Why Fiction Does It Better

LAUREN ROLWING FOR THE CHRONICLE REVIEW

CONSIDER THIS
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STUDENTS with rich vocabularies do well in school and are better prepared for college. So it's not surprising that reformers of elementary and secondary education seek to identify reading material that improves children's vocabularies. What is surprising is the conceptual vacuum in which they conduct their search. To quote the literary scholars Peter J. Rabinowitz and Corinne Bancroft, recommendations for the study of English "language arts" developed by the Common Core State Standards Initiative lack "any significant theoretical grounding."

If you think this problem does not concern us in higher education, you are mistaken. In a couple of years, this will be our problem, but it will be too late for us to do anything about it. We have research at the intersection of cognitive science and literary studies that is directly relevant to the standards that many school districts are adopting now. Ignoring it will have a short-term negative impact on elementary-, middle- and high-school students (particularly those from low-income backgrounds) and a long-term negative impact on every discipline in higher education.

The Common Core initiative recommends focusing on the acquisition of "the academic vocabulary that pervades complex texts of all types." That means including more informational texts (like literary nonfiction) and less fiction in the curriculum.

Cognitive scientists and literary theorists have plenty to say on this subject. Cognitive science connects the acquisition of vocabulary to social cognition, or the development of *theory of mind*—a capacity to attribute mental states, including thoughts, beliefs, and desires, to oneself and other people.

According to the developmental psychologists Joan Peskin and Janet Wilde Astington, it's been shown that children attending schools in low-income neighborhoods "demonstrate substantial lags in their theory-of-mind understanding" and that at 6 years old they know only half the number of words as do children in higher socioeconomic groups. "Children whose parents do not provide a rich lexicon for distinguishing language about perceiving, thinking, and evaluating might make important gains from hearing and talking such talk in their everyday story reading," the researchers wrote in a 2004 study. "A rich vocabulary, more than any other measure, is related to school performance."

Cognitive science thus gives a concrete definition to what proponents of the Common Core standards are seeking for elementary and secondary students: what David Coleman, president of the College Board, calls "an underlying language of complexity." It's metacognition—thinking about thinking.

As Peskin and Astington explain, "In the intermediate and later school years, there is the developing understanding of high-level metalinguistic and metacognitive terms such as *infer, imply, predict, doubt, estimate, concede, assume*, and *confirm*—terms used in scientific and historical thinking." It's not incidental that the words chosen by Coleman to exemplify complex vocabulary—"*appearance, consequential*, and *deliberate*"—denote various aspects of metacognitive reasoning. Armed with this language of complexity, students indeed do better in school, and now we understand why.

Here's where it gets interesting—and brings us closer to the subject at hand: fiction. Peskin and Astington wanted to test "whether exposure to an explicit metalanguage [results] in a greater conceptual understanding of one's own and other people's beliefs." For their 2004 study, they rewrote kindergartners' picture books "so that the texts were rich in explicit metacognitive vocabulary, such as *think, know, remember, wonder, figure out*, and *guess*." They compared the children reading those books with a control group who received the same picture books but with no metacognitive vocabulary.

They found that "hearing numerous metacognitive terms in stories is less important than having to actively construct one's own mentalistic interpretations from illustrations and text that implicitly draw attention to mental states." Children introduced to explicit metacognitive terms did start using them more, but they used them incorrectly.

Those results support earlier studies, one of which found that "children exposed to more metacognitive terms of certainty *(think, know*, and *guess)* in a television show later displayed a poorer understanding of certainty distinctions than those exposed to episodes containing fewer of these terms." Two other studies, "which compared children whose teachers used more metacognitive vocabulary to those whose teachers used less, found superior performance on theory-of-mind tasks for children whose teachers used fewer metacognitive terms."

To explain such counterintuitive findings, Peskin and Astington suggest that "the teaching of information does not automatically lead to learning." What is required instead is a "constructive, effortful process where the learner actively reorganizes perceptions and makes inferences. … These inferences lead to an understanding that may be all the deeper because the children had to strive to infer meaning. Ironically, the more direct, explicit condition may have produced less conceptual development precisely because it was explicit."

WHAT DO Peskin and Astington recommend for fostering constructive learning? Reading fiction. "Dramatic tension in stories is created when the various characters have disparate knowledge with regard to the action. This may be through error: The reader knows that Romeo does not know that Juliet lies drugged, not dead. Or it may be through deception: Pretending his assigned chore is an adventure, Tom Sawyer tricks his friends into whitewashing the fence."

Here cognitive science joins forces with literary theory. Peskin and Astington's research goes to the heart of the old intuition that reading fiction is "good for you," defining "good" now specifically in terms of stronger academic performance across the board.

It turns out that informational texts don't come close to containing the kind of metacognitive complexity so essential to fiction that we don't even notice it. Consider these two inextricable features of fiction. It always functions on a higher level of metacognitive complexity than nonfiction, and it can achieve that higher level without explicit use of metacognitive vocabulary.

I prefer to describe this kind of complexity as "sociocognitive" rather than "metacognitive" because of its emphasis on the social aspect of cognition. Think of sociocognitive complexity as triply nested mental states—a mental state within a mental state within yet another mental state—as in, for instance, "I didn't want (first mental state) him to know (second mental state) that I didn't like (third mental state) his gift."

Social situations featuring third-level-nested mental states are the baseline for fiction. By fiction I mean prose fiction, drama, and narrative poetry. Memoirs concerned with imagination and consciousness rather than chronology, like Nabokov's *Speak, Memory*, also belong in this category.

Once you start reading a work of fiction, you encounter third-level nesting very soon and after a while are immersed in it. Different authors achieve this by different stylistic means, focusing primarily on mental states either of characters or of narrators and implied readers. Some writers operate on the fourth level of sociocognitive complexity, and some reach even to the fifth and sixth.

When I say that fiction can achieve high levels of sociocognitive complexity without explicit metacognitive vocabulary, I don't mean that fiction writers don't use such words as "think," "know," and "remember." Obviously, they do. Still, the complexity created by such words is inferior to that created contextually, or "implicitly" (to stick with Peskin and Astington's term).

Consider the following excerpt from an 18th-century novel, Cao Xueqin's *The Story of the Stone:* "And now suddenly this Xue Bao-chai had appeared on the scene—a young lady who, though very little older than Dai-yu, possessed a grown-up beauty and aplomb in which all agreed Dai-yu was her inferior." The one explicitly metacognitive term, "agreed," contributes little to the sociocognitive complexity of this sentence, which is instead created by the irritated tone with which Dai-yu refers to her cousin ("this Xue Bao-chai": "一個薛寶釵") as well as by readers' previous awareness of Dai-yu's near-paranoid self-consciousness.

To understand what's happening at this point in the story, students have to operate on at least the third level of sociocognitive complexity. Here is one possible way of mapping out nested mental states implied by the sentence: "The narrator wants his readers to realize that, whereas Dai-yu, insecure as she is, is certain that everyone considers her inferior to Xue Bao-chai, she might be misinterpreting their feelings."

Making sense of Dai-yu's thoughts thus exemplifies what Peskin and Astington call a "constructive, effortful process where the learner actively reorganizes perceptions and makes inferences"—a process that drives the acquisition of a rich vocabulary but is not driven by it. (A rich vocabulary is a symptom of sophisticated metacognitive thinking, not its cause.) Make no mistake, however: What yields this complex metacognitive reasoning is something as seemingly inconsequential as a story about lovesick teenagers narrated by a magic stone.

Of course, literary nonfiction may occasionally achieve third-level sociocognitive complexity. Moreover, a teacher discussing a piece of literary nonfiction may cause students to reorganize their perceptions—without piling up metacognitive vocabulary and thus doing the hard work for them. But the key word here is "occasionally." If you want nonstop high-level sociocognitive complexity, simultaneous with nonstop active reorganization of perceptions and inferences, only fiction delivers. Teach less of it, and only students whose parents encourage them to read a lot of fiction on their own will still do well. The less fortunate others will end up with poor vocabularies and grades.

The decision to teach elementary and secondary students more literary nonfiction and less fiction will affect the future of higher education as severely as drastic budget cuts, yet more insidiously.

Literature professors will be the first to feel the pinch for, as more students with poor vocabularies come to college, their instructors will be tacitly pressured to assign even fewer pages of Cervantes, Fielding, and Morrison per week. The larger damage, however, won't be easily quantifiable. If we define complexity in terms of metacognitive thinking, then reading less fiction on the grade- and high-school levels will decrease students' capacity for complex thinking in all academic disciplines.

That capacity won't miraculously rebound once students start college. We'll never know what breakthroughs in ecology, biochemistry, economics, and neuroscience will not have happened because, for years before entering college, students will have been reading more informational texts and less fiction. Twenty years from now, who will take seriously the suggestion that we still don't have a solution to this or that problem because our children haven't been reading enough fiction in school? Yet in a world more complex than we appreciate, that may very well be the case. ■

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