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## **The Laboratory of the Mind**

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*Abstract:* I argue that works of fiction function as thought experiments. Both literary fictions and scientific thought experiments are imaginative constructions that advance understanding by exemplifying features and playing out their consequences. Although the features occur in actuality, they are subtle, easily overshadowed, or otherwise difficult to discern. The function of a literary or scientific thought experiment is to provide a context that makes them manifest and displays their significance. Literary fictions are more elaborate than scientific thought experiments. They largely set their own parameters, function in a dense field of alternatives, and admit of multiple, divergent interpretations. Like scientific thought experiments, such fictions are not, do not purport to be, and are not taken to be true. But both enable us to see or recognize truths that we would otherwise miss.

After reading a novel, we often claim to have learned something. To say this is to say something more than that the novel changed our minds. We take the change to be a cognitive improvement. It is not entirely clear what sort of accomplishment we have in mind. Perhaps we think our stock of knowledge has increased or our perception has become more acute or our understanding has been enriched. But, however we spell it out, such a claim is epistemologically problematic. Knowledge requires truth. I do not know that Boise is the capital of Idaho unless 'Boise is the capital of Idaho' is true. Perception requires accuracy. I do not see that it is raining unless it is raining. Understanding requires some sort of fidelity to the facts. I do not understand Wellington's victory unless Wellington was in fact victorious. But fictions are, for the most part, literally false. Despite what we read in *Moby Dick*, there was no such person as Ishamel and no such ship as the Pequod. Even where a work of fiction incorporates facts, as *Moby Dick* does, it is not a reliable source of information. The reader should not take Melville's statements about whaling at face value as she might take the statements in

*Whaling in North America* at face value, for a novelist is free to take liberties with truth to serve his literary ends. And any sentence, no matter how plausible, might be one where such liberties were taken.

Perhaps the knowledge we gain concerns only what occurs in the book. We come to know that *in the story* Ahab was obsessed with the white whale. Certainly we acquire such knowledge. And we come to understand how *in the story* Ahab's obsession dominated and ultimately destroyed the lives of his crew. But we claim (somewhat inchoately) to gain something more – knowledge and/or understanding that we can export beyond the context of the story. The problem that concerns me is the export problem. What, if anything, are we justified in taking from such a work to apply to other aspects of our world?

To answer this question, I suggest it pays to look to science. The stereotype of science is that it is the bastion of hard facts. Science describes reality as it is; it constitutes a mirror of nature. But the stereotype is false. Consider what goes on in the lab. A scientific experiment does not reproduce what occurs in the wild. Scientists use pure samples, even when the substances in their pure forms are not to be found in nature. They go to extremes, testing in circumstances that do not obtain in nature.

To decide whether a substance is carcinogenic, scientists place genetically identical mice in otherwise identical environments, exposing half to massive doses of the suspected carcinogen while leaving the rest unexposed. The common genetic endowment and otherwise identical environments neutralize the vast array of factors that are believed to standardly influence the incidence of cancer. By controlling for genetics and most aspects of the environment, the scientists make the effects of the suspected carcinogen

stand out. The experiment is highly artificial. Even the mice are artifacts, having been intentionally bred to exhibit a certain genetic structure. The exposure is to a vastly higher dose of the substance than would occur in nature. The environment is rigidly controlled. Rather than rendering the experiments unrepresentative, these divergences from nature enable the experiment to reveal aspects of nature that are normally overshadowed. They clear away confounding features and highlight significant ones so that the effects of the substance stand out.

Science distances itself even further from the facts when it resorts to thought experiments -- imaginative representations designed to reveal what would happen if certain conditions were met. They are not actual, and often even not even possible, experiments. Nonetheless, they afford an understanding of the phenomena they concern. By considering what a person riding on a light wave would see, Einstein teases out the subtle, counterintuitive implications of the theory of relativity. It makes no difference that it is impossible for a person to ride on a light wave. Suspending disbelief, we can use the thought experiment to gain a better understanding of the theory, and thereby a better understanding of light.

Scientific thought experiments can be relatively austere because they depend explicitly on established background assumptions whose acceptability is taken for granted. In effect, the background assumptions supply a thick context, which focuses attention on relevant factors. Because they share these assumptions, scientists tend to agree about what the thought experiments show.

I suggest that literary fictions are extended, elaborate thought experiments. Unlike scientific thought experiments, however, they are neither austere nor strongly

dependent on fixed, shared background assumptions. Works of fiction set their own parameters. They can presuppose or provide thick descriptions of events, agents, and circumstances. They can deploy a vast range of factors to achieve their ends. Not only the plot, but the characters, their reliability and perspectives on events, even the sound, shape, tone, and sequence of the words, may play a role.

Like an experiment, a work of fiction selects and isolates, manipulating circumstances so that particular properties, patterns, connections, disparities and irregularities are brought to the fore. It may localize and isolate factors that underlie or are interwoven into everyday life, but that are apt to pass unnoticed because they are typically overshadowed by other, more prominent concerns. This is why Jane Austen believed that ‘three or four families in a country village is the very thing to work on.’<sup>1</sup> The relations among the members of the three or four families are sufficiently complicated and the demands of village life sufficiently mundane that the story can exemplify something worth noting about ordinary life and the development of moral personality. By restricting her attention to three or four fictional families, Austen in effect devises a tightly controlled thought experiment. Drastically limiting the factors that affect her protagonists enables her to elaborate in detail the consequences of the few that remain.

Sometimes Austen is criticized for keeping the wider world at bay – for instance, by omitting the effects of the Napoleonic wars. The criticism is misplaced. Her thought experiments focus attention on aspects of life that are pretty much untouched by the great forces of history. Just as it is no criticism of an experiment on pure water that it neglects the widespread impurities in lakes and streams, it is no criticism of Austen that her novels

ignore war and national politics and examine aspects of everyday life on which their effects are negligible.

Of course, a novelist need not restrict his scope to the narrow confines that Austen favors. Tolstoy took a panoramic view, construing Napoleon's army and the forces of history as among the protagonists of *War and Peace*. Or anyway, he allowed *some* aspects of Napoleon's invasion of Russia and some (alleged) forces of history, under some description, to play a role. But in Tolstoy as in Austen, there is a careful selection of incidents, actions, characters and descriptions. Random incidents, which clutter up everyday life and confuse matters considerably, do not occur in good fiction. Or to say the same thing differently, a seemingly random incident that occurs in a work of fiction should be taken, just because it occurs, to be in an appropriate sense non-random.

A problem of plenty arises when we have large amounts of disorderly data. How are we to understand it, make sense of it, make sense of other things in terms of it? By exemplifying a pattern, a fiction may prompt us to formulate a hypothesis that enables us to organize our data – a hypothesis we have ample evidence for, but would not, without the fiction, have entertained.<sup>2</sup> In *The Crucible*, the Puritans who conducted the Salem witch trials 'believed . . . that they held in their stead hands the candle that would light the world.'<sup>3</sup> The play makes the arrogance and dangerousness of such a belief manifest by showing how, regardless of good motives and high ideals, it gives rise to political hysteria and abuses of power. The play leads us to suspect that contemporary institutions that purport to hold in *their* steady hands the candle that would light the world are equally arrogant and dangerous. To be sure, the play only generates the hypothesis. But armed with it, we can find ample evidence for it.

Works of fiction equip us to adopt alien perspectives, enabling us to see the world as others see it. Sometimes that perspective may yield an accurate, even if unanticipated take on things. Fanny Price, the heroine of *Mansfield Park*, has a morally impeccable point of view. If we adopt it, learn to focus on the sorts of factors it discloses, and overlook the confounding factors it dismisses, we can export it and increase our own moral acuity. Adopting an alien perspective can be rewarding even if that perspective is inaccurate. Holden Caulfield is a neurotic, self-absorbed teenager whose perspective enables us to see things that we would otherwise miss. Many of the things he scorns as phony are in fact phony, although they are so familiar that we fail to notice how hypocritical they are. Even where the perspective is so skewed that judgments are faulty, appreciating how things look from that perspective may be valuable. Stances may be worth adopting, not because they are accurate or adequate to their subject matter, but because they yield insights into the perspectives, beliefs, situations and actions of those to whom they come naturally. By adopting alien perspectives, we gain access to other minds.

Works of fiction can unsettle complacent convictions, calling into question what we take ourselves to know. Fanny Price is a prig with a morally impeccable point of view. That an ethically upright character, who is not even smug or self satisfied, is not particularly likeable points up a tension between the likeable and the good. It intimates that perhaps we like and dislike people for reasons that do not stand up to moral scrutiny. One character in one novel does not demonstrate that this so. But such a character disconcerts. She may prompt us to consider the connection between the likeable and the good and provoke a reassessment of our unthinking assumption that those whom we like

are admirable and those whom we dislike are flawed. Knowing that one does not know is, as Socrates maintained, the first step toward knowledge. So in dislodging unfounded claims to knowledge, fiction can advance cognition.

The non-truths that constitute a fiction are cognitively valuable because they equip us to discern truths that we would not otherwise see or would not otherwise see so clearly. A work of fiction brings certain factors to the fore. It shows the effects of these factors in a context expressly designed to highlight those effects. Sometimes what we glean are the limitations of a particular stance. Don Quixote's taking windmills for hostile knights highlights the mistakes that can be made by filtering evidence through radically incorrect presuppositions. Lear's predicament sensitizes us to the dangers of taking extravagant expressions of emotion for the real thing. Sometimes a fiction discloses the benefits of taking to be salient factors that are ordinarily ignored. When Don Quixote overlooks the obvious and sees Dulcinea as beautiful, we awaken to the possibility of finding beauty against all odds in the most unpromising of circumstances. A story that is not, does not purport to be, and is not taken to be true thus enables us to see or recognize truths that we would otherwise miss.

<sup>1</sup> Jane Austen, Letter to her niece, Anna Austen Lefroy, September 9, 1814, in *Letters of Jane Austen*, Bradbourne Edition, [www.pemberly.com/janeinfo/brablets.html](http://www.pemberly.com/janeinfo/brablets.html), consulted, May 4, 2005.

<sup>2</sup> David Lewis, 'Truth in Fiction: Postscript,' *Philosophical Papers I*, Oxford: Oxford University Press, 1983, p. 279

<sup>3</sup> Arthur Miller, *The Crucible* New York: Viking, 1954, p. 5.