

**Jay Clayton, "The Ridicule of Time: Science Fiction, Bioethics and the Posthuman." *American Literary History* 25.2 (2013): 317-43.**

Focusing on the bioethical challenges associated with genetic engineering, Jay Clayton's article explores the relation between postwar works of science fiction and the recent policy-oriented publications on transhumanism that often allude to these works. This wide-ranging exploration covers a broad range of texts, from Arthur C. Clarke's *Childhood's End* (1953) to Octavia Butler's *Dawn* (1987) and Francis Fukuyama's *Our Posthuman Future* (2002), and further includes references to the writings of H.G. Wells and Margaret Atwood and to films such as *2001: A Space Odyssey* (1968) and *Gattaca* (1997).

On the basis of this material, Clayton makes several claims about bioethical fiction and non-fiction. In contrast to "the mistaken notion that SF warns against the consequences of biotechnology," he argues that literary science fiction "is overwhelmingly positive about the possibility of transforming the human" (319). Additionally, Clayton contends that the postwar interaction between literary science fiction and bioethics can be divided in two main phases: an early phase (until the late 1950s) which explored evolutionary genetic change and advocated tolerance of the new minority species, and a later phase (from the mid-1970s onwards) which concentrates on deliberate genetic engineering and actively embraces new hybrid identities. Both phases suggest that the message of such books cannot be reduced to simple "advocacy for or against biotechnology" (328) and that they are inextricably linked to contemporary social issues, the fears provoked by totalitarian regimes in the first phase and new social movements defending the rights of female, queer, disabled and immigrant citizens in the second. As far as non-fiction is concerned, Clayton points out that scientists and policy makers writing on bioengineering often use the term 'science fiction' in a derogatory sense that fails to do justice to the class of literature it can also refer to. At the same time, he criticises "[l]iterary theorists of the posthuman" (320) such as Cary Wolfe and Katherine Hayles for paying more attention to Foucault, Haraway, Luhmann and associated theorists than to the discourse of bioethics, and consequently, for neglecting to "bring the analysis of posthumanism to bear on problems with tangible impact on patients, health-care providers and scientific policy" (339). Turning to this neglected discourse himself, Clayton argues that jeremiads as well as encomia about biotechnology use various rhetorical strategies to hide their differences from scientifically grounded projections as well as their similarities with literary forms of science fiction. He therefore concludes that literary fictions are more suited to performing thought experiments than such pseudo-scientific works of non-fiction, as "[t]he formal conventions of fiction alert readers to the provisional nature of analogy and extrapolation" (332-333). Perhaps surprisingly, it appears that "nonfiction about the posthuman is more susceptible to the ridicule of time than works of SF" (333).

Clearly, these are important claims and there is an admirable breadth and ambition to the article. Clayton's fascinating analysis of bioethical themes in modern science fiction will provide scholars of literature and science with a solid foundation for further analysis, while the argument that theorists working on posthumanism should consider non-fiction and policy-related publications is an important intervention, even if the specific benefits of Clayton's alternative approach for patients, health-care providers and scientific policy are not detailed. Overall, however,

the article leaves a number of questions unanswered. For one thing, the idea that some works of fiction and non-fiction are more exposed to “the ridicule of time” than others could be seen as unproductive; as Clayton himself indicates, the accuracy of their predictions is not the sole standard for evaluating such works. The argument that science fiction is more positive about the possibilities of transforming the human than most people think is interesting. However, it depends on a bracketing of cinematic and literary forms of dystopia, which are consequently relegated to the sidelines and treated collectively as “a special branch of science fiction,” as “the exceptions, not the rule” (319) or simply as “outliers” (339). It might therefore be more accurate to say that the subgenres Clayton is interested in are positive about transforming the human, and it remains to be seen whether dystopia can be disentangled so easily from other subgenres of science fiction. Clayton does, however, indicate that the truth is more complex, suggesting that in first wave science fiction novels “[t]he suspicion of genetic engineering [. . .] coexist[s] uneasily with enthusiasm for the arrival of a posthuman stage” (324), and also that in Butler’s second wave work there is an ambiguous, “complicated” (329) portrayal of invasive biomedical technology. More generally, does their contextual dimension not imply that there is much more to these books than the science, strictly speaking? Does Clayton’s approach not risk reducing these books to their “take-home lessons” (319) as well? Finally, the article does not discuss the “formal conventions of fiction” (332) in detail, which implies that the precise benefits associated with literary fiction – not to mention its relation with our broader “science-fictional” (319) frame of mind – remain unclear. But these unanswered questions ensure, no doubt, that Clayton’s work will be vital in inspiring further research on genetics, biotechnology and science fiction.

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