

**Representations of Science: An Interpretation of Richard
Powers' *Galatea 2.2***

In *Galatea 2.2*, Richard Powers explores the lines defining consciousness, intelligence, and emotion through both the development of the artificially intelligent computers by the characters Lentz and Richard for the stated purpose of passing a Turing Test, and through the unveiling of Richard's past and present relationships with women and literature. The progression of both plotlines stumbles to a halt when the character Diana tells Richard that the purpose of creating the artificially intelligent machines was not to test them but rather to test *Richard*, the computers' trainer. This simple statement that manages to alter the meaning of the whole book raises the question of why Richard was being trained to be able to recreate the human experience. In addition, there is the question of whether Richard succeeds in his training, and how one can tell such a thing. The diction, tone, and themes represented in several passages throughout the novel reveal Richard's role as a test subject in an experiment parallel to his own experiment with Helen. This, along with the mere existence and failings of this novel demonstrate that Richard was bound to fail at the goal of truly recreating the human experience in a single medium—that of the written or spoken word.

The purpose of a novel is generally to relate a story in a manner that permits the reader to have a good understanding of one or more of the characters, such that the character, whatever her differences from the reader, does not seem completely inhuman or improbable. This is frequently done by relating the "human experience" of the character—her environment, thoughts, emotions, motivations, and actions—to provide the background necessary to complete her characterization.

The question of how to tell of the human experience in a book or verbally is an interesting one, however. To *truly* recreate the human experience, to be unable to distinguish life from the retelling of life, one would theoretically need to portray every thought, every emotion, every piece of history, etc., to the reader. As this is rather impossible, authors must choose which elements to include, and what weight each should have for the character's development. As to why that particular (and peculiar) level of perfection is demanded in the recreation of the human experience, Lentz suggests, "'Reverse Turing Test. See if the human can pass itself off as the black box'" (124). One should see if the human's writing or speech can pass itself off as the "black box", or what people experience daily. *This* is the crux of the experiment performed on Richard at the Center—to see if a writer that historically fails miserably to recreate the human experience in his works can do so when forced

to modify his method of telling for an audience with a completely alien background and referential point for understanding things.

Richard's failure in his previous novels is demonstrated by the reactions to the novels of people that have, in fact, experienced situations similar to those about which he wrote.

"But if you guys are ever curious to do a little Powers, you... may want to skip my third book." The one where the narrator ties her tubes in fear of bearing a child with birth defects. [...] "I hope you—I didn't know what I was talking about."

Her pitch fell to forgiveness. "No one does."
(183)

Throughout the novel, Richard relearns the old writer's adage: write about what you know. What Richard did *not* know at time he wrote his previous novels were the experiences of mothers of children with disabilities or the culture of the people of the Netherlands. Using common sense and a bit of deductive reasoning, one might ask how someone can recreate a human experience she has never lived, particularly given the imperfect transfer of information that exists with speech and writing. Diana's response, as well as Richard's own learning, or relearning, as it were, up to this point indicates that he can not.

In *Galatea 2.2*, the first person narrative lends a personal point of view to the entire story, making it extremely important to tell of Richard's human experience—the better to understand the "filter" placed over the events of the book with the first person narrative. This is done by retelling Richard's history (albeit from his own perspective), creating a sense of his environment at the Center, and attempting to explain many of the thoughts and emotions of the man, as one would expect. However, throughout the book, Richard learns much about telling of the human experience in his time teaching Helen, and the differences between what he learns and what Powers himself uses are interesting.

Of particular prominence are the references to scenes or the creation of imagery that require an understanding of sight to be effective. Richard learned when training Helen that descriptions appealing to sight would only get him so far. After reading and assimilating books for weeks, Helen demands to see the places mentioned in the works. "Yet comparison filled her with need to see the real moor, the navigable sea, however much deeper the brain that could absorb it. 'Show me

Paris'" (294). Her simple demand—and Richard's notable inability to explain such places adequately *without* referring to vision—highlights a crucial difference that exemplifies much of Helen's alienness. She simply doesn't have the same frame of reference for understanding metaphors that Richard does. This, when expanded into all of Helen's differences in thought processes, senses, and abilities, provides a small hint of what an author should contend themselves with when writing, yet what Richard seems to disregard when writing. Rarely do authors specifically take into account a reader's potential lack of sight, but the cultural differences, the other sensory differences, and all the small things accumulate to create an entity with very little hope of understanding such a culturally-dependent "human experience" with no previous explanation of background information.

However, in writing *Galatea 2.2*, Powers himself disregards much of Richard's learning. There are several places where the connotations surrounding a particular image become crucial for characterization, namely when Lentz is initially described. "The head attached to these glasses peaked in a balding dome. From freakish frontal lobes it tapered away to nothing at the temples only to erupt again in a monstrous beak" (12). Much of the language in this passage is rather loaded with meaning about Lentz and Richard's initial opinion of Lentz that would be lost without an understanding of the true harshness of the image.

Richard's learning throughout the novel parallels Helen's learning. Both are participating in an experiment that is seemingly more psychological than computer scientific in nature, although both can be explained as more psychological branches of artificially intelligence studies. The conversation in which Diana reveals to Richard the true purpose of the development of the artificial intelligent computers is itself revealing of the parallelism.

The extent of my idiocy, of my childishness just now dawned on her. You still believe? "You think the bet was about the *machine*?" [...]

"It wasn't about teaching a machine to read?" I tried. All blood drained.

"No."

"It was about teaching a human to tell." [...]

"And they were going to accomplish all this by...?"

She waved her hand: by inflicting you with this.
With knowing. Naming. This wondrous devastation.

Her wave took in all the ineffable web I had failed
to tell Helen, and she me. All the inexplicable visible.
[...] [Diana] swept up her whole unmappable
neighborhood, all the hidden venues cortex couldn't
even guess at. The wave lingered long enough to land
on both boys [...] (317-8).

One particularly noteworthy aspect of this passage is the ambiguity regarding who identifies the real goal of the bet. It could be either Richard becoming wise to the goal, or Diana informing him of his error. It could be Richard moving past the input of the words and their surface interpretations, and moving into the meaning, much as he had trained Helen to do in the previous weeks.

While the meaning of "teaching a human to tell", or to relate the human experience, is explained previously, this passage demonstrates the connections between Richard's goal of recreating the human experience, which had been in a context of writing up to this point in the novel, and Helen. For example, Helen's experience in traveling (294-6) represents how the external, real world was an "inexplicable visible" (318)—Richard simply could not sufficiently verbally explain the scenery of these places to satisfy Helen's unique imagination, which had no referential frame for understanding the importance or multitude of meaning humans place on sight outside of her literary readings.

The fact that Diana's wave "lingered long enough to land on both boys" (318) again relates to Richard's inability to truly understand someone else's human experience—in this case, the experiences of a mother of a developmentally challenged child. In addition, however, there is the problem that occurs in the book of defining intelligence and consciousness. This is a problem Lentz disregards as unimportant to their cause, but Richard does not. Whether or not Diana's Down Syndrome child (or even William) is intelligent or conscious (in the sense of being aware of being aware) is not something Richard seems to consciously consider, but it does provide a stark contrast to the genius of the workers at the Center and Helen's odd, quirky brand of intelligence.

Much related to intelligence, or the perception of intelligence, is Helen and Richard's gullibility. "I myself would never have bitten, had I still been a child. Yet I'd believed. I'd *wanted* to" (123). This particular statement relates to Richard's

gullibility in the trial run of Implementation C, but similarly applies to his experiences with C., A., and literature. In each case, Richard wanted to believe that each was good and perfect in its current form, despite past experiences. Then, through a phase of disillusionment, much like the moment when Diana slipped up in portraying Implementation C, Richard learns more of the truth about each. The same can be said of Helen's experiences with humanity. Initially, she is questioning of humanity, and wants only to learn more. When she does obtain a glimpse of humanity's true actions, she becomes disillusioned, yet eventually decides to still believe, for a short time, that humanity will do her no harm.

Richard's experience in "teaching a human to tell", or recreating the human experience failed in his attempts with Helen and Powers' attempts with *Galatea 2.2*. Both leave the audience without a perfect replication of the author's experiences, although some portion of the experience is passed along.

Word Count: 1780