Reading science: Using systemic functional linguistics to support critical language awareness☆

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ABSTRACT

In this article we report on initial steps in a potential pathway into developing critical language awareness in teachers and young children by introducing the notion of "author attitude" in science texts. We report on activities that helped teachers and students recognize that informational texts do, in fact, present authors' attitudes and perspectives, that this is accomplished through language choices, and that those choices put readers in dialog with an author, allowing readers to bring their own judgments to what they read. As we report on the reactions of elementary teachers and students and on their participation in activities exploring author attitude, we highlight lessons we learned that may inform others who are interested in supporting critical language awareness in science reading.

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Introduction

Literacy education for a vibrant democracy involves more than just learning to read and write, and reading involves much more than comprehension of words on a page. In learning to read, children also need to come to understand a text as a message constructed by an author who is in dialog with a reader, making choices about what to say and how to say it. In addition, they need to come to see themselves as participants in that dialog who can respond to the message, align themselves with it, or resist and speak back to it. That makes recognizing the voice of an author an important aspect of *critical literacy*, and makes *critical language awareness*, through focus on the language used to infuse that voice, an important part of developing critical literacy.

Authors' voices are present in texts across the curriculum. In the English language arts classroom, teachers and children are accustomed to having conversations about authors and language as they read the story texts of the primary school curriculum. They read about the lives of authors and think about the language choices authors make in constructing and developing characters. Often, while reading stories, children discuss vocabulary choices and learn about and look for literary devices such as similes and metaphors. But when it comes to reading informational texts, there is typically less discussion of the author as a person and the language choices an author makes. Since informational texts are now expected to assume a greater role in classrooms across disciplines (see the Common Core State Standards, National Governors Association Center for Best Practices & Council of Chief State School Officers [NGACBP & CCSSO], 2010), it is essential for children's literacy

development to help them understand that authors of informational texts, which are often viewed simply as repositories of facts, also present points of view, address the reader, and use language to shape the reader's response to what is read.

This article describes a context in which teachers and children in the elementary grades were introduced to the notion that authors of informational texts present "attitudes," and were engaged in exploration of the language resources used to do so. We report on: (1) the new understandings teachers developed about the ways authors of informational texts infuse perspectives and guide readers in learning, and (2) how children responded to activities that focused on the language resources that present these perspectives. We offer this work as an example of how initial steps toward the development of critical language awareness can be taken even in the early years of schooling, and of how children can be supported to recognize authorial voices and respond to those voices. We also discuss the challenges in this work, both for teachers and for children, and we urge researchers to continue to explore ways of supporting early steps toward critical language awareness in the context of reading informational texts.

Critical language awareness

Our work aims to support critical language awareness by engaging children in talk about text that enables them to think, discuss, and talk back to the texts and their authors, rather than read texts as information to be unquestioningly assimilated. We draw on Hasan's (1996) notion of *reflection literacy* to understand the goal of critical language awareness as preparing learners to *participate* in knowledge production, not just assimilate knowledge presented by others, so that all students can eventually contribute to the ongoing development of knowledge across disciplines. Developing the ability to participate in the production of knowledge calls for skills in inquiry and analysis, not just comprehension and repetition of what has been learned through reading. Hasan calls for pedagogical practices that question a text, asking whose point of view the writing represents, and that consider the different points of view a reader might have in response. The goal, in her view, is to develop in students a disposition to question knowledge instead of accepting it on the sole basis of the authority of the author and the text. She suggests that to be able to engage in pedagogic practices that develop such dispositions, teachers need to understand how language choices shape the ways knowledge is presented across subject areas.

One aspect of that understanding is learning to recognize the *dialogism* in texts and the social relationships that are constructed in contexts of literacy and talk about text. Bloome and Katz (1997) describe how texts create a social world and social roles for reader and writer. The way the reader is constructed by the writer's language choices "has implications for how much authority or power the reader is presumed to have to make her/his own interpretation of the text, to disagree with the text, to bring knowledge to the text, or to act in a manner different from that suggested by the explicit commands of the written text" (p. 207). Even when an author does not intrude explicitly in the text and speak to the reader, the absence of such a voice, for example, in informational texts that seem to be only about "facts," may establish the text as authoritative, especially when read by novices. But even when a text inscribes certain social relationships between readers and authors, readers can override these if teachers offer opportunities for critical responses to the texts being read. Bloome and Katz urge that teachers make the social position of text questioner (rather than mere receiver of knowledge) available to students as part of their regular literacy practices. This perspective is consistent with Luke and Freebody's *four resources model* that calls for literacy instruction to teach students to "critically analyze and transform texts by acting on knowledge that texts are not ideologically natural or neutral—that they represent particular points of views while silencing others and influence people's ideas—and that their designs and discourses can be critiqued and redesigned in novel and hybrid ways" (Luke & Freebody, 1999, n.p.). One way to support students to begin to engage in this kind of critical analysis is to teach them how to discern a point of view being presented by an author.

As points of view in texts are presented in language, we draw on systemic functional linguistics (SFL) theory and metalanguage to support explicit talk about language and meaning. Scholars have drawn on SFL theory to show how a focus on language in literacy instruction empowers students to develop critical views (e.g., Rothery, 1996), and to suggest ways that focus on language can support talk about meaning in text. French (2010), for example, reports on how 2nd and 6th grade children developed critical understanding through their reading of stories, learning to see stories as "crafted object[s]" (p. 224) by using the metalanguage of SFL to talk about an author's language choices (see also Gebhard & Harman, 2011). Hammond and Macken-Horarik (1999) point out that this critical literacy development does not have to wait for literacy to be fully established (if, indeed, literacy is ever fully established!). Instead, they argue that literacy instruction needs to support critical literacy development as children learn to read and write. To this end, our work is providing support for some beginning steps toward teachers' and young children's development of critical language awareness through explicit talk about authors' language choices in science, to put the author in focus as someone who speaks and can be spoken back to.

Supporting critical literacy development in science

The approach to reading informational texts we report on below was a new idea for many of the teachers in our project. The language of science and other informational texts often presents authors' perspectives in subtle ways, typically appearing authoritative and definitive in presenting information (e.g., Fang, 2005). The texts are often written in the third person in declarative sentences, with little overt expression of opinion or author attitude. Their authoritativeness