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Artificial Eloquence: Computer-Based Analysis of Human and Robotic Dialogue in Classic Science Fiction

Using a computer program that I have written to identify specific structural differences in written speech, I analyze the dialogue of human and robotic characters in ten classic science fiction short stories in order to determine how authors vary speech patterns to distinguish their human characters from their depictions of intelligent technological life.

Authors of science fiction short stories often put artificial life forms in direct comparison with humans to show the contrast between robotic and human existence, but what is it that makes the two so different? One way that these authors show their intended distinction is by using differing patterns in dialogue and speech to shape the reader's perceptions of artificial life forms. As readers who cannot directly participate in the world of the story, the most direct means of obtaining information about the intentions and perceived personality of a robotic character is through what it says and how it says it. For this project, I have selected ten classic, canonized science fiction short stories spanning 1938 to 1986 in order to deduce how robotic language is used to create widely differing reactions in both human characters and readers to the robotic life forms they encounter within these stories. This list includes works by authors such as Isaac Asimov, Harlan Ellison, C. L. Moore, and Philip K. Dick. The computer program takes each example of dialogue and scans for the following patterns: word count, sentence length, word length, common words, misspelled or colloquial words, punctuation use, pronoun use, and the frequency of key parts of speech. I supplement the significant information gained from the computer-generated analysis with my own interpretation of tone, style, and plot of each story individually and within the broader context of the genre.

Within this combination of empirical and interpretational analysis, I focus on the reactions of human characters to artificial life forms based on their speech patterns and content. What differences are there between the speech of organic and synthetic people and how do these distinctions correspond to the attitudes of human characters towards artificial life forms? Within these ten stories, the human characters have strong, but widely differing, reactions to the intelligent technological life forms they encounter, and I predict that the speech patterns used will reflect these differences.

The period I am studying extends from the beginning of computing to the popularization of personal computers, ending in the 1980s with the publication of Donna Harroway's essay "A Cyborg Manifesto," which is a landmark text for Posthumanism and ground-breaking for its positive representation of the potential of artificial life forms. Supplementing her discussion of the impact of fictional cyborgs on society, I also consider Alan Turing's essay "Computing Machinery and Intelligence" considering the "The Imitation Game" and the vast potential and considerations involving artificial intelligence in the field of computer science. Through the lens of Harroway's work with the scientific considerations addressed by Turing, I analyze the depiction of artificial intelligences in science fiction and to what extent the authors share Harroway's positive vision.

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