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Art and Human Development

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IN MEMORIAM

These pages are graced by the inspiration of Terry Brown (1939–2005), a remarkable scholar and friend, who moved through this world as a dancer, confident in the generative intercourse of knowledge and art.

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COMMENTARY

Advanced Social Cognition in the Literary Arts

Joan Peskin, Raymond A. Mar, and Theanna Bischoff

For the last two decades, studies on theory of mind (ToM) have almost exclusively examined 3- to 5-year-old children's ability to represent other people's mental states. Only recently have a few studies on the mentalistic understandings of 6- to 8-year-olds been published. Goldstein and Winner's chapter is an admirable attempt to begin examining the development of an advanced ToM and social cognition in older adolescents and adults. In light of their empirical research on actors in the genre of theatre, combined with recent theoretical analyses of adult ToM in the genre of fiction (Keen, 2007; Zunshine, 2006), it can be said that ToM is coming of age within the realm of the literary arts.

There is a notable difference between early ToM and the development of an advanced ToM as needed by, for instance, Method actors. Although the former develops naturally and appears to be intuitive for most children, the latter requires effortfully evaluating other characters as if through the mind of another (i.e., the character one is playing). In studying advanced ToM, we are looking at the development of expertise, which involves the extended effects of time spent in goal-directed and effortful "deliberate practice" guided by a coach or teacher (Ericsson, 2006). Goldstein and Winner frequently allude to the development of expertise and the need for better measures that will capture such expertise in adult ToM; perhaps it is research on expertise that might pro-

vide important insights and, most importantly, methodologies for the examination of advanced ToM in the literary arts.

At present, for adolescents or adults there is no standard measure of social cognitive ToM; that is, a test that taps thoughts and predictions about someone's mental states or behavior based on that person's traits or previous actions and experiences. In the absence of such a measure, there is only the limited testing of an individual's social-perceptual ToM by means of the Reading the Mind in the Eyes Test, which assesses mental state recognition based on perceptions of a person's expression portrayed in his or her eyes (Baron-Cohen, Wheelwright, Hill, Raste, & Plumb, 2001). In the study of expertise, on the other hand, the primary methodology is an expert-novice comparison in which experts and relative novices in a particular domain are provided with tasks that require effortful processing, and participants are required to think aloud as they make sense of the problem (e.g., Azevedo, Faremo, & Lajoie, 2007; Peskin, 1998; Sabers, Cushing, & Berliner, 1991; Tabatabai & Shore, 2005; Wineburg, 1991). Researchers then conduct qualitative analyses of the resulting protocols from both groups. It seems that this methodology might be useful for tapping thoughts indicative of social cognitive ToM by comparing expert and novice actors thinking aloud about a new and undelineated character that they must portray.

Another difference between investigations of early ToM and later expertise in advanced ToM is that the former appears to be more domain general, whereas the latter might be somewhat more domain specific. For young children, there appears to be conceptual coherence in the development of mentalistic representational ability that results in the acquisition of a whole host of related understandings and concomitant behaviors at approximately the same time (Schneider, Schumann-Hengsteler, & Sodian, 2005). For instance, when young children begin to represent that someone might not know what the child knows, they also begin to demonstrate related behaviors and abilities: understanding the point of deception in story books (Peskin, 1996; Sodian, 1991), assigning roles during pretend play (Astington & Jenkins, 1995; Jenkins & Astington, 2000), and demonstrating the ability to keep a secret and the ability to play hide and seek (Peskin & Ardino, 2008).

Expertise, on the other hand, has been shown to be mostly domain specific. It involves the development of a cohesive semantic network of concepts that have many strong links within and between them, allowing experts to see large and meaningful patterns. Studies on expertise have shown that chess experts, for example, with their remarkable memory for chess positions, do not have a better memory in general (Schneider, Gruber, Gold, & Opwis, 1993). Their structured set of

concepts enables them to recognize patterns specific to their domain of expertise and thereby extract a level of meaning that a relative novice is not able to do. These findings might provide reason to question Goldstein and Winner's implication that by studying the kinds of advanced levels of ToM that are fostered in acting, we can learn about expertise in sociocognitive skills and how these skills can be trained, for it might be that advanced sociocognitive skills are context dependent. For instance, Wineburg (1991) has shown that history experts, but not novices, represent the mental states of the author of a historical document, and similarly, Zunshine (2006) suggested the importance of representing the mental state of the narrator when reading fiction, in particular the unreliable narrator, such as Humbert in Vladimir Nabokov's *Lolita* (1955). In both of these domains, effortfully representing the perspective of the source of the information is an important component of developing expertise. However, does this mean that the trained historian will be more likely to represent the mental state of Humbert when reading fiction? Or that after actors have had intensive Method training in thinking about the mental states of various characters, they will be more likely to represent the mental states of the author of a historical text?

These are important questions stimulated by Goldstein and Winner's chapter, and they extend well beyond the domain of acting into social cognition in the literary arts in general. Goldstein and Winner examined just one genre, theatre, and within that genre only studied the perspective of the "agent," or actor. But what about the minds of the playwright and the audience? Or, in different genres, the writer and the reader? In the remainder of this commentary, we will pose questions and discuss the somewhat limited research on social cognition in the literary arts by first examining writers, then audiences, and then finally returning to actors.

WRITERS

The crucial role played by mental state attribution in constructing a story or play was elucidated by Bruner (1986):

[A] story must construct two landscapes simultaneously. One is the landscape of action: agent, intention or goal, instrument, something corresponding to a "story grammar." The other landscape is the landscape of consciousness: what those involved in the action think, know, or feel, or do not know, think, or feel. The two landscapes are essential and distinct: it is the difference between

Oedipus sharing Jocasta's bed before and after he learns that she is his mother. (p. 14)

Constructing an effective landscape of consciousness requires the representation of many characters' mental states. Fiction writers are, essentially, inventing people whose beliefs, thoughts, values, and so on are dissimilar from their own. Authors cannot possibly have experienced every situation that their protagonists, however similar to themselves, have encountered (otherwise the text would be not fiction but, rather, autobiography). For many writers of fiction, the narrator or central protagonist is very different from the author, for example Timothy Findley's *Not Wanted on the Voyage* (1996) and Anna Sewall's *Black Beauty* (1877), narrated by a cat and a horse, respectively. The male author Wally Lamb published his famous novel *She's Come Undone* (1992) at age 42, which describes the coming of age of a young woman. Additionally, novels, short stories, and plays usually consist of multiple characters, and fiction writers must write considering the perspective of each of them, crafting not only appropriate actions but also reactions. They must take into account shifts in characteristics such as age, experience, character traits, knowledge, gender, sexual orientation, socioeconomic status, and political orientation for each and every character in their text.

Fiction writers not only have to consider the mental states of their characters but also must predict and understand the minds or thoughts of readers as they encounter the text. Although writing instruction is not as cleanly delineated as the Technique versus Method schools in acting instruction, a common way of teaching writing is the Workshop method, in which a group of writers exchanges texts and then each text is discussed individually. In some versions of the Workshop method, writers are not allowed to speak during the discussion of their own texts, the rationale being that, unlike with spoken communication, published writers cannot change their message to be better understood. In this way, writers are forced to see whether readers interpret the text in the way it was intended. This method of teaching writing may actually help develop ToM in fiction writers, as authors become conscious of discrepancies between what they meant and what they said, and what they intended and how it was received.

Furthermore, just as Method actors are taught to evaluate other characters through the minds of their own particular character—not only in terms of their immediate interaction but also in terms of the entire history of these relationships—so must effective writers think about their characters in a multitude of situations. In creative writing

classes, one commonly used exercise is having writers complete a “questionnaire” of facts about their characters (Gotham Writer's Workshop, 2003). They must provide details possibly absent from the text but that help develop the character in the mind of the author such that he or she knows the character intimately. For both writers and Method actors, this involves time spent engaging in a long-term psychological analysis of their characters and their dispositional mental states. In a novel recently published by Theanna Bischoff (2008), one of the authors of the present commentary, the protagonist has breast cancer, and Bischoff interviewed numerous women diagnosed with cancer in order to construct the complexities involved in her protagonist's perspectives, beliefs, desires, and emotions.

Possibly because this psychological analysis is effortful, authors sometimes “reuse” characters, for example in a book series, or a supporting character from a previous novel may become a more central character in another. In a recent media interview, author Jodi Picoult commented that “it's always great fun to bring a character back, because you get to catch up on his/her life; and you don't have to reinvent the wheel—you already know how he speaks, acts, thinks” (Allen & Unwin, n.d.).

Goldstein and Winner predict that actors in general have more advanced ToM, but that this difference is likely even greater for Method actors. This may be similar for writers, as well—all may have more advanced ToM than the general population, but certain kinds of writers, that is, writers of certain genres, may be *most* adept. Leaving questions of causal directionality aside, one might hypothesize more developed social cognition in writers of genres in which characterization is paramount, for instance novelists, playwrights, and screenwriters, as opposed to poets. However, although most poets spend less time on characterization, they also might be more dysphoric than writers of other genres (Kohányi, 2005), and, as noted by Goldstein and Winner, dysphoric adolescents are better able to identify the mental states of others (Harkness, Sabbagh, Jacobson, Chowdrey, & Chen, 2005), as assessed by performance on the Reading the Mind in the Eyes test (Baron-Cohen et al., 2001). This might be because dysphoric adults are more sensitive to stimuli, including social cues, and are inclined to ruminative introspection (Gleicher & Weary, 1991). Thus, it is possible that poets may outperform other writers on this task. Fiction writers, however, appear to be more driven by negative emotions than other successful professionals (i.e., scientists), and could thus possibly outperform matched nonwriters (Djickic, Oatley, & Peterson, 2006). These remain open avenues for future research.

In addition, different subgenres may require more ToM demands on the part of writers than others. For instance, within the genre of fiction, detective or crime stories often involve an unexpected ending, and writers must be acutely aware of their readers' knowledge states and biases and the inferences that the readers are likely to make in order to purposefully lead them in the wrong direction. The hallmark of other subgenres, typically those involving humor or horror, is that they are written so that the reader is aware of something that a protagonist does not know. And, finally, another subgenre with huge demands for perspective taking is that of the novel written with shifting points of view. For instance, Barbara Kingsolver in *The Poisonwood Bible* (1999) shifted narration between five female family members.

Empirical research exists to support the idea that fiction writers might possess an elevated capacity for social understanding. Taylor, Hodges, and Kohányi (2002) collected a sample of 50 fiction writers who had been writing for at least 5 years and administered a variety of measures including a self-report measure of empathy, the Interpersonal Reactivity Index (Davis, 1983). This measure includes four subscales: Empathic Concern (emotional empathy), Perspective-Taking (cognitive empathy), Fantasy (projection of the self into fiction), and Personal Distress (vulnerability to negative affect). Fiction writers reported higher scores on all of these subscales compared to the population norms, and by a large margin. Fantasy exhibited by far the largest difference, with both male and female writers reporting scores over two standard deviations higher than the norm. Fantasy was closely followed by Perspective-Taking and Empathic Concern, with Personal Distress scores the least different from the norm. Personal Distress, however, is also the subscale that is least likely to measure something traditionally considered to be a component of empathy (Mar, Oatley, Hirsch, de la Paz, & Peterson, 2006). A weakness of this study, of course, is that it relies on self-report. An interesting follow-up would be to replicate these results using an established paradigm for the study of individual differences in social cognition or social perception (Ickes, 1997). Of course, as with many of the previous studies mentioned before, the design precludes any causal inferences. Even if it is the case that it is highly empathic individuals who tend to later become fiction writers, this still seems to be an interesting result, one that tells us something about the psychological richness of the writing craft and of literary works.

AUDIENCES (READERS AND VIEWERS)

Bruner (1986) wrote that literary texts

are about events in a "real" world, but they render that world newly strange, rescue it from obviousness, fill it with gaps that call upon the reader, in Barthes' sense, to become a writer, a composer of virtual text in response to the actual. (p. 24)

Filling in the gaps has been seen as the writers' exploitation of the reader's readiness to attribute mental states (Zunshine, 2006). For example, in Virginia Woolf's *Mrs. Dalloway* (1925), the reader is told that Peter thinks that Clarissa has "grown older" but then later that Clarissa notices that Peter is "positively trembling." Readers are forced to construct their own meaning, in this instance, inferring that "he must be excited to see her again" in order to create emotional cohesion in the narrative (Zunshine, p. 22). Zunshine argued that with our evolved cognitive capacity to represent the mental states of others in our social interactions, as we read books we are "intuitively" connecting people's behavior to their mental states (see also Mar & Oatley, 2008; Mar et al., 2006).

There are interesting questions about when this process is intuitive and effortless and when it is not. The creation of what Bruner (1986) called "gaps" or spaces for the reader appears to be effortful for writers. A commonly repeated phrase in Bischoff's writing classes, for example, was "Show, don't tell." It is better, for example, to show a character behaving in an angry manner than to merely tell one's reader, "X was angry." There may be many instances when such processes are effortful for readers, too. Considerations about an unreliable narrator, for instance, or having to track characters' embedded mental states, or think about what the author is intending us to think or feel, involve metarepresentational ability and concomitant effort. For instance, the following comments were made by 17-year-old students thinking aloud when reading a poem: "Maybe the poet is indirectly disturbing the reader by cutting the word in half," or "I think the author does want the reader to take note of how it's broken up, because it is very, very unusually broken up" (Peskin, in press).

Just as readers represent the mental states of characters and occasionally the intentions of the writer, so must theatre audiences engage in mindreading as they view the actions of the characters. One could argue that a hallmark of many plays is that the characters find themselves in some sort of predicament or misunderstanding that requires resolution. For instance, in the play *Cyrano de Bergerac* (Rostand, 1897), the female lead Roxane remains unaware that the man wooing her, who she believes to be the nobleman Christian, is actually Cyrano, whom Christian has hired. Likewise, Christian remains unaware that Cyrano has fallen for Roxane and wants her for himself. Keeping track

of disparities between what each of the different characters is thinking is also the hallmark of many situational comedies on television. Park (2001) claimed, "Even television comedy programs are based on metacognition.... For instance, I was watching a popular American sitcom and heard sentences such as 'Well, they don't know we know that they know,' and 'Do you want me to want you to want it?'" (p. 73). This involves several layers of understanding of mind; viewers must track not only the minds of different characters but also different characters' understandings of other characters' minds. What do characters A and B each know about the situation? What does the viewer know about the situation? What does character A know about what B knows, and vice versa? And how are these understandings different?

A question for future empirical work on the social cognition of consumers of the literary arts is whether it is more cognitively demanding to think about characters' mental states when viewing a drama or when reading fiction. In fiction, although readers must make inferences when writers "show" rather than "tell," there are also frequent instances of "voiceovers" when the mental states of the protagonists—their beliefs, intentions, emotions, and desires—are explained to the reader. For theatre audiences, on the other hand, these explanations are absent, except when actually stated by the characters or the occasional times when a play incorporates a narrator or a chorus. In theatre, however, actors mediate between playwright and consumer. Theatre audiences are able to "read" the facial expressions and body language of the actors, visual embodiments that are not available to the reader of a novel or a play.

Goldstein and Winner mention that adult fiction readers score higher on the Reading the Mind in the Eyes Test than nonfiction readers (Mar et al., 2006), but there is also research that has some bearing on the social cognition of film- and theatregoers. Viewing a dramatic production is somewhat akin to viewing someone pretending to carry out an action, and neuroimaging research has demonstrated that the viewing of pretense engages the brain differently than when simply watching human action. German and colleagues (German, Niehaus, Roarty, Giesbrecht, & Miller, 2004) examined neural responses in participants using functional magnetic resonance imaging (fMRI) as they viewed videos of people either engaging in simple actions (e.g., placing a book on a shelf) or miming that same action (e.g., pretending to put an invisible book on a shelf). Importantly, no specific instructions were given to participants; they were not directed to engage in mental inference or empathy. Compared to watching real actions, watching pretend actions led to greater engagement of a number of components of the social cognitive brain network. This implies that, as an audience

member, watching actors play out a fiction may actually lead to more intense social processing than watching the actions of real persons.

A study by Mar and colleagues (Mar, Kelley, Heatherton, & Macrae, 2007), however, seems to suggest quite the opposite. Participants in this study viewed either real people or cartoon versions of the same people engaging in the exact same actions. The cartoon footage was digitally "painted" directly onto the live footage so that the biological motion being portrayed was identical for both cases. Using fMRI, it was determined that during the viewing of real persons (without instructions to engage in mentalization), certain components of the social cognitive network were more active compared to the viewing of cartoon persons (including those areas identified by German et al., 2004). Thus, in this study, the more fictive presentation of action (i.e., the cartoon actors) led to less engagement of social-processing brain areas. This appears to contradict the findings of German and colleagues, in which the more fictive actions (i.e., pretense behaviors) resulted in greater social processing. There are, however, key differences between these two studies. To begin, in the study by Mar and colleagues (2007) both conditions (cartoon and real) involved actors (the footage was derived from a film, *Waking Life*; Linklater, 2001). Also, although a cartoon actor is certainly more "pretend" than a real actor, it does not necessarily involve a greater degree of pretense in the same way as watching a real person mime an action. It may be that the social-processing network in our brain is specifically attuned to the actions of real persons (Mar et al., 2007) and must work harder to understand the behaviors of these persons when they are based on pretense (German et al.). What both of these studies demonstrate is that activation of the social-processing network spontaneously occurs during the viewing of actors, without instruction or guidance. An interesting question is whether an audience's social-processing abilities might be taxed to a lesser degree when watching more proficient actors, whose behaviors may be less obviously an act of pretense.

ACTORS

Finally, to return to the social cognition of the actors themselves, evidence that actors may have elevated social skills (cognitive and emotion based) can be found throughout the developmental literature. Children who engage in pretense or pretend play are known to have better ToM abilities and social competence, even after taking into account verbal intelligence and socioeconomic factors (Garner, Curenton, & Taylor, 2005; Seja & Russ, 1999; Taylor & Carlson, 1997).

These studies, however, like much of the research cited by Goldstein and Winner, do not allow for causal inferences, that is, we cannot conclude that this sort of play is what drives better social competence. It could easily be that socially skilled children are simply more likely to act out fantasy play.

There is, however, an experimental study that does not suffer from the aforementioned shortcoming and that lends support to the notion that training in drama results in social growth. Schellenberg (2004) randomly assigned 6-year-old children to an intensive 36-week program in either music (keyboard or voice) or drama, or to a no-lesson wait-list control (this group received keyboard lessons the following year). Class sizes were small (six children per class), and each child had one instructor for the duration of the course. Their instructors were professional music or drama teachers, whose primary income came from teaching. Prior to beginning the course, all children were evaluated by their parents using the Parent Rating Scale of the Behavioral Assessment System for Children (BASC; Reynolds & Kamphaus, 1992). The BASC measures both maladaptive behaviors (hyperactivity, aggression, anxiety, depression, atypicality, and attention problems) and adaptive behaviors (adaptability, social skills, and leadership). This measure was then administered a second time, following the course, to evaluate changes in these behaviors as a result of random assignment to the different types of lessons. Schellenberg (2004) found that children who completed the drama lessons exhibited an improvement in adaptive social behavior, but those who took music lessons (or had no lessons) experienced no such improvement. The amount of improvement seen in children who completed the drama lessons over those in the other groups was not small, but moderate in magnitude, equivalent to roughly half a standard deviation (Cohen's $d = .57$). No differences in maladaptive behaviors were observed.

The fact that drama lessons led to an increase in adaptive social behaviors, including social skills, is certainly supportive of the hypotheses put forth by Goldstein and Winner. This study, however, does not test Goldstein and Winner's more refined hypotheses regarding different methods for drama instruction (Technique versus Method) and different forms of social growth (ToM versus empathy). Given the age of the participants, it seems unlikely that the drama instruction in this study involved any explication of the Method approach. A final question that remains unanswered is how age might interact with the hypotheses of Goldstein and Winner. It may well be that the differential facilitation of ToM versus empathy based on different forms of drama instruction may pertain only to adults.

In the above sections we have primarily discussed social cognition in terms of the representation of others' mental states. But in describing actors, Goldstein and Winner also examine social cognition in terms of emotion, in particular empathy. As Goldstein and Winner discuss, it is questionable whether actors exhibit greater empathy, and a recent study might have some relevance for this discussion. In a study of celebrities by Young and Pinsky (2006), successful actors ($N = 59$) were found to score higher than the general population on an established measure of narcissism. Because narcissism is known to be negatively associated with empathy (e.g., Watson & Morris, 1991), this places any possible elevated empathic ability of actors into question. It is important to note, however, that this study examined only successful actors, and their finding of narcissistic tendencies may not apply to less successful practitioners.

CONCLUSION

The relationship between acting and advanced social cognition is not only an unexplored area but also one that exists at the intersection of various other research topics that are similarly uncharted. How writers, audiences, and actors consider the mentalistic states of characters in negotiating Bruner's "gaps" and how these often effortful considerations might foster advanced social cognition (in both the cognitive and emotional domains) are still unclear. Building on Goldstein and Winner's chapter, we have attempted to provide questions, suggest alternative methodologies, and point out directions for future exploration in the hope that advanced ToM and the study of emotion in the literary arts might become a robust area of research in the future.

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