

**The Power of Narratives in Shaping Social Cognition****تأثير الروايات في تحسين الإدراك الاجتماعي****Dr. Houda BOUMEDIENE**Department of English-University of Laghouat (Algeria), [h.boumediene@lagh-univ.dz](mailto:h.boumediene@lagh-univ.dz)

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**Abstract**

The relationship between narratives and social cognition has been widely debated, with some research suggesting that narratives enhance social cognition through interaction with story worlds and characters or by imparting social knowledge. While there have been studies linking exposure to narratives with social cognition, the validity of these findings has been questioned due to conflicting results. This review evaluates existing research and highlights the need for a deeper understanding of the diverse factors involved, including specific narrative features, individual reader differences, and various aspects of social cognition affected by reading narratives. The goal is to develop a research agenda to determine the circumstances under which exposure to narratives can benefit social cognition and for whom, by focusing on these factors.

**Keywords:** Agenda, narrative features, narratives, reading, social cognition.

**الملخص:**

تم تحليل العلاقة بين الروايات والإدراك الاجتماعي في العديد من الدراسات، حيث أشارت بعضها إلى أن الروايات قد تعزز الإدراك الاجتماعي من خلال تحديث المعرفة والتفاعل مع العالم الخيالي والشخصيات في القصة. لكن على الرغم من وجود بعض الدراسات التي تصلح بين التعرض للروايات والإدراك الاجتماعي، فإن النتائج المختلفة والمتضاربة لديها شكوك على دقة هذه النتائج. هذا البحث يحل البحوث الحالية ويركز على الحاجة إلى فهم أعمق للعوامل المختلفة المعنية، مثل الميزات السردية واختلافات القارئ الفردي والإدراك الاجتماعي المختلف. الهدف هو تطوير أجندة بحثية لتحديد الظروف المناسبة التي قد تؤدي إلى تأثير إيجابي في الإدراك الاجتماعي عند قراءة الروايات.

**الكلمات المفتاحية:** الروايات، الإدراك الاجتماعي، الميزات السردية، أجندة، التأثير الإيجابي.

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## **1. INTRODUCTION**

The unique ability to communicate through narratives is one of the defining traits of humanity (Boyd, 2009, p. 173). They are present in our lives in various forms, such as ancient myths, bedtime stories, narrative commercials, and literary fiction. This widespread use of narratives has sparked interest and discussions among readers, writers, and scholars about their function and purpose. Some have argued that exposure to narratives can improve our ability to understand others, surpassing their role as mere entertainment and potentially affecting both personal lives and society as a whole (Mar, 2018, p. 460).

In this overview, we will examine the existing empirical literature on the relationship between reading habits and social-cognitive abilities in the long term, as well as the direct benefits of exposure to narratives. Our focus will mainly be on research conducted in neurotypical populations. Despite significant progress in the field in recent years, there are still several open questions and challenges that require further investigation. By identifying and critically evaluating these, we aim to lay the foundation for future studies that will deepen our understanding of the connection between narrative reading and social-cognitive abilities.

## **2. Conceptual Background**

The notion that exposure to narratives can enhance our social-cognitive skills has been proposed by experts in psychology (Mar, 2018, p. 462), philosophy and literary studies (Zunshine, 2003, p. 280), and can be traced back to the ancient Greek philosopher Aristotle's *Poetics*, written approximately 335 BC. Before we discuss the reasoning behind these scholars' claims, it is necessary to clarify the definitions of narrative and social cognition.

## **3. Narrative**

The definition of what makes a narrative and what does not has not been a topic of much discussion among narratology experts (Eekhof, 2020, p. 198). A basic definition of a narrative is typically a depiction of events happening in a specific order in time (Apperly, 2010, p. 213). More complex definitions also emphasize the subjective aspect of narratives, meaning that they don't just depict external events but also involve a "subject of consciousness" who experiences the story events. This subjectivity is conveyed to the reader through techniques of viewpoint or perspective, which are linguistic means (such as verbs of cognition and descriptions of emotions) used to give readers access to the inner thoughts and feelings of the characters in the narrative (Eekhof, 2020, p. 199). In this way, narratives are seen as being about human experience and the challenges of human intentions (Bruner, 1986, p. 122).

The term "narrative" is often used interchangeably with "fiction" and "literature," but these terms actually describe different aspects of a narrative. A narrative can be fictional, like a fairytale or romance novel, or non-fictional, like a biography, and it can also be considered literary, like an award-winning novel, or non-literary, like fan fiction. The distinction between literary and non-literary works is often based on social constructs, such as expert ratings or author prestige. However, some scholars argue that the literary quality of a text can be determined by its use of unconventional and stylistically unique language, known as foregrounding. This style of writing draws attention to the formal elements of the text rather than its content.

For clarity, we will use the term "narrative" to describe any text that portrays a series of events experienced by a conscious entity, regardless of its level of fictionality or literary merit. The term "non-narrative text" will be used to describe text that does not depict a series of events but instead is informative, such as an essay or encyclopedia article.

#### **4.Social Cognition**

Social cognition involves understanding and making sense of human experiences and focuses on the cognitive abilities people use to understand others and themselves. Empathy and theory of mind are two critical processes within social cognition that have been extensively studied and often examined in relation to narratives. Empathy is a complex and multifaceted concept, with various definitions, and its exact meaning is still a subject of debate. Some define empathy as a shared experience of someone else's feelings while being aware that they are not our own (DeVignemont, 2006, p. 438), while others view it as a direct, non-inferential awareness of others' emotions, sensations, and psychological states without necessarily sharing them (Gibbs, 2019, p. 81).

The ability to understand the mental states of others and predict their behavior is known as the theory of mind, mindreading, mentalizing, or folk psychology. It requires more cognitive effort than empathy and has been studied extensively. Some researchers argue that this ability arises through the use of a set of rules that form a folk-psychological theory, while others believe that it arises through a process of simulation in which individuals imagine themselves in the place of others.

#### **5.The Impact of Narratives on Social Cognition**

With these definitions in mind, the relationship between understanding narratives and social cognition becomes evident. Both involve the ability to comprehend and interpret the thoughts and experiences of others, whether it be through reading about characters in a story or interacting with people in real life.

This connection provides the foundation for various theories that propose that exposure to narratives can enhance social cognitive abilities. These theories are based on either the activation of social cognitive processes while reading a narrative (process-based theories) or the transfer of information through the narrative's content (content-based theories). We will now examine each of these theories.

Process-based theories propose that the same cognitive mechanisms used to understand the mental states of real people are also used when comprehending the minds of fictional characters in narratives. This idea is sometimes referred to as the "Panksepp-Jakobson hypothesis." Reading narratives is thought to engage our real-life social-cognitive abilities, and researchers such as (Zunshine, 2003, p. 283) and (Bruner, 1986, p. 127) have posited that this occurs through the use of mindreading and theory of mind skills, as well as by running mental simulations of the emotions present in the plot.

In another view, some scholars have proposed that social cognition actually involves the use of narrative processes. According to these ideas, creating situation models during narrative comprehension is similar to the process of mindreading (Apperly, 2010, p. 2018). Additionally, (Chow, 2015, p. 1496) suggests that the reconstruction of minds in narratives is actually a normal part of our social interactions. The repeated use of social-cognitive processes during narrative reading can also strengthen these abilities. The SPaCEN (Social Processes and Content Entrained by Narrative) framework (Mar, 2018, p. 463) supports the idea that narratives can improve social cognition if they accurately depict the social world and repeatedly activate social processes that can be developed through practice. For example, reading novels that focus on romantic relationships could improve our theory of mind by requiring us to understand the beliefs, intentions, and emotions of the characters. This cognitive exercise could potentially lead to the improved real-life theory of mind abilities.

The other type of theory, known as content-based theories, suggest that narratives aid social cognition by imparting social knowledge. For example, through narratives, one may be exposed to situations they would not typically experience, providing them with a range of new social experiences and knowledge (Gibbs, 2019, p. 83). As per the SPaCEN framework (Mar, 2018, p. 466), narratives can enhance social cognition if they comprise useful, learnable, and applicable knowledge about the social world. For instance, reading a story about a break-up could offer insights into the dynamics of human relationships, which could help in better understanding personal relationships.

It's possible that these two methods, the elicitation of social processes and the transmission of social knowledge, work together. However, one could argue

that the elicitation of social processes is what sets narratives apart from non-narrative or expository texts. Expository texts can also contain social information, but narratives may have an advantage in that they can activate social processes.

Most theories regarding the relationship between narratives and social cognition do not provide a clear understanding of the time frame for these effects, (Mar, 2018, p. 468) and the SPaCEN model, however, suggests that sustained and prolonged exposure to narratives is necessary for lasting impact. There is also a lack of clarity in most theories as to when these effects on social cognition can be expected during a reader's life or development. Claims have been made about the special role of literary and fictional narratives, with some theorists proposing that the use of stylistic devices in literature elicits deeper processing, reflection, and emotional responses. (Djicic, 2014, p. 502) suggests that the literary elements in a text can temporarily disrupt a reader's personality and emotional system, allowing for changes brought about by the narrative content.

Additionally, some scholars have posited that the complexity of literary texts results in enhanced social-cognitive abilities. These texts are believed to require more effort and thought during the processing stage, leading to improved abilities. For instance, literary fiction is often seen as more intricate, vague, and unexpected, which forces the reader to engage in more social inferencing (Eekhof, 2020, p. 198). Others suggest that the use of literary styles like metaphors and figures of speech increases social-cognitive complexity by making the reader aware of the narrator's intentions and expectations (Gibbs, 2019, p. 85). These theories propose that literary narratives have more social-cognitive complexity, providing readers with a better workout for their social cognition, resulting in greater benefits compared to non-literary narratives.

Others have focused on the role of fictionality, claiming that fictional narratives create a beneficial separation from reality (Djicic, 2014, p. 502). This "protective fictionality" allows readers to empathize with the narrative experiences without facing real-life consequences

In conclusion, there have been suggestions that exposure to narratives can enhance social cognition by promoting the activation and strengthening of social-cognitive processes, as well as by transmitting relevant social information. Additionally, literary style and fictionality are seen as contributing factors to the effect. Recent research has started to examine these hypotheses, looking at the connections between reading habits and social-cognitive abilities in correlational and longitudinal studies, and examining the causal impact of exposure to narratives through experiments and interventions.

## **6.Experimental Evidence:**

### **6.1. Longitudinal Research**

In exploring the relationship between narrative reading and social-cognitive abilities, some researchers have studied the connection between reading habits and social cognition. They have found evidence of a positive relationship in young age groups, both in cross-sectional and longitudinal studies. To measure exposure to narratives, caregivers are often asked how often they read books to the child, or a recognition test is used to measure their ability to recognize authors, book titles, and phrases. These scores are thought to reflect exposure to print and be positively related to children's empathy levels. For example, a study by (Mar, 2018, p. 462) measured mothers' recognition of key phrases and authors in children's books, which was then linked to their children's empathy levels, even after controlling for the mothers' education levels.

It is important to note that research has shown a positive relationship between reading habits and social cognition in young age groups such as preschoolers. This relationship is usually measured either by asking caregivers how often they read books to the child or by using recognition tests that assess the caregiver's ability to recognize author names, book titles, or phrases from a list of existing names and foils. The scores on these tests are thought to reflect exposure to print.

Studies have found that the relationship between exposure to narratives and social-cognitive development in children cannot be explained by the parent's general literacy. Only the ability to recognize children's book titles and authors, but not adult book authors, is related to theory of mind performance in 4- to 6-year-olds. However, it is challenging to separate the contribution of narratives from the accompanying social interaction between the child and caregiver, as exposure to narratives in young children is often embedded in a highly social context. Research has shown that not only the frequency of joint book reading but also the frequency and variety of mothers' mental state talk during reading is related to performance on false belief tasks.

In short, the relationship between narrative reading and social-cognitive abilities in children has been explored in various studies. The results of these studies have been mixed, with some finding a positive relationship between reading and social cognition, while others have not found a significant relationship. The association has been studied in preschoolers through recognition tests and cross-sectional and longitudinal studies, but the contribution of the narratives per se is difficult to disentangle from the surrounding social interaction between the child and caregiver. Studies on children who can read by themselves might provide a clearer picture of the relationship between narrative

exposure and social cognition. However, research on social-cognitive development in older children and adolescents has received less attention. Some recent studies have found a relationship between exposure to fiction and self-reported perspective-taking tendencies, but not with performance-based measures of emotion recognition. It is suggested that the lack of a clear relationship between school-aged children and adolescents may be due to the fact that most of their reading takes place in an educational context. A longitudinal study found that reading for pleasure outside of school was associated with prosocial behavior in young children (Demulder, 2021, p. 205).

In short, some studies have examined the relationship between adult reading habits and social-cognitive abilities. For instance, (Mar, 2018, p. 470) found that being exposed to fiction, as measured by the number of correctly recognized names of fiction writers, was positively linked to scores on the Reading the Mind in the Eyes Task (RMET). This task, which involves matching words to pictures, measures a person's ability to understand emotions from pictures of eyes. The results suggest that exposure to fiction can improve a person's ability to recognize emotions. On the other hand, exposure to non-fiction was negatively related to performance on this task and another task that measures interpersonal sensitivity, implying that exposure to non-fiction may have a negative impact on social-cognitive abilities compared to exposure to fiction.

The available evidence suggests that exposure to narratives, particularly fiction, has a positive relationship with social-cognitive abilities in preschoolers and adults. While the evidence is mixed for school-age children and adolescents, there seems to be a link between noncompulsory reading for pleasure and social cognition. However, it is important to note that these findings do not necessarily prove a causal relationship between reading narratives and social cognition. It could be that socially competent individuals are more likely to turn to fiction reading, rather than reading fiction directly leading to improved social-cognitive skills. To establish a causal relationship and further support the social-cognitive hypothesis of narrative reading, experiments and intervention studies are needed.

## **6.2. Quantitative Research**

The basic idea behind most experimental studies that aim to determine the effects of reading narratives is that if reading stories results in an improvement of social-cognitive abilities, then performance in these skills should increase after being exposed to narratives but not after being exposed to non-narrative texts or no exposure at all. To investigate this, some studies have used interventions to examine the impact of narratives on social cognition. In these studies, participants in the intervention group are repeatedly exposed to narratives over a

prolonged period of time (for example, a week or several months). The social-cognitive abilities of participants are measured both before and after the intervention, and improvements in these skills are compared between the intervention group and a control group.

So far, intervention studies have mostly focused on the social-cognitive effects of narratives in young populations, as these types of studies are easier to implement in an educational setting. For instance, a study conducted in German after-school childcare centers found that emotional vocabulary and ability to understand and identify emotions improved in 7- to 9-year-olds after eight 90-minute reading sessions. A review article by (Chow, 2015, p. 1497) discussed eight additional studies that showed the positive effects of narrative interventions, also known as bibliotherapy, on various measures of social cognition and prosocial behavior in children between the ages of 5 and 15. However, the downside of these intervention studies is that exposure to narratives is often accompanied by activities such as discussion groups or creative exercises, making it challenging to determine the exact contribution of the narrative exposure.

Another way researchers have investigated the effects of reading narratives on social cognition is through experiments that compare the social-cognitive abilities of participants who were exposed to a particular type of narrative with those who were exposed to other types of texts or no text at all. This approach was used in a study by (Djikic, 2014, p. 501), where participants who scored low on the openness personality trait showed an increase in self-reported cognitive empathy after reading a literary story, but not after reading an expository text that was similar in content, complexity, and length. The results suggest that individuals who are less open to new experiences can benefit from reading literary narratives that offer exposure to other people's perspectives, leading to an increase in self-reported empathic abilities.

The strongest evidence for the impact of reading narratives on social cognition comes from intervention studies and a few experiments that have used measures other than the Reading the Mind in the Eyes Test. However, not all studies have produced positive results, and the inconsistent findings suggest the need for more specific research. It is proposed that the conflicting outcomes may be due to the assumption that all narratives have the same impact on all readers, and that different narratives and readers may have different effects on social cognition. To better understand the social-cognitive potential of narratives, it is necessary to examine the text, reader, and social-cognitive processes involved. Future research should focus on answering open questions and addressing challenges in these areas to determine the conditions under which narratives have



a positive impact on social cognition.

### **6.3. Questionnaires**

- What features of narratives contribute to their potential for improving social cognition?

The exact textual characteristics that contribute to the positive effects of reading narratives are not well understood. Most studies have focused on broad concepts such as literariness and fictionality, but have struggled to draw clear conclusions due to the confounding of various textual dimensions and poor matching of the texts used in different conditions. The approach of comparing literary fiction to popular fiction has been criticized and further research is needed to uncover the intrinsic characteristics of the texts that drive the positive effects.

There is growing evidence that certain narrative characteristics contribute to the social-cognitive potential of narratives. For instance, the representation of the inner thoughts and feelings of characters has been found to play a role. In a study by (Chow, 2015, p. 1499), it was discovered that the benefits of reading literary fiction over popular fiction were mediated by the extent to which the text provided in-depth interpretations of behavior in terms of mental states. Other factors that may be important include viewpoint or perspective markers and descriptions of mental states. It remains unclear, however, the extent to which mental state descriptions are most beneficial to social cognition, and if their absence in a complete narrative may be more constructive by requiring readers to use their mindreading and inferencing abilities. A study with 4-year-olds provided some evidence for the latter, as children who were exposed to stories without mental state descriptions performed better on false-belief tasks compared to a group who were exposed to the same stories with mental state descriptions included.

- Which groups of individuals are susceptible to the positive effects of reading narratives?

The impact of exposure to narratives likely varies based on both the characteristics of the text and the reader, as well as the interaction between the two. Some researchers have even suggested that the match between the reader and the text is more important than the text itself. However, previous studies have mainly focused on controlling for individual differences in trait empathy and print exposure among adult readers, or differences in demographic variables such as age and parental income among children. There is a need for further research on individual differences among readers and their susceptibility to the social-cognitive effects of narratives.

The impact of narrative exposure on social cognition may also be influenced by the reader's age and social-cognitive development. The authors (Mar, 2018, p. 471) believe that readers' ability to change their social cognition may vary with age. Larger effects of narrative exposure can be expected in children and adolescents who are still in the process of developing their social cognition. Although adults may have limited potential for improvement, narratives may still affect those with higher room for development, such as those with an autism spectrum disorder. To better understand how narratives can improve social cognition at different stages of life, more research is needed to determine which aspects of social cognition are most receptive to change at different ages. Additionally, it has been shown that adults can still improve their empathy skills through training activities.

Individual differences play a significant role in the connection between reading narratives and social cognition. For instance, one study found that the positive effects of reading literary fiction over non-fiction were only present in readers with low scores on the openness dimension of the Big Five Inventory, but not in those with high scores (Djikic, 2014, p. 503). Another study showed that readers with a highly avoidant attachment style experienced more emotional change after reading literary fiction than a matched expository text, while the difference between the two texts was not significant for those with a less avoidant attachment style (Djikic, 2014, p. 500). Furthermore, a study that looked at the long-term links between reading habits and social cognition found that after controlling for various individual differences, a positive association between exposure to narrative fiction and empathic concern was only present in high school students with low transportability (Lenhart, 2020, p. 119).

According to a study by (Koopman, 2015, p. 89), personal experience with the subject matter in a narrative can lead to more prosocial behavior and empathy. Participants who had prior experience with depression were more likely to donate to charity and reported more understanding for those suffering from depression after reading, regardless of the type of text they read (Green, 2004, p. 250). The author believes that readers who have personal experience with a topic may be more involved in the story, leading to the activation of social-cognitive processes. This is supported by an fMRI study by (Chow, 2015, p. 1503), which found that not only did readers report more vivid imagery when they had personal experience with the situations described in a story, but also that the connectivity between motor and visual regions increased with personal experience, suggesting that personal experience leads to deeper and more

engaging forms of narrative involvement.

- What are the aspects of social cognition that are affected by reading narratives?

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## **7. CONCLUSION**

The relationship between narratives and social cognition has been the subject of recent empirical research and has opened up several questions for future investigation, such as the effects of other narrative media, other art forms and their relationship with social cognition, the timeline of the effects of narrative exposure, and the effects of writing narratives rather than reading them. By focusing on specific factors of interest, taking into account individual differences between readers and studying a wide range of social-cognitive abilities, future research may be able to better understand the circumstances under which the social-cognitive potential of narratives can be realized. The varied findings in the empirical literature on this topic do not discourage further exploration, but rather provide opportunities for reflection and motivation for new, well-designed studies.

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