

Sociocognitive Complexity

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We live in other people's heads: avidly, reluctantly, consciously, unawares, mistakenly, inescapably. Cognitive scientists call our evolved adaptation for explaining people's behavior in terms of their mental states—thoughts, feelings, and intentions—"theory of mind," or "mind reading." They might as well call it "mind-misreading," given how many of our attributions and interpretations of thoughts and feelings are incomplete or just wrong. But since evolution doesn't deal in perfection, we fumble through by "reading minds" as best we can.

In my book *Why We Read Fiction*, I emphasize the social aspect of our engagement with fictional narratives, arguing that whereas theory of mind evolved to track mental states involved in real-life social interactions, on some level our theory-of-mind adaptations do not distinguish between the mental states of real people and those of fictional characters. Fiction feeds our theory of mind, giving us carefully crafted, emotionally and aesthetically compelling social contexts shot through with mind-reading opportunities. Hence the pleasure afforded by following minds in fictional narratives is to a significant degree a *social* pleasure—an illusory but satisfying confirmation that we remain competent players in the social game that is our life.

I won't revisit this emphasis on the social aspect of reading fiction, but I want you to keep it in mind because it provides a crucial background for everything I will say.

Recently I started using the term *sociocognitive complexity* to describe patterns of embedment of mental states within mental states in fiction. Any given work of fiction can be viewed as a succession of scenes of varying sociocognitive complexity, including scenes in which the same character reflects upon his or her own mental states. For example, Robinson Crusoe may go from imagining God's attitude toward him, poor sinner, to remembering what he used to think about what he would feel were he to find himself in a certain situation. I use the somewhat counterintuitive example of *Robinson Crusoe* on purpose to emphasize the point that sociocognitive complexity requires multiply embedded mental states but not necessarily multiple characters.

Social situations featuring third-level embedment—a mind within a mind within a mind—are the baseline for fiction (i.e., prose fiction, drama, and narrative poetry). No fictional narrative can function on a lower level of sociocognitive complexity, though some experimental narratives try disguising mental states.

Parts of this essay have appeared in Zunshine, "What to Expect When You Pick Up a Graphic Novel." I thank the editors of that special issue of *SubStance*, Jared Gardner and David Herman, for permitting me to reprint the material from that essay here.



Figure 1.

Some authors occasionally operate on the fourth level, and some reach even to the fifth and sixth levels. In contrast, encyclopedia entries never rise to the third level, unless they deal with subjects that come with their own higher sociocognitive complexity (e.g., a Wikipedia entry featuring the plot synopsis of a novel or a movie) (see Zunshine, "Style").

Moreover, writers make some characters more "cognitively complex"—that is, capable of embedding more mental states than others. For instance, Fanny Price from Austen's *Mansfield Park* is often preoccupied with what other people might be thinking about other people's feelings, while Lady Bertram seems to be incapable of such complex mind-reading attributions (see Zunshine, "Mind Plus").

Approaching fiction in terms of its sociocognitive complexity is ultimately a historicist inquiry. We may ask what factors influence the writer's decision about which characters will carry on complex mind-reading reflections and which will have to settle for simpler ones. Such decisions are often shaped by historically contingent genre conventions, by contemporary ideological preoccupations of the society, as well as by the personal history of the author.

Having discussed sociocognitive complexity and ideology elsewhere (Zunshine, "1700–1775"), I will focus on genre. Consider Nancy Butler and Hugo Petrus's adaptation of *Pride and Prejudice* published by Marvel Comics. The graphic novel contains a generous sampling of third-level mental embeddings but hardly any fourth-level embeddings. There are also some second-level embeddings that appear striking once you realize to which original scenes they correspond. For instance, when Elizabeth Bennet comes to visit Pemberley on the invitation of Mr. Darcy and his sister and encounters Miss Bingley, Miss Bingley welcomes her by observing: "I understand, Miss Bennet, that the militia have left Meryton. They must be a great loss to your family," to which Elizabeth replies lightheartedly: "We are recovering tolerably" (figure 1). The impression conveyed by this panel is that this particular exchange involves only two people: Miss Bingley, who is being catty in implying that the Bennet girls run after military officers in an embarrassing manner, and Elizabeth, who deflects this jab laughingly, and that's all there is to it. Nobody else can hear them; at least nobody is shown to overhear their conversation.

If we map out this scene in terms of its embedded mental states, we get a second-level embedding with Miss Bingley at its apex: Miss Bingley *wants* Elizabeth to *feel* bad. Elizabeth, cheerfully indifferent, doesn't seem to entertain any complex thoughts or feelings.

In contrast, in Austen's novel, Miss Bingley's remark sets off a complicated process of mind reading involving four people: Elizabeth, Miss Bingley, Mr. Darcy, and Mr. Darcy's sister:

Had Miss Bingley known what pain she was then giving her beloved friend [i.e., Georgiana], she undoubtedly would have refrained from the hint; but she had merely intended to discompose Elizabeth by bringing forward the idea of a man to whom she believed her partial, to make her betray a sensibility which might injure her in Darcy's opinion, and, perhaps, to remind the latter of all the follies and absurdities by which some part of her family were connected with that corps. (204)

PRIDE & prejudice

MARVEL

WHO IS
MR. DARCY?

DINGLEYS
BRING BLING
TO BRITAIN

How to
CURE your
BOY-CRAZY
SISTERS!

17 Secrets
About
SUMMER
DRESSES

LIZZY ON
LOVE, LOSS,
AND LIVING

JANE
AUSTEN

ADAPTED BY
NANCY BUTLER
& HUGO FERRAS

Figure 2.

If we map out this passage in terms of its embedded mental states, we get a series of fourth-level embeddings, such as: Elizabeth is aware that Miss Bingley wants Mr. Darcy to think of Elizabeth's feelings about Mr. Wickham, and Elizabeth is also aware that Miss Bingley doesn't know that her question will prompt Miss Darcy to think of Mr. Wickham.

As we follow this move from the fourth-level embedding of the original to the second-level embedding of the adaptation, we have to ask: what intuitive/unspoken assumptions about mind-reading preferences of prospective readers underlie this downgrade from the fourth level of embedding to the second level?

In her introduction to the Marvel edition, Butler explains that she turned to Austen's novel to bring "preteen and teenage girls" into the comics stores hitherto haunted overwhelmingly by boys. Hence one possible intuitive assumption behind calibrating its level of sociocognitive complexity seems to be that girls of this age prefer shallow mental embeddings. Is this assumption correct? We don't have a conclusive answer to this question, but however little we do know implies that it's not true at all (see Zunshine, "What to Expect").

But age and gender might be somewhat of a red herring here; the real issue at stake may be genre. Perhaps Marvel's adaptation of *Pride and Prejudice* was meant to tap not the market for novels but the market for educational study guides, such as SparkNotes. A typical study guide downgrades the sociocognitive complexity of the original by dispensing with the individual writing style of the author. After all, it is individual style that brings in complex mental states. Writers don't construct crudely obvious mental embeddings, such as "he *wants* them to stop *thinking* whatever they are *thinking* and *imagine* instead that they are in this place that he is *thinking* about." They may say instead, "Once more. Say you are in the country" (Melville 2). Eight words, not a single direct reference to mental state, yet at least three embedded mental states. Paraphrase it, getting rid of Melville's style, and you may end up with zero mental states: "Ishmael is now talking about the country." This is, in effect, what study guides do, and this is, to some extent, what Marvel's *Pride and Prejudice* does.

Or perhaps Marvel's adaptation taps the market for girls' magazines? The cover of Butler and Petrus's *Pride and Prejudice* is strongly reminiscent of the covers of such publications as *Seventeen*, *Teen Vogue*, and *Girl's Life Magazine* (figure 2). These magazines function on the first and second levels of embedding. Interviewer: "What kind of girls are you drawn to?" Justin: "Someone who is funny. I like to laugh. But I need someone smart. I don't want to talk to someone who's dumb" (Gandhi 121). Their forays into the third level are rare, but they do happen: "I learned pretty quickly that you need to be careful who you trust" (Martinez 143). With its *Seventeen*-like layout, cover teasers, and subdued taupe and green color scheme, Marvel's *Pride and Prejudice* seems to promise its readers a level of sociocognitive complexity somewhat higher than that of *Seventeen* but not as (presumably) forbiddingly high as that of Austen's novel.

This brings us to the issue of the cultural packaging of sociocognitive complexity. When we pick up a certain book, magazine, or newspaper or open a webpage, do we intuitively expect to encounter a certain level of sociocognitive complexity?

How do cultural representations shape such expectations? What ideological agendas gain or lose traction depending on their level of sociocognitive complexity? What levels of sociocognitive literacy do we expect from our students? Is it possible that literature courses, classroom discussions, and essay writing reward students for operating on higher levels of sociocognitive complexity? It seems, for instance, that a student paper containing mostly first- and second-level mental embeddings is not likely to get a high grade, as opposed to a paper functioning consistently on the third and even fourth level of embedding. And is it possible—to address directly the question posed by this roundtable, “What Can Reading Do?”—that by expecting students to operate on higher levels of sociocognitive complexity, literature courses offer them training in a way of thinking not often available in many other academic venues?

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