Abstract:

The narrator in The Curious Incident of the Dog in the Night-Time, by Mark Haddon, is an autistic teenager that decides to write a murder mystery novel, but his efforts of detection reveal instead the drama of his own family, which his autistic mind seems too blind to see. I intend to demonstrate that the narrator not only reveals his family's predicament, but the artifices used by authors of crime fiction and scientists in the lab, suggesting a series of questions related to the way in which we solve crimes (in novels and also in real life) and conduct scientific research. I intend to show that the reading of any text is a form of detection, which is enabled by our ability to “read” other people's minds and credit them with intentions and desires, knowledge and deception. This capacity allows us to enter fictional worlds and, with very little information, infer what is in the mind of the characters in a novel.

Keywords: Autism, Haddon, theory of mind, Crime fiction, scientific methodology

1. Though this be madness, yet there is method in it

Why do we read fiction? How does the mind work? What do science and detective fiction have in common? The first question is addressed in Lisa Zunshine's Why We Read Fiction: Theory of Mind and the Novel. The second question is tackled by Steven Pinker's How the Mind Works. I will concentrate on the third question, and try to convince you that the study of science is useful for the study of literature. I suggest that this might also address certain issues that come up in a literature classroom, such as the rebel student that feels any barking mad interpretation of a poem, text, cartoon, or scene in a film is possible; or claims that science has no objectivity, that religion is on a par with science, or that science is even in an inferior stance (since scientific discourse keeps changing, but religious beliefs and discourses are more stable); and so on. In order to tie in Zunshine's and Pinker's ideas about literature and the workings of the mind, I shall investigate the method of detection of Christopher John Francis Boone, the autistic narrator of Mark Haddon's novel The Curious Incident of the Dog in the Night-Time.

I presume most crime fiction fanatics would not insert Haddon's novel in the detective genre. Why do we read fiction? How does the mind work? What do science and detective fiction have in common? The first question is addressed in Lisa Zunshine's Why We Read Fiction: Theory of Mind and the Novel. The second question is tackled by Steven Pinker's How the Mind Works. I will concentrate on the third question, and try to convince you that the study of science is useful for the study of literature. I suggest that this might also address certain issues that come up in a literature classroom, such as the rebel student that feels any barking mad interpretation of a poem, text, cartoon, or scene in a film is possible; or claims that science has no objectivity, that religion is on a par with science, or that science is even in an inferior stance (since scientific discourse keeps changing, but religious beliefs and discourses are more stable); and so on. In order to tie in Zunshine's and Pinker's ideas about literature and the workings of the mind, I shall investigate the method of detection of Christopher John Francis Boone, the autistic narrator of Mark Haddon's novel The Curious Incident of the Dog in the Night-Time.

I presume most crime fiction fanatics would not insert Haddon's novel in the detective genre. Not because of its quirky detective: detectives are commonly oddballs, loners, obsessive-compulsive, and even partly criminal themselves. Think of Lupin swindling inspector Gannimard, Sherlock Holmes and his various vices, or Poirot and his waxed moustache. Lisa Zunshine points out that authors since the brothers Goncourt, have felt that detectives must have no love interest either. This was later backed by W. H. Auden (who said detectives have to be celibate or happily married), and research polls that ask avid murder mystery readers about love stories in crime fiction (the result: they tend to find any romance boring). Indeed, crime novelists avoid love interests, substituting these for mere sexual interests, or occasionally trying to cleverly entwine the romance with the crime: does she really love me or is she the killer and therefore lying to me? (ZUNSHINE, 2006, p. 142). Christopher seems incapable of romance, which is great for a prototypical detective, and his
oddsness makes Sherlock look like an average accountant, which is to say he’s as odd as can be, but he also seems incapable of conducting effective crime investigation, because he is unable to read people’s intentions. This inability is made known in the opening paragraph, as is the type of crime to be investigated: it surely is not the kind that might interest usual detectives or even the police, who is not overly concerned with dog killers. The very beginning of the novel, then, should already be enough to disqualify Christopher as a competent detective:

It was 7 minutes after midnight. The dog was lying on the grass in the middle of the lawn in front of Mrs. Shears’s house. Its eyes were closed. It looked as if it was running on its side, the way dogs run when they think they are chasing a cat in a dream. But the dog was not running or asleep. The dog was dead. There was a garden fork sticking out of the dog. The points of the fork must have gone all the way through the dog and into the ground because the fork had not fallen over. I decided that the dog was probably killed with the fork because I could not see any other wounds in the dog and I do not think you would stick a garden fork into a dog after it had died for some other reason, like cancer, for example, or a road accident. But I could not be certain about this.

(HADDON, 2003, p. 1)

He takes too long to figure out that the crime is intentional, and he doesn’t even rule out death by natural causes or accident. Were this line of reasoning to continue, one could imagine how many pages it would take him to describe his thought processes in solving a simple Sherlock Holmes case. Let’s assume, for example, that Watson would record the same encounter with a dead dog in two sentences: It was around midnight when we saw the dead dog on the grass. It had evidently been killed with a garden fork. That is certainly more economical, but the fun of Haddon’s narrator is his methodical description of some of the things we simply ignore. We easily read other people’s mind in the sense that we can guess their emotional state just by looking at their faces. Some people might fool us when they have a good poker face, but most of us can easily recognise anger, sadness, happiness, disgust and other such emotions in anyone who is not striving to deceive us. Sometimes even then. Lisa Zunshine, who is particularly interested in the kind of mind-reading we have to accomplish when reading fictional characters in action, discusses some of the issues at stake when dealing with autism. She points out that initial studies of autism alerted cognitive scientists that the capacity to infer other people’s beliefs and desires from their expressions and actions is a biological adaptation and that we should have parts of the brain dedicated to perform that action. Zunshine uses research on autism to illustrate “what it means not to be able to attribute minds”. Alison Gopnik gives a description of what it would be like to be completely mind-blind:

At the top of my field of vision is a blurry edge of nose, in front are waving hands . . . Around me bags of skin are draped over chairs, and stuffed into pieces of cloth; they shift and protrude in unexpected ways. . . . Two dark spots near the top of them swivel restlessly back and forth. A hole beneath the spots fills with food and from it comes a stream of noises. . . . The noisy skin-bags suddenly [move] toward you, and their noises [grow] loud, and you [have] no idea why. . . .

(quoted in PINKER, 1997, p. 331)

Gopnik’s description of mind blindness is very effective, but it cannot describe all forms of autism (which are many and more complex than initially thought), and certainly does not coincide with Christopher’s vision of the world. He can actually guess some emotions, but he has to work them out, like a mathematical puzzle. He even has one of his teachers, Siobhan, draw facial expressions and write down next to them what they mean. But Christopher finds out that people’s faces move too quickly for him to guess efficiently. Normal human beings, of
course, have no problems keeping track of quickly moving facial expressions. This was also a clue to cognitive scientists that autism involves an inability to perform a task so instinctive and automatic that we didn't even think about it being a biological adaptation. Darwin, of course, argued that natural selection could explain the universality of facial expressions in humans, in his *The Expression of the Emotions in Man and Animals*. This might have at least suggested to doctors examining early autistic patients that the condition might involve an inability to read these expressions efficiently.

Not unexpectedly, a psychoanalyst, Bruno Bettelheim, blamed an early case of autism on “emotionally distant parents” and “early, rigid toilet training”, and even pronounced the condition to be a result of our modern way of life (PINKER, 1997, p. 331-2). This seems to reverse cause and effect, but is typical of the psychoanalytical practice of searching for causes in early childhood, which usually entails unending treatment, and a relentless quest to find fault in parents for any ineptitude in the offspring, and to allow sexual organs and orifices the main role in character formation. If a parent isn't affectionate to a child, the cause may well lie in the child. Are the parents of autistic children cold hearted, or are they simply responding to a child's lack of interaction? A smiling baby does wonders to the mood of loving parents, who smile right back. An unresponsive baby might not be hugged and kissed as much, because it doesn't encourage interaction.

Bettelheim chose to view the icebox or refrigerator mother as the main cause of autism, perhaps with some guilt reserved to absent fathers. He believed autism had no organic basis, and even went as far as to say that only a culture as sick as the one in the 1960s could have produced such an anomaly. So much for people who feel nostalgic about the 1960s and see instead the 2010s as the new low point in cultural, moral, and religious decadence. This is Pinker's reassessment of autism:

Today we know that autism occurs in every country and social class, lasts a lifetime (though sometimes with improvement), and cannot be blamed on mothers. It almost certainly has neurological and genetic causes, though they have not been pinpointed. Baron-Cohen, Frith, and Leslie suggest that autistic children are mind-blind: their module for attributing minds to others is damaged. (Pinker, 1997, p. 332)

Another typical misrepresentation of autism is pointed out by Zushine. In some of her talks she has argued that people read fiction because fiction engages and helps us exercise our mind-reading abilities, which she calls our Theory of Mind (the term is common in cognitive science, and is sometimes abbreviated as ToM). Some of her listeners were eager to suggest that teenagers today are all slightly autistic, since they never read fiction, preferring instead to watch television. As Zushine points out, these listeners reason that “making sense of an episode of *Friends*...[does] not require the full exercise of the viewer's Theory of Mind” (ZUSHINE, 2006, p. 11). Furthermore, there are many levels of autism, and here we might include “Asperger syndrome –which is sometimes classified as high-functioning autism and sometimes viewed as a separate condition (i.e., a nonverbal learning disability)” that “does not necessarily preclude people from enjoying fictional narratives” (ZUNSHINE, 2006, p. 12). She cites Christopher as an example: he prefers books about mathematics and science and is not interested in novels, but “he does like murder mysteries, appreciating, in particular, their puzzlelike structure” (ZUNSHINE, 2006, p. 12).

In Christopher’s words: “In a murder mystery novel someone has to work out who the murderer is and then catch them. It is a puzzle. If it is a good puzzle you can sometimes work out the answer before the end of the book” (HADDON, 2003, p. 3). And even though crime fiction fans might not class the novel as crime fiction, Christopher's story is full of clues and red herrings. Clues, as Christopher notes, help you solve the mystery, red herring throw you off the scent. The puzzle in Christopher’s life is really not about the death of the neighbour’s
dog, but perhaps in the death of his mother, who turns out to be alive and well in London. She left her husband (Christopher's father) and her son and went to live with the neighbour's husband in London. The neighbour's wife had a brief affair with Christopher's father, but when that didn't work out, he killed her dog in an outburst of rage. The clues are right there for readers to see. Perhaps the dead dog functions as a red herring, distracting us from the real source of Christopher's tragedy, which is a complete inability to read the minds and feelings of his immediate family that eventually pushes his mother to abandon him – perhaps abandon is a strong term, but it is obvious that his mother is unable to take care of him. This discovery occurs in the middle of the novel, another indication that this is not intended as a crime novel (which end soon after we find the culprit, which is why we read it, after all).

Lisa Zunshine argues that one of the reasons (perhaps the main reason) we read is to exercise our theory of mind. She also makes it clear that we can also exercise that with television, cinema, and the theatre. Presumably exercising our theory of mind is either advantageous in some level, or at least it tickles our fancy. This idea could be as old as when Horace asserted that literature should delight and instruct. Complaining about teenagers not exercising their minds when watching TV comes from the idea that there's only delight to be had in TV shows, but no instruction. There might be some truth in it, though of course not in the sense that Zunshine's listeners thought of, namely that too much TV is proof that teenagers are becoming zombiefied. Steven Pinker distinguishes delight, “perhaps the product of a useless technology for pressing our pleasure buttons”, from instruction, “perhaps a product of a cognitive adaptation” (PINKER, 1997, p. 539). Fiction, in his view, would be a technology of fiction that simulates life:

Words can evoke mental images, which can activate the parts of the brain that register the world when we actually perceive it. Other technologies violate the assumptions of our perceptual apparatus and trick us with illusions that partly duplicate the experience of seeing and hearing real events. They include costumes, makeup, sets, sound effects, cinematography, and animation. (PINKER, 1997, p. 539)

If the illusions are effective, asking why people enjoy fiction would be like asking they why then enjoy life. The pleasure button in real life should be labelled gossip: knowledge is power, and could give a person strategic advantages in certain circumstances. But what about stories that end miserably? Pinker suggests we might still enjoy them to gain status, or because we don't want a predictable end (supposedly what we get with happy endings) that violates the unpredictability of the real world, or because we are benign masochists (we want to see other people experience misery without having to suffer ourselves of the same afflictions). As a form of instruction, fictional worlds are reality simulators. According to Pinker, some definitions of plot are identical to some definitions of intelligence. “Characters in a fictitious world do exactly what our intelligence allows us to do in the real world. We watch what happens to them and mentally take notes on the outcomes of the strategies and tactics they use in pursuing their goals” (PINKER, 1997, p. 541).

2. Mind your Education

Education could be seen as a type of technology too, created to allow the human brain learn things it is generally unsuited to learn intuitively. Different theories of learning generate distinct teaching practices. Implicitly or explicitly, these theories propose a model of how the mind works. The model that best describes how we learn, I think, comes from cognitive science and evolutionary psychology. Steven Pinker provides a summary of just how our mind works:

The mind is a system of organs of computation, designed by natural selection.
to solve the kinds of problems our ancestors faced in their foraging way of life, in particular, understanding and outmaneuvering objects, animals, plants, and other people. The summary can be unpacked into several claims. The mind is what the brain does; specifically, the brain processes information, and thinking is a kind of computation. The mind is organized into modules or mental organs, each with a specialized design that makes it an expert in one arena of interaction with the world. The modules’ basic logic is specified by our genetic program. Their operation was shaped by natural selection to solve the problems of the hunting and gathering life led by our ancestors in most of our evolutionary history. The various problems for our ancestors were subtasks of one big problem for their genes, maximizing the number of copies that made it into the next generation. (PINKER, 1997, p. 21)

This model presupposes that understanding the mechanism of evolution through natural selection is essential to allow us to understand and investigate how the body and mind of all animals, including human beings, work. Darwin himself predicted that his ideas about evolution would, in the future, be the basis for the study of psychology (DARWIN, 1859, p. 402). The idea was picked up by William James (Henry James's brother), but psychology in the twentieth century came to be dominated by Freud's ideas rather than James's. But even though Freud and his followers are not looking so hot any more (not only because of a blunder about autism), and even though Darwin's “theory of evolution is about as much open to doubt as the theory that the earth goes round the sun” (DAWKINS, 1976, p. 1), several areas of the social sciences act was though Darwin didn't exist. One of the consequences of this is the production of theories and concepts of psychological development that are incompatible with what cognitive science and neurology are finding about the human brain. In literary criticism, I still find my peers in Brazilian universities firmly hanging to Freud's notion that our personalities are mostly shaped by our parents, among others. Not to mention the postmodernist and deconstructionist dogmas such as culture precedes nature (associated with Baudrillard), texts are self-referential and there's nothing outside discourse (associated with Derrida), language is a precondition for thought and that humans cannot exist prior to language (associated with Barthes).

Ideas in evolutionary psychology that guide this discussion were proposed by authors such as Leda Cosmides, John Tooby, Steven Pinker, among others. In simple terms, they argue that the methodology of the social sciences should be compatible with the natural sciences, so that theories in psychology, anthropology, sociology, linguistics, etc., might become consistent (not contradictory) with those of physics, chemistry, biology, geology, etc. Evolutionary psychology uses methodology that is compatible with cognitive science and neurology and posits that human brains are capable of learning some things without much effort or need of formal education: we normally learn to sit, walk, run, recognise faces before we go to school. Some of these operations seem trivial to us but are daunting engineering problems for scientists who are interested in building intelligent machines.

Without much help, a healthy human brain is perfectly capable of learning a language. It is obvious that they need to have some contact with other speakers, but there’s no need to send them to grammar lessons. Children learn to communicate fluently very fast. Writing, on the other hand, is an activity that requires extensive training and coaching from teachers, parents and other educators. Many people never learn to read or write, or do so only with difficulty.

We don't need to go to school in order to learn how to read people's expressions and guess their emotions and desires. And yet, it is still common for people to think that children are empty vessels that can be filled with knowledge or the world. Children are actually filled with specific learning modules located in the brain, there is no general mechanism for learning (RIDLEY, 2003, p.321). Understanding the ways in which an autistic child is mind-
blind illuminates some aspects of the working of the brain: that some operations we find trivial (such as guessing that someone is angry, embarrassed, or sad) require sophisticated mental machinery – and indeed would puzzle computers that have only recently “learned” how to recognise human faces. Learning for a computer is really another word for programming. Computers recognise different fingerprints (something humans tend to find very difficult and can only accomplish training), and can match them to fingerprints recorded on an extensive database within seconds (something humans cannot do). Artificial intelligence research shows that some of the things we find very easy to do, machines, computers, and robots may find very hard. While a simple calculator might perform tasks that are impossible for just about every human being. But an understanding of autism might also inform us of how efficiently Haddon has been in characterising an autistic boy.

Since I know of no autistic fifteen-year-old that has produced a prize winning novel, I am inclined to think that no autistic boy could write such a good novel. I know that an English author with experience in dealing with learning disabled children produced the novel, and that might bias my perception about the literary capabilities of autistic children, but still I feel that many elements in Haddon's prose are evidence of a mind that is aware of the limitations brought about by different levels of autism and learning disabilities, but also of the conventions of detective fiction, literary fiction, realistic representations in novels, narratives that employ stream-of-consciousness, contemporary linguistic conventions and educational institutions, etc. The letters Christopher's mother sends him are full of spelling errors, for example. If one believes the story was really written by an autistic child, the fact that Christopher's use of English is so much more accurate could serve as evidence that the letters are genuine and that the novel really is the word of an autistic boy. But Haddon's name as the author on the front page indicates Christopher is a fictional character and that Haddon carefully crafted the novel so as to make it as convincing and realistic as possible.

3. Science, Mind, and Literature

The work of detecting the use of language in a novel is the stock-in-trade of literary scholars, who are self-appointed detectives of texts. They have extensive practice in detecting textual evidence to support their interpretation of poems, song lyrics, short-stories, novellas, novels, plays, films, television shows, cartoons, comic strips, and so on. Undergraduate students who have little practice in the business of text-detection sometimes complain that the interpretations produced by their expert professors are far-fetched, contrived, hallucinatory, wildly speculative, off-the-track, or simply wrong. The feeling might be enhanced when students are told by a professor that their reading is somehow inconsistent, naïve, mangled, prejudiced, unsupported, or simply wrong. I tend to believe that experts are usually in the right, but maybe I'm just saying it because I'm a professor myself. The feeling that students misinterpret texts seem to be all too common. Recently a colleague of mine discussed how a student interpreted a simple comic strip in an EFL class. The comic strip seemed very simple: a man approaches the edge of a cliff, stops for some time, then jumps across to the other side. The last scene in the strip reveals that the cliff was actually a narrow valley, and all but one student interpreted the man's hesitation on the edge as a calculation, something like: “Can I leap across this canyon”. Before we see the last scene in which the man safely lands on the other side, we might consider the possibility that he's about to commit suicide. One student took it to mean precisely that, and interpreted the landing on the other side as evidence that the man had actually fallen, died, and landed in paradise, not on the other side of a canyon. And there was no convincing him otherwise, because he felt that interpretation was simply a matter of opinion, and his happened to be different. He could have been right. But I feel that ignoring obvious evidence might be a product of relativistic indoctrination (I usually associate
this with peculiar ways of reading postmodern critics and philosophers) that leads some students to believe that all truths are contingent and that interpretation is valid.

But here's a piece of detection that might illustrate valid ways to extrapolate evidence in a very acceptable way:

When hunting, the ability to extrapolate from spoor evidence is important to predict the possible whereabouts of an animal. While tracking down a solitary wildebeest spoor of the previous evening, !Xo trackers pointed out evidence of trampling which indicated that the animal had slept at that spot. They explained consequently that the spoor leaving the sleeping place had been made early that morning and was therefore relatively fresh. The spoor then followed a straight course, indicating that the animal was on its way to a specific destination. After a while, one tracker started to investigate several sets of footprints in a particular area. He pointed out that these footprints all belonged to the same animal, but were made during previous days. He explained that that particular area was the feeding ground of that particular wildebeest. Since it was, by that time, about midday, it could be expected that the wildebeest may be resting in the shade in the near vicinity. The trackers then followed up the fresh spoor, moving stealthily as the spoor became very fresh, until one of them spotted the animal in the shade of a tree, not very far from the area that was identified as its feeding ground. The interpretation of the spoor was based not on the evidence of the spoor alone, but also on their knowledge of the animal's behaviour, on the context of the spoor in the environment and on the time of the day. All this enabled the trackers to create a reconstruction of the animal's activities which contained more information than was evident from the spoor itself.

(LIEBENBERG, 1990, p. 80)

This description comes from a book entitled *The Art of Tracking: The Origin of Science*. Libernberg’s argument is that hunter gatherers display amazing knowledge of their environment and power to process a great amount of information from their landscapes. This allows !Xo trackers to hunt large animals in Africa, and this same ability allows scientists today to arrive at right conclusions about the origins of species, the universe, language, etc., by analysing ample but limited evidence. The process works well enough for hunter gatherers, who are able to kill and eat wildebeests. If their inferences and deductions were false, they’d starve. If scientific inferences and deductions were false, there would be no scientific or technological progress.

Textual evidence allows certain inferences and deductions, but not all of them will lead to the metaphoric wildebeest. Crime fiction is based on effective detection, as much as hunting big game is based on effective spoor analysis. Effective detection involves increasingly accurate means to collect and analyse evidence. Fingerprints weren't available to Sherlock Holmes, but contemporary crime show on American television give us a sample of the sophistication of lab work. Not surprisingly, lab geeks are now portrayed as the real heroes of detection. The hugely popular *CSI*, for example, features a group of crime scene investigators in Las Vegas that are not the gun-carrying street-savy kung-fu fighting type. The show produced spin-offs in New York and Miami. And there is *Dexter*, which features a homicidal-yet-moral psychopath who works as a spatter analyst (that is, he is an expert on blood in crime scene) who exterminates the dangerous criminals the Miami police has been incapable of catching through poor detection work or faults in the justice system.

Science, then, can help not only crimefighters and vigilante psychopaths, but also might prove to be a guide to consistent literary theory and might provide an answer to professors who are dumbfounded by students whose creative interpretation of texts leads to bad-Woodstock-acid-like trips. These flights of fancy should be more difficult to justify when
we treat the interpretation of texts as a type of detection, spoor analysis, and search of scientific evidence.

We use 100% of our brains, I like to tell students. If you've lost half of it in an accident, I'm sorry, but the good news is that you use 100% of your 50%. That's more than the 10% of the 100% some people seem to think people are able to use. Presumably, we'd levitate, communicate telepathically, or walk through walls by wishing alone.

If wishes were horses, beggars would ride.

Hunter gatherers tracking animals also have full use of their brain. And, like us, they are also unable to consciously control their heartbeat or testosterone production. Their cognitive apparatus is fully functional and perfectly capable of learning and dealing with the most advanced scientific theories we have produced in our high-tech world. And fully functional cognitive apparatus is all we need to boldly search for textual evidence that will back our interpretation of literary texts.

Happy detection.

REFERENCES:


