patchings up, the hair-line fractures. It is the real thing, however damaged. "We aren't taken in," says a voice at one point. But, emphatically, we are: we travel in their closest grain its lines of lack, explore the space between, to listen to the rustlings of its underworld, and be haunted by its mirages.

Susan Strehle Fiction in the Quantum Universe Chapel Hill: University of North Carolina Press, 1992. Pp. 282. \$22.50; \$62.95 Reviewed by Ben Stoltzfus

C.P. Snow argued in 1959 that the different world views of science and literature were responsible for an irreconcilable divergence. Susan Strehle's contention, three decades later, is that the *Weltanshauung* of physics and "actualism" is essentially the same. Actualism, although perhaps only a variant of metafiction, balances attention to questions of art and science with a deliberate meditation on the world of the signified. Whereas much of metafiction foregrounds the signifying process, Strehle maintains that actualism depends on the interaction of language and reality within the context of modern physics. Her thesis is that the world of relativity, uncertainty, chance, chaos, and indeterminacy appears in both content and form in the works of Thomas Pynchon, Robert Coover, William Gaddis, John Barth, Margaret Atwood, and Donald Barthelme.

Strehle's premise is that "reality" is no longer "realistic," because in the quantum universe reality is discontinuous, energetic, relative, statistical, subjectively seen, and uncertainly known. One work from each of the above authors illustrates these characteristics—terms taken from the new physics and which are used to define actualism as a genre. However, despite Strehle's contention that actualism is not metafiction, the terms she uses also define metafiction. Although metafiction's focus on language as the prism that defines reality is not always acknowledged by writers or critics, the dissemination and indeterminacy of language that Jacques Derrida addresses are the direct result of Einstein's relativity, Heisenberg's uncertainty principle, and Bohr's complementarity. Indeed, commentators have been making the connection between field theory and metafiction for some time, though perhaps not with the same insistence or detail that Strehle does.

Her point, and it is a point well taken, is that actualism is more realistic than the so-called realism because actualism has incorporated the changes in our understanding and perception of reality attributable to the new physics. Realistic fiction represents a Newtonian world which is linear, causal, and continuous because the traditional novelist believes that he or she can depict an objective reality whose essential structures are stable. In contrast, the actualist writer, unlike the realistic one, "displaces Newton's absolute space with the interactive field theorized by Einstein, Heisenberg, and Bohr." In the field model there is no longer a window on the world or a reflective mirror. Because Strehle wants the "actual" and the fictional she rejects not only realism, but also the more extreme forms of metafictional experimentation. This may explain why the works of Ronald Sukenick or Raymond Federman, among others, are not mentioned in her study, even though their metafiction, like actualism, derives from the same new physics.

On one level Strehle argues that actualism's formal innovations are the artistic equivalents of the new physics, yet on another level she rejects metafictional works that do not have one foot firmly and visibly planted in the old reality. Actualism, she argues, must blend fiction and modern physics with direct references to Einstein, Heisenberg, relativity, uncertainty, and discontinuity. Although such references within a novel confirm the writer's awareness of some of the implications of the new physics, why should they be essential to a definition of the genre? Overtly or covertly metafiction already incorporates the physics Strehle values and the connections she defines so well. "Actualism," she says, "describes a literature that abandons the old mechanistic reality without losing interest in the external world." However, metafiction, no matter how extreme its formalism, always teaches us that reality is defined and structured by the signifying system. Foregrounding the system does not eliminate the reality it strives to replace. The gap between the signifier and the signified exists, to be sure, but that doesn't mean that the signified has been eliminated. Metafiction, like abstract art, rivals nature precisely because it does not want to copy it. But such fictions, no matter how abstract or experimental, and despite their formal insistence, are never "pure" self-reflexive artefacts. The problem is always one of representation because "the false mirror" of art, as René Magritte's title and painting of an eye suggest, is inevitably arbitrary and subjective.

Although I don't think actualism as a term will catch on, nor do I think it's needed, Strehle has produced an informed, scholarly, and intelligent book that delineates the interrelations between physics and literature, particularly American literature. Her chapters on *Gravity's Rainbow; The Public Burning; JR; Cat's Eye;* and *Paradise* are cogently presented and wonderfully written. They are interesting and compelling analyses of each author's work. Despite our disagreements on terminology, *Fiction in the Quantum Universe* is an important contribution to our understanding of fiction in the postmodern era.

Janet Egleson Dunleavy, ed. Re-Viewing Classics of Joyce Criticism Urbana: University of Illinois Press, 1991. Pp. 229 Reviewed by Michael Groden

It might seem like a parody of the so-called "Joyce industry": fifteen commissioned essays by prominent critics discussing not Joyce's writings but other critics, *Re-Viewing Classics of Joyce Criticism* works quite well, however, to demonstrate the continuing vitality of the best pre-1960 criticism. Overall, the book provides the beginner and experienced critic alike with a good introduction to a different critical era when, in Janet Dunleavy's words, "the variety of ideas to be examined was limited only by curiosity, imagination, and a reader's willingness to find new puzzlement, insights, and delights on every page." The essays cover book-