upon a reader's prior knowledge of the world and of disciplinary content and makes visible a reader's response to the unique features and challenges of such texts (Moore & Scevak, 1997; Schellings, Aarnoutse, & van Leeuwe, 2006; VanSledright, 2002; Wolfe & Goldman, 2005). The think-aloud condition in the present study was designed to offer the reader opportunities to talk about a text without prompting. We followed the think-aloud interaction with questions about the students' knowledge of functional grammar to explore their explicit knowledge of the metalanguage they had learned and how they related it to the text they were reading.

Because our sample of students had been taught how to use functional grammar analysis as a tool for comprehension, we hypothesized that the students' think-alouds might indicate a leveraging of knowledge about functional grammar. Hence, our research question was: What is the evidence that elementary emergent bilinguals, taught to use functional grammar analysis, appropriate the tools of functional grammar analysis for meaning-making with text?

2. Methods

2.1. Participants and setting

The study took place in an urban U.S. public school that serves a predominantly Arabic-speaking community. Ninety percent of the students in the school qualify for free-and-reduced-cost lunch. In the 2012–2013 academic year, 23 teachers enacted a curriculum called *Language and Meaning,* informed by SFL and designed to give teachers support to engage students in functional grammar analysis for purposes of understanding a text's content and drawing on meaning from the text to construct arguments. The project had the goal of exploring the affordances of SFL theory and tools to support