theories and
methodologies

The Secret Life of Fiction

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A TROUBLING FEATURE OF THE COMMON CORE STATE STANDARDS INITIATIVE (CCSSI) FOR ENGLISH LANGUAGE ARTS (ELA) IS ITS FAILURE TO recognize literature as a catalyst of complex thinking in students. According to the CCSSI, to "prepare all students for success in college, career, and life," children must read texts "more complex" than "stories and literature" ("English Language Arts Standards"). The assumption that "stories" are inferior to nonfiction has a long tradition in Western culture; tapping into that prejudice is easy, and no proof seems to be required.

Yet the burden of proof is on people who make this assumption or, worse yet, use it as the basis for an educational policy that will affect several generations of schoolchildren. Consider the numbers provided by CCSSI. If in fourth grade the distribution of "literary" and "informational" reading in ELA is 50-50, by eighth grade that distribution is expected to be 45-55 and by twelfth grade 30-70 (*Common Core State Standards*). The justification for this shift is that informational texts enrich children's vocabulary, and a rich vocabulary predicts academic success. One expects that the people who prescribe these percentages would have at least some familiarity with studies on children's acquisition of vocabulary, studies that would show that informational texts are indeed a better lexicon builder than "stories and literature."

The reason that such studies are never mentioned by the architects of the CCSSI is that they don't exist. What does exist is a large body of research in developmental psychology that correlates children's vocabulary with the development of their "theory of mind," also known as "mind reading"—that is, their ability to explain their own and other people's behavior as caused by mental states, such as thoughts, desires, and feelings.[1] Even a cursory look at the studies in developmental psychology calls into question facile assertions about the benefits of increased exposure to informational texts. A sustained engagement with these studies suggests that reading fiction constitutes a direct path to a rich vocabulary, because of demands

that fiction places on readers' theory of mind, and hence that the CCSSI recommendation should be reading more literature, not less.

Note that what I call sustained engagement calls for more than just reporting the findings of cognitive scientists. Although some of them suggest that reading fiction benefits children's theory of mind, their speculations about what makes fiction unique in this respect remain rather general. We can't expect it to be otherwise. Most cognitive scientists have neither expertise nor institutional incentive for studying literary texts. Literary scholars have both, which is why it's up to us to theorize a link between the research in cognitive science and recommendations concerning reading practices in the classroom. Doing so does not entail drawing up reading lists (indeed, the CCSSI doesn't offer such lists either), but it does entail recognizing moments when data from another discipline starts amassing on the borders of "our" territory—that is, the territory that we are both qualified for and invested in exploring.

First, a brief history of research that connects the acquisition of vocabulary to the development of theory of mind through (crucially) social class. Studies of vocabulary size in children date to 1891, but methodological shortcomings rendered them unreliable until the early 1980s. In 1982, Michael Graves and his colleagues reported that "at the end of first grade, middle-class students [read and understood] about 50% more words than [did] disadvantaged students" (Graves, Brunetti, and Slater 102). The follow-up studies demonstrated that although the gap narrows as the students grow older, by the end of high school students from socioeconomically disadvantaged backgrounds still know one-quarter fewer words than their coevals from more privileged backgrounds (White, Graves, and Slater).

The 1990s saw numerous studies of theory-of-mind development in preschool children. It's been shown that children "from middle-class families did significantly better than children from working-class families in all the domains" under assessment, including understanding of false belief (i.e., understanding that another person may believe that something you consider false is true) and emotion (Cutting and Dunn 861). Note the purposely narrow definition of theory of mind used in these studies. Given the infamous history of "deficit" approaches to testing in underprivileged populations, one should be aware of the danger of extrapolating from this limited operational definition any across-the-board assumptions about the subjects' theory of mind.[2]

Subsequent work on the correlation between theory of mind and vocabulary added an important nuance to the socioeconomic factor. Parents from higher socioeconomic groups have been shown to engage in more discussions of mental states with their children. Intervention programs that encouraged children from disadvantaged backgrounds to construct narratives about their own and other people's mental states were successful when they involved parents but not when they targeted only classroom communication (Peterson, Jesso, and McCabe). Parents "who talk about psychological themes promote their children's mental state understanding" (Harris, de Rosnay, and Pons 71).[3]

Intertwined as vocabulary and theory of mind appear to be, there is no consensus among cognitive scientists about the flow of causality. This state of affairs reflects the larger issue of the relation of language acquisition and theory-of-mind development. Both language and theory of mind are broad terms embroiled in controversies, and the question "What comes first?" remains open. While some scientists ascribe a "fundamental, causal role to language in the development of theory of mind," others "see the role of language as no more than a natural way of providing children with the information they require for constructing a theory of mind"

(Astington and Baird 4). We must be aware of that uncertainty—it won't be resolved soon. In fact, one can see this lack of consensus as an opening for scholars from other disciplines, including our own.

Following up on the studies of the role of story listening in the growth of vocabulary in kindergarteners (e.g., Robbins and Ehri), Joan Peskin and Janet Wilde Astington looked into the possibility that exposure to explicit metacognitive terms in stories, such as *think*, *believe*, and *guess*, promotes theory-of-mind development in children. Metacognitive vocabulary is of particular interest to developmental psychologists because, among other things, it is correlated with doing well academically, except that in middle and high school, this vocabulary is represented by such words as "*infer, imply, predict, doubt, estimate, concede, assume,* and *confirm*—terms used in scientific and historical thinking" (254).

Peskin and Astington rewrote kindergartners' picture books, such as Pat Hutchins's *Rosie's Walk*, "so that the texts were rich in explicit metacognitive vocabulary, such as think, know, remember, wonder, figure out, and guess" (255). After comparing the performance of 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" (253). Children introduced to explicit metacognitive terms did start using them more, but they used them incorrectly (267).

On one hand, this study supports findings of psychologists who argue that what parents say in their interactions with their children is less important than how they say it. As Paul Harris, Marc de Rosnay, and Francisco Pons have observed, "[P]arents elucidate a variety of mental states in conversation with their children. That elucidation is not tied to particular lexical terms or syntactic constructions. Instead it reflects a wide-ranging sensitivity to individual perspectives and nurtures the same sensitivity in children" (72).

On the other hand, finding that *explicit* use of metacognitive vocabulary in stories doesn't seem to benefit children's theory of mind led Peskin and Astington to take another look at the *implicit* mentalizing expected of readers. In doing so, they were also prompted by an earlier study by Letitia Naigles, who 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," as well as by the studies by Deepthi Kamawar (Peskin and Astington 265) and by Elizabeth Richner and Ageliki Nicolopoulou, who "compared children whose teachers used more metacognitive vocabulary to those whose teachers used less" and "found superior performance on theory-of-mind tasks for children whose teachers used fewer metacognitive terms" (265).

As Peskin and Astington see it, "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" (266). In this view, reading fiction emerges as a paradigmatic process of constructive learning:

> 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 white-washing the fence.   (267)

This is where I believe literary scholars should enter this discussion. A conversation about implicit mentalizing expected from readers of fiction (particularly when the stakes are high, for Peskin and Astington imply that reading fiction may have long-term beneficial effects on students' overall academic performance) is a conversation that we should be part of.

Theory of mind has been on the radar of critics for almost a decade, making inroads in narratology (Abbott; Palmer; Rabinow-itz; Rabinowitz and Bancroft; Polvinen; Vermeule; Zunshine, *Why We Read*), historicism (Richardson; Spolsky), film and media theory (Plantinga; Smith), theater studies (Lyne), and queer theory (Vincent). We are still far off from any definitive understanding of what happens in the fiction-reading brain/mind, but so are cognitive scientists. Moreover, a se-ries of recent collaborations between literary scholars and cognitive scientists give us rea-sons to think that our informed speculations (buttressed by our discipline's long-standing interest in fictional consciousness) provide meaningful contributions to this project in progress (Phillips; Whalen, Zunshine, and Holquist; Vessel, Starr, and Rubin).

In what follows, I deal with one aspect of literary-critical exploration of theory of mind, which seems most relevant to the findings of Peskin, Astington, Naigles, and their col-leagues. I take as my starting point the argu-ment that fiction builds on the same cognitive adaptations for attributing thoughts and feel-ings to other people and ourselves that we use in our daily social life. (Attributing, inciden-tally, doesn't mean attributing *correctly*. Given how often our interpretations of our own and other people's behavior are wrong, a more ac-curate name for our daily mind reading may be mind misreading.) The argument that reading fiction is mind reading was developed sepa-rately in Alan Palmer's *Fictional Minds* and

my *Why We Read Fiction*. Palmer applies it primarily to novels, whereas I look at mental states in fiction, broadly defined as prose fic-tion, drama, and narrative poetry, as well as memoirs concerned with imagination and con-sciousness (e.g., Nabokov's *Speak, Memory*).

One important feature of fictional mind reading is that it intensifies certain patterns of mind reading present in our daily social interactions. Think, for instance, of our expe-rience of construing complex social situations in terms of triply nested mental states—that is, mental state within mental state within yet another mental state. After a conversa-tion with my friend, I *worry* that she *thought* I *meant the opposite* of what I *actually meant*. My partner tells me that he *didn't want* me to *know* what he was *thinking*. I *hope* that my son *will remember* tomorrow how he *feels* about this today. I am sure that you can recall some recent triple nestings of your own, al-though we don't explicitly articulate them to ourselves when we experience them.

Socially gripping and emotionally laden as triple nestings may be, in real life they are occasional. In fiction, they are omnipres-ent. More precisely, they are omnipresent in the *experience* of reading, as opposed to be-ing immanent in the text. Fiction prompts us to construct triple nestings to make sense of what we read, but the configuration and content of such nestings differ from one par-ticular historically situated reader to another (Zunshine, "From the Social"). What remains stable is the nestedness itself: the basic unit of fictional meaning is a *relationship* among mental states.

Complex nestings start accumulating on the level of paragraphs (Zunshine, "Theory"), though individual sentences may exhibit them as well. They can also organize entire chapters. For a quick illustration of chapter- and act-level triple nesting of mental states, take another look at Peskin and Astington's examples above: Tom *didn't want* his friends to *realize* that he *hated* whitewashing the

fence; Romeo *didn't know* that Juliet merely *wanted* some people to *think* that she is dead.

To refer to nested mental states at and above the third level, I introduced elsewhere the term "sociocognitive complexity," arguing that it can be created by a variety of means ("Theory"). For instance, the author may focus primarily on mental states of her characters or on mental states of characters, narrators, and implied readers. Moreover, she may choose to spell out those mental states or not to mention them at all and force us to infer them to make sense of what we read.

The same text may combine different means. For instance, E. M. Forster's *Howards End* opens with, "One may as well begin with Helen's letters to her sister" (3), but it also features such sentences as, "Ought Margaret to know what Helen knew the Basts to know?" (254). The latter spells out nested mental states of characters; the former calls forth an implied author who wants his reader to know that the action will be filtered through the consciousness of a reflective narrator—an implied triple nesting of mental states.

Another example, Yevgeny Zamyatin's *We*, here shows that a novel may position itself as *not* dealing with mental states (set in a dystopian future where feelings are jettisoned for mathematical formulas) yet still completely depend on nested ones:

> Все это без улыбки, я бы даже сказал, с некоторой почтительностью (может быть, ей известно, что я—строитель «Интеграла»). Но не знаю—в глазах или бровях—какой-то странный раздражающий икс, и я никак не могу его поймать, дать ему цифровое выражение.   (7)

> All this without smiling, I'd even say with a certain reverence (perhaps she knows that I'm a builder of the *Integral*). But I'm not sure—in her eyes or eyebrows—there is some strange irritating *x*, and I can't quite catch it, can't assign it a numerical expression.   (trans. mine)

There is a whole constellation of triple nestings here. For instance, D-503 *wonders* if I-330 is *impressed* because she *knows* what he does. Also, he is *irritated* that he *can't fathom* her exact *attitude*. Moreover, the implied reader *understands* that D-503 *doesn't realize* that he's *falling in love* with I-330.

One of my favorite examples of implied nested mental states comes from Cao Xueqin's *The Story of the Stone*. There sociocognitive complexity is created by strategic use of "this" before a character's name (in the original, it's "a": "一個"):

> 不想如今忽然來了一個薛寶釵，年歲雖大不多，然品格端方，容貌豐美，人多謂黛玉所不及.
>
>   (紅樓夢)

> 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.
>
>   (*Golden Days* 124)

Here is one way to spell out the mental states that we infer as we make sense of this sentence: the narrator *wants* his readers to *realize* that Dai-yu *feels more insecure than usual* because she *is certain* that everyone around her *considers* her inferior to Bao-chai. That's at least four nested mental states, but to articulate them, we have to take in subtle cues, such as the unhappy tone with which Dai-yu refers to her cousin ("一個薛寶釵": "a Xue Bao-chai"; "this Xue Bao-chai" in Hawkes's translation) and our previous awareness of Dai-yu's near-paranoid self-consciousness (Zunshine, "From the Social").

I am casting my argument in pointedly "cognitivist" terms (e.g., *nested mental states*, *sociocognitive complexity*), but this should not obscure the fact that people who first broached these issues were not cognitive scientists but literary scholars. It was Haun Saussy who observed, "That thoughts can be represented even if unspoken is a common-

place of universal literature" (428). So too narrative theorists anticipated, in their exploration of irony, the conversation about nested mental states, pointing out that in "any example of narrative art there are, broadly speaking, three points of view—those of the characters, the narrators, and the audience. As narrative becomes more sophisticated, a fourth point of view is added by the development of a clear distinction between the narrator and the author" (Scholes, Phelan, and Kellog 240).

I take these insights further by making two points. First, triply nested mental states—both implied and explicit—constitute fundamental units of meaning in fiction. (Thus, each of the different points of view posited above by the narrative theorists is expressed as a *nested* mental state. For instance, in Henry Fielding's *Tom Jones*, readers know that they have more insight into Mr. Thwakum than does Mr. Allworthy. However, lest readers condemn "the wisdom and penetration of Mr Allworthy," the narrator reminds them that the only reason they know what they do is that the narrator himself has "informed" them "of these things" [117].) Second, fictional nestings mimic patterns of our everyday social functioning, underwritten by theory of mind, yet go significantly beyond them. Fictional sociocognitive complexity is created by stylistic means unique to specific genres and authors and as such is not reducible to social cognition (which is complex in its own right [Zunshine, "Style"]).

Because something happens en route from *Rosie's Walk* to *Howards End*. The mind reading expected from a preschooler to enjoy Hutchins's story is quite sophisticated: the child delights in her knowledge that Rosie the hen doesn't know that the hungry fox wants to devour her and that she has one lucky escape after another. The reader of *Howards End* builds on this early sophistication but also on the massive cultural-cognitive scaffolding that has accrued in the intervening

years. She brings to Forster's novel the mastery of the codes of fiction,[4] including genre and heteroglot awareness, that comes with more reading of fictional minds. For instance, a nine-year-old may in principle get the meaning of "Ought Margaret to know what Helen knew the Basts to know," but she won't hear its parodic tone. Hence she won't question the likelihood of Forster's narrator spouting such a crude nesting and double-check its source in the text,[5] which turns out to be Tibby, a young man bored by "personal relations." (And, of course, a student who pays attention to sources of statements is very different from a student who doesn't, as any science or history teacher can attest.)

How are these speculations relevant to the CCSSI insistence that informational texts promote the acquisition of vocabulary in students and thus should outweigh literary texts in ELA? The answer to this question depends on how seriously you take the studies of developmental psychologists that suggest, first, that it is the metacognitive vocabulary (i.e., thinking about thinking) that promotes academic success and, second, that simply encountering this vocabulary in texts and classroom discussions does not contribute to its acquisition.

If you take such studies seriously, sociocognitive complexity of literary texts deserves another look. Literary texts always function on a higher level of sociocognitive complexity than do informational texts; moreover, they can achieve this higher level without the explicit use of metacognitive terms. By *implying* nested mental states, fiction exemplifies the "constructive, effortful process where the learner actively reorganizes perceptions and makes inferences" (Peskin and Astington 266).

Of course, informational texts can occasionally be highly sociocognitively complex, and instructors who teach them may occasionally make a point of not piling up metacognitive vocabulary and thus doing the hard work for their students (Zunshine, "Why Fiction"). But if one looks for consistently high

sociocognitive complexity *simultaneous* with consistently active reorganization of perceptions and inferences, only fiction delivers. Teaching less of it amounts to a regressive tax on education because 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 with poorer vocabularies and grades.

Notes

1. Research in theory of mind has been growing exponentially in all branches of psychology, from cognitive neuroscience to social psychology, as well as in cognitive literary studies, but for the purposes of this piece I focus on developmental psychology and pedagogy and then on cognitive literary theory.

2. I am grateful to Ernest Morrell and to students in Sheridan Blau's colloquium of the English Education Program at Teachers College, Columbia University, for this insight.

3. See also de Rosnay, Pons, Harris, and Morrell; Hughes, White, and Ensor.

4. Here and elsewhere I am grateful to Evelyne Ender and Deidre Shauna Lynch for their insightful suggestions.

5. On source monitoring in fiction, see Zunshine, *Why We Read*.

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