Lisa Zunshine

Mind Plus: Sociocognitive Pleasures of Jane Austen's Novels

I. When Catherine Met Henry, Who Watched Whom and When

If I ask you what happens during the first meeting of Catherine Morland and Henry Tilney in Jane Austen's *Northanger Abbey* (1798), chances are that you will tell me that they dance together, that Henry teases Catherine about Bath and her nonexistent diary, and that, when Catherine's older friend, Mrs. Allen, briefly joins their conversation, Henry shows himself to be surprisingly knowledgeable on the subject of muslins. It is somewhat less likely that you will tell me that when Henry and Catherine dance and talk, they are being observed by Mr. Allen, who wants to make sure that the young woman in his charge does not make any objectionable acquaintances. For it turns out that Mr. Allen has "early in the evening taken pains to know who [Catherine's] partner was, and [has] been assured of Mr. Tilney's being a clergyman, and of a very respectable family in Gloucestershire" (15).

The reason that I would not expect you to remember this is that the narrator herself seems to treat it as an afterthought. The sentence about Mr. Allen is tucked in at the very end of the chapter and feels like a throwaway observation: sure, we learn who Henry is and where he is from, but it is not all that important. The information that really matters—that he is funny and agreeable—has been conveyed earlier, during the conversation about diaries and muslins.

Except that of course nothing is a throwaway in Austen, and especially when it seems to be such. Mr. Allen's inquiries remind us that in the late eighteenth century, for a young woman of limited financial resources, the visit to Bath constituted a serious business of looking for a suitable husband while maintaining a stellar reputation (which an objectionable acquaintance could tarnish); and that however light and noncommittal the conversation between Catherine and Henry might be, it occurs in a public space, where it can be scrutinized, interpreted, and misinterpreted by others.

Something else is going on in these closing lines. The last sentence adds another subjectivity or, let us say, *mind* (that of Mr. Allen) to the configuration of the minds hitherto present in the chapter (Catherine's, Henry's, Mrs. Allen's) and by so doing suggests that we need to revise the mental map of the scene, with which we thought we were already done. Until now we were aware of Catherine's observing Henry, Catherine's observing Mrs. Allen as observed by Henry, and Henry's observing Catherine as she observes him observing Mrs. Allen.[1] Now, however, we have to go back and imagine that at some point when Catherine is observing Henry and interpreting what she sees in a certain way, or when Henry is observing Catherine's observing him, and so on, Mr. Allen is observing both of them, registering some of the same body language that they register in their mutual observation, but interpreting it very differently.

For example, if we decide that Mr. Allen observes Catherine and Henry when they sit down after finishing the first dance and notices that at some point during their conversation Catherine turns her head away, he might assume that the young man has just flattered her in a particularly insinuating fashion, which caused her to avert her gaze modestly. In fact, Catherine turns away because Henry is joking and making faces, and she is not sure "whether she might venture to laugh" (12).

If, however, Mr. Allen observes the couple after his wife, Mrs. Allen, has joined them, another misinterpretation becomes possible. When Catherine listens to Henry's conversation with Mrs. Allen and fears that by humoring the older woman, Henry is actually making fun of her, Mr. Allen might also see, at a distance, that Henry and Mrs. Allen are engaged in an animated conversation and that Catherine is looking at Henry seriously. However, because Mr. Allen is not telepathic, he might assume that Catherine is quietly admiring Henry precisely at the moment when she actually doubts his moral integrity. And so forth: depending on where in the scene we decide to place Mr. Allen's observation of Henry, Catherine, and his wife, our perception of that moment will be adjusted. We become aware of another mind—another perspective of what's going on, an incorrect one perhaps (for example, Catherine is questioning Henry's integrity, not admiring him), or perhaps one that captures something that a correct perspective fails to capture (for example, the very fact that Catherine worries about Henry's moral integrity shows that she is already interested in him enough to care about his potential flaws).

Tracing these patterns of mutual awareness is integral to our interpretation of the characters, even if we never think about it in such terms. For example, we agree that Mrs. Allen is silly and her husband is clever, but it

is quite likely that underlying this judgment is our semiconscious realization that, in stark contrast to her husband, Mrs. Allen is constitutionally unable to observe a person while that person is observing somebody else. Generally, the more nested minds the character is capable of keeping track of, the more intelligent we perceive him or her to be.[2] Catherine thus clearly trumps Mrs. Allen, and Henry perhaps trumps Catherine, whereas Mr. Allen's status is ambiguous. He observes Henry and Catherine observing each other, and he may even observe Catherine observing Henry while Henry is observing Mrs. Allen. However, because we don't know for sure if he does the latter (for we don't know exactly when he is looking at them) and because, being out of earshot, he doesn't know what they are saying and is thus liable to misinterpret certain body language, we can't say with absolute certainty that this scene constructs him as the cleverest of all or, at least, as the best in the social game that goes on in the room.

I don't know how many readers actually think it through in this fashion. If we read the chapter fast, we may not even register Mr. Allen's brief appearance, much less compute possible repercussions of his noticing Catherine's observing Henry or Henry's observing Mrs. Allen at this or that particular moment. But even if we don't do this, the option of doing it is still right there. Austen's text makes it possible—for readers so inclined—to factor in another mind and to consider various consequences of viewing the scene through yet another set of eyes.

II. The Power of Meanwhile

If we now look at other Austen novels, we realize that this strategy of imposing an extra mind onto a scene *after* the configuration of minds has apparently been completed is Austen's trademark as a writer. What differs from novel to novel is *whose* subjectivity gets to be added on in this fashion: that of the main heroine or that of one or several secondary characters. In the novels whose protagonists are relatively "clueless" (for example, Catherine Morland, Emma Woodhouse), the subjectivities of other people are often added on; in the novels whose heroines are more "penetrating" (e. g., Fanny Price, Anne Elliot), their own subjectivities are often brought in this way. Or, to put it differently, this is one way Austen's narrative constructs a perceptive heroine—she gets to be *the* mind added to the seemingly completed scene.[3]

Consider the chapter in the first volume of *Mansfield Park* that describes the effect that the introduction of Henry and Mary Crawford had on the Bertram household. Austen starts off with a series of vignettes, each

depicting two people thinking about a third person, or three people talking together about some object that interests them (for example, marriage), or one person comparing two people to each other. So we have the Bertram sisters, Maria and Julia, thinking of Mary Crawford (they view her as a "sweet pretty girl" [39]); Maria and Julia thinking of Henry Crawford (they start off by considering him "plain" and then come to believe him to be "the most agreeable young man [they] have ever known" [39]); Mary and Henry talking about the Bertram sisters; Henry, Mary, and Mrs. Grant talking about marriage; Mrs. Grant thinking about Mary and Henry; Mr. Grant thinking about Mary and Henry; and Mary thinking about the Bertram brothers, Edmund and Tom.

   Then, almost exactly in the middle of the chapter, we have a sentence that functions much like the one that inserted Mr. Allen's mind into in the ballroom scene of *Northanger Abbey*, that is, we have to rethink what came before from the point of view of another person. Except that in *Northanger Abbey*, the mind of Mr. Allen is brought in as an afterthought—readers can choose not to pay much attention to it—whereas in *Mansfield Park*, the narrative is brought to a screeching halt (insofar as you can talk about screeching halts in relation to Austen's prose). Deep in discussion of Mary's thoughts about Tom, the narrator suddenly stops short and asks, "And Fanny, what was *she* doing and thinking all this while? and what was *her* opinion of the new-comers?" (43; emphasis original). She follows this question with the brief sketch of Fanny's thoughts. This brevity, however, should not obscure the importance of what she accomplishes here by positioning Fanny's mind as the extra mind through which what was said before now has to be re-perceived.[4]

   Thus we learn that in "a quiet way, very little attended to, [Fanny] paid her tribute of admiration to Mary Crawford's beauty; but as she still continued to think Mr. Crawford very plain, in spite of her two cousins having repeatedly proved the contrary, she never mentioned him" (43). In other words, Fanny is aware of Maria and Julia's assessment of Mary Crawford as pretty and she agrees with it; she is similarly aware of their reassessment of Henry Crawford as very attractive but does not agree with that. Austen doesn't tell us Fanny's views on other mental configurations (for example, what she might think of Mary's conversations with and thus her perception of Tom and Edmund), but we can infer that she certainly has an opinion about it, not only because she observes everybody but also because in the case of Mary and Edmund she has a particular reason to pay attention to their perceptions of each other (she is in love with Edmund). Moreover, other people are not aware of and don't care about Fanny's per-

ceptions (what she says is "very little attended to"), which means that at least at this point, hers is the most reflexive mind in the narrative.

Another occasion when Fanny's subjectivity is added onto a seemingly completed scene comes right after Henry Crawford has been delighting the Bertram family with reading a passage from Shakespeare. Complimented on his performance by Lady Bertram, who even suggests that Henry should "fit up a theatre at [his] house in Norfolk," Henry responds with a quick negative and looks at Fanny "with an expressive smile, which evidently [means that as his future wife, Fanny] will never allow a theatre at Everingham." What is interesting about this exchange is that it initially positions Edmund as the observer taking in the scene; it is through Edmund's subjectivity that other subjectivities are represented: "Edmund saw it all, and saw Fanny so determined *not* to see it, as to make it clear that the voice was enough to convey the full meaning of the protestation; and such a quick consciousness of the compliment, such a ready comprehension of a hint, he thought, was rather favorable [to Henry's plans of wooing Fanny] than not" (307).

Edmund's position as the observer who takes in everything that passes is reconfirmed a minute later when Fanny involuntarily shakes her head in response to something Henry says and Henry moves closer to her, "intreating to know [the] meaning" of her gesture. It is because he sees what is going on and wants Henry to succeed with Fanny, that Edmund then attempts to remove himself from the scene: as "Edmund perceived … that it was to be a very thorough attack, that looks and undertones were to be well tried, he sank as quietly as possible into a corner, turned his back, and took up a newspaper" (310).

And then Fanny's mind is superimposed upon the scene, using almost the same construction as in the earlier passage, which dealt with the mutual assessment of the Bertrams and the Crawfords. There we were asked what was Fanny "doing and thinking *all this while*"; here we learn that "Fanny, *meanwhile*, vexed with herself for not having been as motionless as she was speechless, and grieved to the heart to see Edmund's arrangements, was trying, by everything in the power of her modest gentle nature, to repulse Mr. Crawford" (310; emphasis added). In other words, we have thought *all this while* that Fanny was busy not noticing Henry's attentions, that Henry was carefully monitoring Fanny's reaction to his attention, and that Edmund was observing both Fanny and Henry—a configuration that seemed to have firmly placed Fanny as the double object of observation, caught in between the gazes and physical maneuvering (that is, chairs moved back and forth) of the two men. But we were wrong: *All*

this while Fanny was observing everybody, including herself (even if she could not completely control her body language), and it is her mind and not Edmund's that gets the last word (so to speak) by being superimposed on top of everybody else's.[5]

III. Constraints that Enable

Figuring out whose mind gets to be on top of other minds is a pleasant enough exercise, but what does it have to do with "biological constraints on the literary imagination," the topic of this volume?

Nothing—if we think of constraints as *limiting* behavior, and everything—if we think of them the way evolutionary psychologists do: as *enabling* behavior. In this latter case, we'd say that biological constraints enable literary imagination. Specifically, a particular evolved cognitive adaptation known as theory of mind—that is, our ability to "predict and interpret the behavior of people based on an understanding of their minds" (Saxe and Kanwisher 1835)—is the "constraint" that makes literary imagination possible. As I will argue in the rest of this essay, this "constraint" pushes writers to invent new strategies for adding minds to social situations and to play around with the existing strategies. And in light of Austen's constant experimentation with her readers' theory of mind, I am delighted to consider her as a strikingly "biologically constrained" writer.

Of course I say this with my tongue somewhat in cheek. This is the last time in this essay that I refer to theory of mind not as an evolved cognitive adaptation but as a constraint. The word does carry a regrettable conceptual baggage (that is, most people do think of constraints as limits), which might be impossible to shake off. Leda Cosmides and John Tooby address this problem in their essay "From Evolution to Behavior: Evolutionary Psychology as the Missing Link," when they discuss "so-called 'constraints' on learning":

> Biologists and psychologists have an unfortunate tendency to refer to the properties of domain specific (but not domain general) mechanisms as "constraints." For example, the one-trial learning mechanism, discovered by Garcia and Koelling (1966) that permits a rat to associate a food taste with nausea several hours later is frequently referred to as a "biological constraint on learning." Books reporting the existence of domain specific learning mechanisms frequently have titles like *Biological Boundaries of Learning* (Seligman and Hager, 1972) or *The Tangled Wing: Biological Constraints on*

the Human Spirit (Konner, 1982). This terminology is seriously misleading, because it incorrectly implies that "unconstrained" learning mechanisms are a theoretical possibility …

All constraints are properties, but not all properties are constraints. Calling a property a "constraint" implies that the organism would have a wider range of abilities if the constraint were to be removed.

Are a bird's wings a "constraint on locomotion"? Birds can locomote by flying or hopping. Wings are a property of birds that enables them to locomote by flying, but wings are not a "constraint on locomotion." On the contrary. Wings expand the bird's capacity to locomote—with wings, the bird can fly *and* hop. Removing a bird's wings reduces its capacity to locomote—without wings, it can hop, but not fly. Wings cannot be a constraint, because removing them does not give the bird a wider range of locomoting abilities. If anything, wings should be called "enablers," because they enable an additional form of locomotion. Having them expands the bird's capacity to locomote. (300–01)

And again, in "The Psychological Foundations of Culture," Tooby and Cosmides write:

The notion that inherited psychological structure constrains is the notion that without it we would be even more flexible or malleable or environmentally responsive than we are. This is not only false but absurd. Without this evolved structure, we would have no competences or contingent environmental responsiveness whatsoever. Evolved mechanisms do not prevent, constrain, or limit the system from doing things it otherwise would do in their absence. The system could not respond to "the environment" (that is, to selected parts of the environment in an organized way) without the presence of mechanisms designed to create that connection. Our evolved cognitive adaptations—our inherited psychological mechanisms—are the means by which things are affirmatively accomplished. It is an absurd model that proposes that the potentially unfettered human mind operates by flailing around and is only given structure and direction by the "limits" and "constraints" built in by "biology." Instead, any time the mind generates any behavior at all, it does it by virtue of specific generative programs in the head, in conjunc-

>tion with the environmental units with which they are presented. Evolved structure does not constrain; it creates or enables. (38–39)

As a system of evolved cognitive structures, theory of mind thus enables fictional narratives. As I have argued in *Why We Read Fiction: Theory of Mind and the Novel*, it makes literature, as we know it, possible (10). Our cognitive adaptations for "mind-reading" (another term for theory of mind) are promiscuous, voracious, and proactive; their very condition of being is a constant stimulation delivered either by direct interactions with other people or by imaginary approximations of such interactions. So important is the mind-reading ability for our species, and so ready is our theory of mind to jump into action and to subject every behavior to "intense sociocognitive scrutiny" (Bering 12), that at least on some level[6] we do not distinguish between attributing states of mind to real people and attributing them to fictional characters.[7] Figuring out what Henry Tilney is thinking as he holds forth on muslins feels almost as important as figuring out what a real-life attractive stranger is thinking as she looks us in the eye and holds forth on how she enjoyed reading the book that we currently have in our hands. Hence the pleasure afforded by following various minds in fictional narratives is to a significant degree a *social* pleasure—an illusive but satisfying confirmation that we remain competent players in the social game that is our life.

Note that my argument about the sociocognitive pleasure afforded by reading fiction is broadly compatible with the consideration of the arts as "technologies that 'pick the locks' that safeguard the brain's pleasure circuits," advanced by Steven Pinker and shared by Tooby and Cosmides (See Pinker, *How the Mind Works* 524, and Tooby and Cosmides, "Does Beauty" 11). In this view, "many well-known features of the visual arts, music, and literature take advantage of design features of the mind that were targets of selection not because they caused enjoyment of the arts, but because they solved other adaptive problems such as interpreting visual arrays, understanding language, or negotiating the social world" (Tooby and Cosmides, "Does Beauty" 11). However, more recently, Tooby and Cosmides have also considered the possibility that "the human mind is permeated by an additional layer of adaptations that were selected to involve humans in aesthetic experiences and imagined worlds." In this view, "aesthetic motivations" have a scaffolding function, helping to organize the brain as it reaches out to the environment to bring online and fine-tune its adaptations (11, 15). The experience is pleasurable, but the adaptive reasons for this pleasure are completely under the radar of our consciousness.

While the question of whether our enjoyment of fiction is an adaptation or a byproduct of other adaptations (such as theory of mind) remains open, the centrality of mind reading to our engagement with fictional narratives continues to be borne out by ongoing studies in cognitive psychology. A series of experiments conducted recently by Jennifer Barnes, Simon Baron-Cohen, and Paul Bloom demonstrate that, when given a choice between reading fictional narratives about people (which means following the protagonists' mental states), non-fictional narratives about people, fictional narratives about objects, and non-fictional narratives about objects, neurotypical (that is, non-autistic) subjects overwhelmingly prefer reading fictional narratives about people, with non-fictional narratives about people coming second. They don't particularly like reading fictional narratives about objects, but they would still rather do that than read non-fictional narratives about objects (such as encyclopedia entries)—which they absolutely hate, in stark contrast to subjects with Autism Spectrum Condition (ASC), who strongly prefer non-fictional narratives about objects to any stories about people. The striking lack of interest on the part of ASC subjects in narratives featuring minds supports the long-established association between autism and theory-of-mind deficits, while the pointed interest in minds (in both fictional and non-fictional narratives) on the part of neurotypical subjects supports the hypothesis that the depiction of mental states is what attracts readers to fiction (See Barnes, "Fiction and Empathy" and Barnes *et al*, "Reading Preferences").

IV. SOME IMPLICATIONS OF MINDFULNESS

If the pleasure afforded by reading novels is foremost a mind-reading pleasure, stemming from the intensely social nature of our species, we can predict that writers would intensify the pleasure of their readers by increasing what we may call the *mindfulness* of social situations that they conjure. That's what Austen does (intuitively, of course) by adding an extra mind to a seemingly completed scene and thus reversing our perception of its sociocognitive dynamics. As we adjust to a new perspective on the interplay of subjectivities that we have just witnessed—for example, starting to see the interaction between Fanny and Henry not just from the point of view of Edmund, but from the point of view of Edmund as perceived by Fanny—we "work out" in a focused way our theory of mind, stretching and feeling (so to speak) our powers of social reasoning. (Note that when I use this exercise metaphor, I don't imply any conscious intention on our part, as in: "I want to tone up my theory of mind; where is that

copy of *Mansfield Park*?" People enjoy—or don't—Austen's style of writing for any variety of self-articulated reasons while remaining completely unaware of its mind-reading challenges.)

Moreover, such a sociocognitive approach to Austen does not replace or contradict other established literary-critical approaches; rather, it supports and expands them. For instance, Alex Woloch has argued in *The One Vs. The Many: Minor Characters and the Space of the Protagonist in the Novel*, that one of the ways in which Elizabeth Bennet from Austen's *Pride and Prejudice* is gradually shown to emerge as the main protagonist is her ability to reflect other people's states of mind. As Woloch puts it, comparing Elizabeth to her sister Jane by "separating the agent of experience from the agent of consciousness, Austen presents Elizabeth on a qualitatively different plane from the rest of the characters and slowly integrates Elizabeth's thoughts with the narrative's own point of view" (78). To build upon Woloch's argument, I could say that by endowing Fanny with the mind that can represent another mind (for instance, in the scene above, Edmund's) while that other mind is already representing yet other minds (Fanny's and Henry's), Austen gradually fashions her as different from the rest of the characters and integrates her "thoughts with the narrative's own point of view."

But if we can speak of the "narrative's own point of view," as Woloch does, then we can also speak of the narrative's "mind" and say that it is the mind capable of representing, or *embedding* (the term preferred by some cognitive psychologists) all other complex mind-embeddings in the novel. In other words, the cognitive perspective clarifies how the process of the integration of the protagonist with the omniscient narrator, described by Woloch, works: The protagonist, such as Fanny or Elizabeth, may at times come closer than anybody else in the novel to being able to embed as many embedded mental states as the omniscient narrator is able to embed.

Both Woloch and I are thus interested in the representation of fictional subjectivity, only he considers it from the vantage point of character development while I consider it from a pointedly cognitive angle (as in, "what does this do to our theory of mind?"). These approaches are complementary, and either can serve as a useful entry point for a discussion of how novels construct the consciousness of their characters, narrators, and readers.

A closely related exploration of narrative consciousness has been developed by Blakey Vermeule, who has actually pioneered the present use of the term mindfulness. As she notes in her discussion of the distinction between "flat" and "round" characters:

Flat characters may not be especially psychologically realistic but they can be extremely psychologically compelling. When flat characters interact with round characters, they mine a rich vein of Theory of Mind. In literary narratives from ancient to modern times, some version of the following pattern repeats itself over and over again: a flat or minor character provokes a fit of reflection in a round or major character. The fit of reflection enlarges the scene and the minds of the people in it, who engage in elaborate rituals of shared attention and eye contact. The scene itself becomes soaked in mindfulness, increasing the sense of self-consciousness all around. ("Machiavellian Narratives" 219)

What I would like to add to Vermeule's important insight, based specifically on the construction of mindfulness in Austen, is that characters' flatness can be context-sensitive. The above passage from *Mansfield Park* features not just a terminally flat character, Lady Bertram (who, like Mrs. Allen from *Northanger Abbey*, can only "provoke a fit of reflection in a round character"—never experience one herself), but also a character we ordinarily would not see as flat: Henry Crawford. In this particular scene, however, he is on the flat side because he is just one step above Lady Bertram—being able to represent her state of mind and Fanny's state of mind (as he imagines it) but not more than that—while he himself serves to provoke a multiple-embedded mind-reading in Edmund, and even a richer one, in Fanny.

It seems then that one way in which Austen makes her readers feel that some characters are particularly compatible as romantic partners or friends, not at all compatible, or not-yet-compatible, is by juxtaposing their relative ability to entertain multiple-embedded mental states. Characters who do not belong together are separated by at least two levels of cognitive embedment, and they tend to stay this way throughout the narrative; even if they do end up married, we know that they can never be truly happy together. For instance, Mr. Collins from *Pride and Prejudice* is capable of representing one mental state, his own—as in, "I want to marry that pretty girl"—or two at the most, and incorrectly at that, as in, "I am sure that she wants to marry me, too." In contrast, his wife-to-be, Charlotte Lucas, can represent three embedded mental states, her own, Elizabeth's, and Mr. Collins's. As she discusses her engagement with Elizabeth, she tells her, "I see what you are feeling.… You must be surprised, very much surprised—so lately as Mr. Collins was wishing to marry you" (109). Charlotte's ability to embed Elizabeth's embedment of Mr. Collins's thoughts makes her a fit

friend for Elizabeth (who generally operates comfortably on the third level of cognitive embedment, too), but not a fit wife for Mr. Collins.

Genuinely compatible romantic partners exhibit more parity in their capacity for representing the complex mental states of others, being separated frequently by just one level of embedment. Consider, for example, a scene from Austen's *Persuasion*, in which Anne Elliot witnesses a silent but poignant communication between her former suitor, Frederick Wentworth, and her sister, Elizabeth, who run into each other in Molland's bakery shop:

> It did not surprise, but it grieved Anne to observe that Elizabeth would not know [Wentworth]. She saw that he saw Elizabeth, that Elizabeth saw him, that there was complete internal recognition on each side; she was convinced that he was ready to be acknowledged as an acquaintance, expecting it, and she had the pain of seeing her sister turn away with unalterable coldness. (130)

If we map out this passage in terms of the levels of embedded subjectivity, we may come up with something along the lines of, "Anne *realizes* that Wentworth *understands* that Elizabeth *pretends not to recognize* that he *wants* to be *acknowledged* as an acquaintance."[8] We can see that Anne and Wentworth are at the top of the cognitive "food chain"—capable of embedding more complex mental states than other characters in the novel (just as Fanny and Edmund are in *Mansfield Park*, but *not* Fanny and Henry or Captain Wentworth and Louisa Musgrove). Of course, when we read the novel, we don't think of its "levels of cognitive embedment"—and neither did Austen, when she wrote it. Still, if toward the end of the story, we are convinced that Anne and Wentworth belong together, their emergent cognitive parity *is* one of several psychological strategies that Austen intuitively employs to make us feel that conviction.

Once more, this "cognitive" reading of the episode from *Persuasion* plays well with other critical interpretations of its psychological dynamics, such as George Butte's discussion of Austen's unusual treatment of her characters' subjectivity—what he calls "deep intersubjectivity." As Butte argues in *I Know That You Know That I Know: Narrating Subjects from Moll Flanders to Marnie*, Austen was one of the first English writers to construct social situations in which characters would respond to each other's gestures and perceived emotions in an ever-intensified cycle of mutual awareness. As he puts it, the "process begins when a self perceives the gestures, either of body or word, of another consciousness, and it continues when the

self can perceive in those gestures an awareness of her or his own ges-
tures. Subsequently the self, upon revealing a consciousness of the other's
response, perceives yet another gesture responding to its response" (27).
So when "Anne Elliot watches Wentworth and Elizabeth negotiating
complex force fields of memory and protocol, the enabling strategy of her
story is a new layering of human consciousness, or a new representation
of those subjectivities as layered in a specific way"—the deep intersubjec-
tivity (4).

Having discussed at length elsewhere the compatibility between the
cognitive and the phenomenological perspectives (the latter exemplified
by Butte's innovative study) of Austen's representations of fictional subjec-
tivity, I only want to point out here that although deep intersubjectivity
is a mutual endeavour, emerging out of interaction between several char-
acters, some of these characters may end up being perceived as somewhat
more cognitively complex than others (See Zunshine, "Why Jane"). The
"I" of Butte's *I Know That You Know That I Know* is apparently capable
of embedding three mental states, whereas the "You" can only embed
two. I am only half joking as I read this mild cognitive disparity into the
nebulous "I" and "You" of the book's title. In an actual fictional narrative,
a writer would intuitively build on this kind of disparity in developing
her characters. She may use it to signal the developing incompatibility
between the "I" and "You," or, on the contrary, their mutual fit and excep-
tionality—that is, if she portrays all other characters as not capable of
entering any deeply intersubjective exchanges. (Note, by the way, that the
capacity for such exchanges by no means translates into superior personal
ethics: as Vermeule has pointed out, crafty villains can be "masterminds"
carrying on triple or even quadruple mental embedments [See Vermeule,
"Machiavellian Narratives"].)

Something else can be at stake, however, in the construction of char-
acters' cognitive complexity, besides the question of whether or not they
suit each other as romantic partners or friends. To the extent to which a
novel engages with ideologies of its day, the issue of cognitive complexity
may influence and in turn be influenced by them. As writers conjure up
intricate social situations, they have to decide (again, intuitively) which
characters will carry on complex mind-reading reflections and which
will have to settle for simpler ones. This decision could be informed by
considerations of social class, of gender or race, or of any other parameter
reflecting current ideological investments of the society. For example, as
I've discussed elsewhere, in eighteenth-century novels, lower-social-class
characters who are receiving alms from their "betters" are portrayed on

those occasions as not capable of embedding more than two mental states, whereas their benefactors can embed three or four. There is an important exception to this rule, however. If later on in the novel these recipients of charity are destined to move up the social hierarchy (by marrying into the class of their erstwhile benefactors or by being restored to that class after their temporary lapse into poverty), then even as they are receiving alms they are shown to be able to embed as many mental states as their bene-factors.[9] The cognitive thus informs the social, and vice versa. Fictional mindfulness can be an ideological as well as cognitive phenomenon.

V. More Ways of Adding Minds

Although I said earlier that Austen adds minds to her seemingly com-pleted scenes, it should be clear by now that the better term would be *integrate* rather than *add*. Integrating strongly implies embedding (as in, "Fanny is vexed by realizing that Edmund wants to help Henry to woo her"), whereas adding doesn't have to. So even as we agree that when I talk about adding I really mean integrating, we should still address the issue of mere mechanical adding, that is, of increasing the number of minds without embedding them with other minds present in the scene.

Briefly: I don't believe there is any particular cognitive satisfaction asso-ciated with the mere increase in the number of minds. For instance, there is nothing inherently pleasurable in considering a group of five hundred people, mind by mind, in the same passage. In fact, when writers portray crowds, they frequently represent them via just two or three mental states: those of the most vocal representatives shouting out their comments above the general noise. These minds might then be embedded with another mind—that of a person who is standing apart and addressing the crowd as a whole. (Consider, for example, George Eliot's handling of the collec-tive mind of the rambunctious "electors of Middlemarch" as Mr. Brooke is addressing them from the balcony.)

The image of a crowd represented by only a few mental states reminds us that at any given point in a fictional narrative the number of minds doesn't have to be the same as the number of people physically present.[10] Just as a mob, a neighborhood, or a family can be of "one mind"—forming what Alan Palmer calls an "intermental unit" (See Palmer's "The Middlemarch Mind" and "Storyworlds and Groups")—so one character can entertain simultaneously three embedded mental states, being aware, for example, of experiencing one emotion while wanting or fearing to experience another. Think of Defoe's Robinson Crusoe, who spends most of the story

alone on the desert island, obsessively contemplating his own mental states, comparing his present feelings to what they might have been had his circumstances been better or worse. Or think of the phenomena of "virtual focalizer" as described by David Herman—that is, of a consciousness of someone through whose eyes we see a given scene but who is not even a part of this particular storyworld. Thus Stephen Crane's "The Open Boat":

> In the wan light the faces of the men must have been gray. Their eyes must have glinted in strange ways as they gazed steadily astern. Viewed from a balcony, the whole thing would, doubtless, have been weirdly picturesque. But the men in the boat had no time to see it, and if they had had leisure, there were other things to occupy their minds. (423)

As Herman sees it,

> [If] someone had been there to focalize them the details [of the description] would have been evident, but since, strictly speaking, someone was not there, the details simply could not be evident. Yet the narrative unfolds by focalizing the scene *as if* the grey faces and glinting eyes were, in fact, included in the ontology of the storyworld, *as if* such things formed part of the inventory of the actual. (*Story Logic* 321)

In other words, a fictional narrative may conjure up a state of mind that cannot be traced to *any* character, embedding that state of mind with a shared mind of several physically present characters and with that of an implied character, such as the narrator. Thus the above passage from Crane's story encourages us to imagine, first, the intermental unit formed by the men in the boat (who, we are told, have no leisure to think what kind of picture they would make); second, a "virtual" mind of an observer who looks at these men from a balcony (and whose perspective thus would have been imagined by the men in the boat had they had the leisure to think about it); and, third, a narrator, who views this "virtual" observer on the balcony and knows what that nonexistent observer might be seeing. We are working with three embedded mental states, but none of them belongs to any one physically present character.

On the whole, as Vermeule has suggested, we do seem to find particularly memorable and perhaps enjoyable the fictional scenes that embed

three mental states (See Vermeule, "Machiavellian Narratives"), although, as I have demonstrated yet elsewhere, writers can certainly experiment with pushing the number of embedded mental states to five or six (See Zunshine, *Why We Read Fiction* 31–35). Austen seems to be doing that in the Molland-bakery-shop passage from *Persuasion*, though, as a rule, she rarely goes above integrating more than four mental states in one passage, with the fourth mental state added just when we think that the present configuration of minds is complete.

What other techniques can writers use to increase mindfulness of social situations that they depict? One such technique, beloved by writers since antiquity, is eavesdropping. Eavesdropping/overhearing usually adds a third mind to a scene; or, if two people are eavesdropping, it may add a third and a fourth mind. Think of Bridget Allworthy and Deborah Wilkins eavesdropping on the conversation between Squire Allworthy and Jenny Jones in Henry Fielding's *Tom Jones*. Inserting a letter into a non-epistolary novel works the same way. It adds the mind of the person who is reading the letter to the configuration of minds already embedded in it.

Another venerable narrative strategy that increases fictional mindfulness is a story-within-a-story and its multiple permutations, such as "found" manuscripts, frame stories, flashbacks, all of which make it possible for the mind of the listener in the external narrative to be added to the configuration of minds in the internal narrative.[11] Of course, not every story-within-a-story functions this way: quite often we forget about the presence of the listener(s). If the writer wants to prevent that from happening, she may either keep the story-within-a-story short or interrupt it regularly to draw our attention to the feelings of that listener.

For example, in Heliodorus's novel *An Ethiopian Romance* (circa 2nd century AD), as one character, Calasiris, is telling another character, Cnemon, the lengthy story of the first meeting of the two main protagonists, Charicleia and Theagenes, Cnemon keeps interrupting him to ask questions and to comment on his own feelings. Thus the third chapter of the *Romance* opens with the following exchange between Calasiris and Cnemon:

> "When the procession and the consecration were concluded …"
> "But they have not been concluded, father," interrupted Cnemon, "for your discourse has not yet made me a spectator, and I am completely overcome by eagerness to hear and to see the festivity with my own eyes. But you evade me, like the man in the story who came after the party was over; you open your theater and shut

it at the same instant." "I have no wish to trouble you, Cnemon," said Calasiris, "with matters extraneous to our subject. I was proceeding to the relevant parts of my story, the matters about which you inquired in the beginning. But since you wish to be a ringside spectator (which is proof enough that you are an Athenian) I will give you a brief account of the famous celebration, both for its own sake and for its consequences." (66)

On this particular occasion, Cnemon's interruption seems to have some narrative function: it provides a pretext for Calasiris's subsequent description of rituals involved in the Aenian ceremony of consecration to Neoptolemus (and Heliodorus generally likes an opportunity to digress and give his readers a brief lecture on a local ritual, geography, or history). On other occasions, however, Cnemon's comments and questions have no discernible narrative purpose and thus seem to be there mainly to keep us aware of Cnemon's mind as we listen to Calasiris's account of how he learned about and dealt with Charicleia and Theagenes's feelings for each other. On the whole, both Cnemon's interruptions and Calasiris's asides to him (for example, "Such was the text of the hymn, Cnemon, as well as I can recall it" [69]) serve the same cognitive function that Austen's interjection of an extra mind into a seemingly self-contained passage would serve some sixteen centuries later: they increase the mindfulness of a described social situation by increasing its cognitive complexity.

Austen herself was certainly not above using any of these techniques in her novels. In *Pride and Prejudice*, Elizabeth overhears the conversation between Mr. Darcy and Mr. Bingley; in *Persuasion*, Captain Wentworth overhears the conversation between Anne Elliot and Admiral Croft.[12] In *Pride and Prejudice*, as Elizabeth reads Mr. Darcy's letter, her mind is being forcefully inserted into the configuration of minds established by that letter. *Emma* contains instances of free indirect discourse that can be described as hypothetical focalizing. *Persuasion* features a story-within-a-story (Mrs. Smith's account of her husband's friendship with Mr. Elliot, as told to Anne Elliot), and so does *Sense and Sensibility* (Colonel Brandon's story of the two Elizas, as told to Elinor Dashwood). In other words, Austen's "mind plus" strategy used in *Northanger Abbey* to describe the first meeting between Catherine Morland and Henry Tilney, and in *Mansfield Park*, to describe Fanny's view of "Edmund's arrangements," is but one of many strategies that she employs to intensify the mindfulness of her narratives and hence the sociocognitive pleasure of her readers.

Note that, on the one hand, I am not saying anything new here. Austen scholars have already discussed most of these strategies (with the possible exception of the "mind-plus" strategy). On the other hand, I do believe that the cognitive perspective offers us several new ways of looking at these familiar phenomena.

First, it enables us to see these strategies as *connected.* That is, they all stem from the same intuitive impulse that has motivated writers of fiction since antiquity: to increase the mindfulness of their narratives by maintaining at least the third level of mental embedment in scene after scene, and, moreover, to do it by using a *variety* of mind-adding techniques. Innovation in fiction writing may originate from this need to constantly come up with new or modified ways of embedding mental states. This means that we can now consider a broad range of social situations depicted by Austen in light of how this or that situation must have allowed her to experiment with integrating minds. In other words, the cognitive perspective offers us a new tool for interpreting Austen's particular interest in certain social occasions, cultural artifacts, familial arrangements, and so forth.

Second, the cognitive perspective forces us to remain self-aware as literary critics by refocusing our attention on the process of interpretation. For if we approach *Northanger Abbey* or *Mansfield Park* as offering a pleasurable workout for our mind-reading adaptations, we realize that this cognitive workout does not end once we stop reading. It continues as we discuss the novel (even if—in fact particularly if—we disagree about what is "really" going on in this or that minds-embedding passage; for example, if you believe that Henry Crawford's perspective is more complicated than I allow it to be), and it continues still as you are reading this essay or any other critical analysis of Austen. By setting into motion the process of interpretation, *Northanger Abbey* and *Mansfield Park* open up new venues for working out our adaptations for mind-reading—for no thinking of any kind about a novel is possible without spoken or unspoken attribution of complex mental states to its characters, its author, and its readers.

University of Kentucky

<center>

NOTES

</center>

¹ Henry must have noticed that Catherine was not quite approving of his manner of speaking with Mrs. Allen: "'What are you thinking of so earnestly?' said he, as they walked back to the ball-room;—'not of your partner, I hope, for, by that shake of the head, your meditations are not satisfactory'" (15).

² For a discussion, see Vermeule, *Why Do We Care*.

³ I thus have to disagree with Tandon's suggestive argument that "Fanny forms only one apex of a triangle of peripheral observers and silent auditors, alongside her aunt—and Pug" (215). Neither Lady Bertram nor Pug is shown to be able to reflect other minds; unlike Fanny, they may "observe," but they do not *see*.

⁴ To appreciate the irony of positioning Fanny's subjectivity as superior to others, we should remember that, in Harris's words, Fanny is "the most wretchedly inarticulate of [Austen's] heroines" (6).

⁵ What Austen is doing in such scenes could be broadly described in terms of Aristotelian "reversal," although Austen's reversals are peculiar because they often seem to be concerned with mental competition among her characters: who gets the last look and most inclusive view of the scene; which character's perspective we as readers would ultimately adapt as the most interesting and informative.

⁶ That is, that we "don't distinguish" between real minds and fictional minds only to a certain, limited extent. That is, it should not be taken more broadly as meaning that we don't care about the difference between what we consider "real" and "fictional" (not that this caring ensures that we can always accurately tell the difference; see Spolsky). For, as Tooby and Cosmides observe, "when dealing with communication that is intended to be accepted as truthful, people are intensely interested in its accuracy. This rules out the hypothesis that our minds are too poorly designed to care about such a distinction. No one would read the Wall Street Journal if its pages of numbers were known to be false, or old computer manuals whose instructions were obsolete" ("Does Beauty" 12).

⁷ Professors of literature continue to find it troubling that their students treat literary characters as real people, whereas sociologists who study practices of reading outside the academic setting continue to find evidence that such a "misidentification" of fictional characters is a crucial aspect of any reading experience. As Elizabeth Long observes in her study of women's book clubs, readers' "knowledge about literary characters can have the same certainty as their experiential knowledge of other people" (156).

⁸ For a further discussion, see Zunshine, "Why Jane."

⁹ For a further discussion, see Zunshine, "1700–1775."

¹⁰ See Zunshine, "1700–1775." Furthermore, we need to differentiate between the number of minds we have to deal with within one particular scene and the overall number of minds populating a given work of fiction, which could be quite large. (Though even here we may have some interesting limitations. Based on Dunbar's research, we might predict, for example, that a novel would rarely venture beyond 150 characters.) To address this difference in his analysis of Shakespeare's plays, cognitive psychologist James Stiller introduced the concept of "time slice." As he puts it, "a new time slice [begins] whenever a character [is] stated or could be inferred to have left the stage." Thus, whereas the number of speaking characters in Shakespeare ranges from eighteen to thirty-five, the number of characters interacting within one time slice consists of four or fewer individuals, with the exception of "formal contexts like court and counsel scenes" (Stiller et al., 399).

Stiller's concept of "time slice" is a useful point of reference, but we have to adjust it when we study nondramatic fiction if only because its "entrances" and "exits" may work differently than the theatrical ones. For the analysis of these, see research in cognitive linguistics

and narratology, such as Emmott's "Frames of Reference" and *Narrative Comprehension* and Herman's *Story Logic*.

[11] For a seminal discussion of this phenomena from a related perspective of cognitive narratology, see Herman's "Genette."

[12] For a discussion of eavesdropping in fictional narratives in general and of the instances of overhearing specifically in *Pride and Prejudice* and *Persuasion*, see Gaylin.

WORKS CITED

Austen, Jane. *Mansfield Park*. 1814. Oxford: Oxford UP, 1990.

——. *Northanger Abbey, Lady Susan, The Watsons, and Sandition*. New York: Oxford UP, 1998.

——. *Persuasion*. 1818. Mineola, NY: Dover, 1997.

——. *Pride and Prejudice*. 1813. New York: Bantam, 2003.

Barnes, Jennifer. "Fiction and Empathy: Narrative Cognition in Autism." A talk in the series "Current Work in Developmental Psychology." Department of Psychology, Yale University. January 14, 2009.

Barnes, Jennifer, *et al*. "Reading Preferences and Social Cognition." Manuscript in preparation.

Bering, Jesse M. "The Existential Theory of Mind." *Review of General Psychology* 6.1 (2002): 3–24.

Butte, George. *I Know That You Know That I Know: Narrating Subjects from Moll Flanders to Marnie*. Columbus: Ohio State UP, 2004.

Cosmides, Leda, and John Tooby. "From Evolution to Behavior: Evolutionary Psychology as the Missing Link. *The Latest on the Best: Essays on Evolution and the Optimality*. Ed. J. Dupre. Cambridge: MIT Press, 1987. 277–306.

Crane, Stephen. "An Open Boat." *An Omnibus*. Ed. R. W. Stallman. New York: Knopf, 1952. 421–47.

Dunbar, R. I. M., N. Duncan, and Daniel Nettle. "Size and Structure of Freely-Forming Conversational Groups." *Human Nature* 6 (1994): 67–78.

Emmott, Catherine. "Frames of Reference: Contextual Monitoring and the Interpretation of the Narrative Discourse." *Advances in Written Text Analysis*. Ed. M. Coulthard. London: Routledge, 1994. 157–66.

——. *Narrative Comprehension: A Discourse Perspective*. Oxford: Oxford UP, 1997.

Gaylin, Ann. *Eavesdropping in the Novel from Austen to Proust*. Cambridge: Cambridge UP, 2002.

Harris, Jocelyn. "Silent Women, Shrews, and Bluestockings: Women and Speaking in Jane Austen." *The Talk in Jane Austen*. Ed. B. Stovel and L. Weinlos Gregg. Edmonton: U of Alberta P, 2002.

Heliodorus. *An Ethiopian Romance*. Trans. Moses Hadas. Philadelphia: U of Pennsylvania P, 1957.

Herman, David. "Genette Meets Vygotsky: Narrative Embedding and Distributed Intelligence." *Language and Literature* 15.4 (2006): 357–80.

——. *Story Logic: Problems and Possibilities of Narrative*. Lincoln: U of Nebraska P, 2002.

Long, Elizabeth. *Book Clubs: Women and the Uses of Reading in Everyday Life*. Chicago: U of Chicago P, 2003.

Palmer, Alan. "Intermental Thought in the Novel: The Middlemarch Mind." *Style* 39.4 (2006): 427–39.

—. "Storyworlds and Groups." *Introduction to Cognitive Cultural Studies*. Ed. Lisa Zunshine. Baltimore: Johns Hopkins UP, 2010. 176–92.

Saxe, Rebecca, and Nancy Kanwisher. "People Thinking About Thinking People: The Role of the Temporo-Parietal Junction in 'Theory of Mind.'"*NeuroImage* 19.4 (2003): 1835–42.

Spolsky, Ellen. "Why and How to Take the Wheat and Leave the Chaff." *SubStance* 94/95 30.1 & 2 (2001): 178–98.

Stiller, James, Daniel Nettle, and Robin Dunbar. "The Small World of Shakespeare's Plays." *Human Nature* 14 (2004): 397–408.

Tandon, Bharat. *Jane Austen and the Morality of Conversation*. London: Anthem, 2003.

Tooby, John, and Leda Cosmides. "Does Beauty Build Adapted Minds? Toward an Evolutionary Theory of Aesthetics, Fiction and the Arts." *SubStance: A Review of Theory and Literary Criticism* 94/95, 30.1 (2001): 6–27.

—. "The Psychological Foundations of Culture." *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*. Ed. J. H. Barkow, L. Cosmides, and J. Tooby. New York: Oxford UP, 1992. 19–136.

Woloch, Alex. *The One Vs. The Many: Minor Characters and the Space of the Protagonist in the Novel*. Princeton: Princeton UP, 2003.

Vermeule, Blakey. "Machiavellian Narratives." *Introduction to Cognitive Cultural Studies*. Ed. L. Zunshine. Baltimore: Johns Hopkins UP, 2010. 214–30.

—. *Why Do We Care About Literary Characters?* Baltimore: Johns Hopkins UP, 2010.

Zunshine, Lisa. "1700–1775: Theory of Mind, Social Hierarchy, and the Emergence of Narrative Subjectivity." *The Emergence of Mind: Representations of Consciousness in Narrative Discourse in English, 700–the Present*. Ed. David Herman. Lincoln: U of Nebraska P, forthcoming.

—. "Why Jane Austen Was Different, And Why We May Need Cognitive Science to See It." *Style* 41.3 (2007): 273–97.

—. *Why We Read Fiction: Theory of Mind and the Novel*. Columbus: Ohio State UP, 2006.