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Against Genre/Theory: The State of Science Fiction Criticism

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John J. Pierce, *Great Themes of Science Fiction: A Study in Imagination and Evolution*. New York: Greenwood Press, 1987. ix + 250 pp.

C. N. Manlove, *Science Fiction: Ten Explorations*. Kent, OH: Kent State University Press, 1986. x + 249 pp.

Albert Wendland, *Science, Myth, and the Fictional Creation of Alien Worlds*. Studies in Speculative Fiction, No. 12. Ann Arbor, MI: University of Michigan Research Press, 1985. 200 pp.

I. Genre Criticism

> This new taking of responsibility for language and
> literature, for the language of literature, which I am
> calling critique, has, finally, important implications
> for genre theory or for generic criticism. What I have
> said would imply not that generic classifications or dis-
> tinctions and the use of these as a guide to interpreta-
> tion and evaluation are illegitimate, without grounds,
> but that they are in a certain sense superficial.
>   J. Hillis Miller, "The Search for Grounds
>   in Literary Study"

> Whatever the state of genre theory, the present nature
> of literary forms reveals a pressing need to go beyond
> Aristotle.
>
> Slusser and Rabkin, "Introduction:
> Toward a Theory of Interaction"

The 1980s have witnessed a number of changes in literary studies, most particularly a heightened interest in literary theory. A glance at any press's new listings reveals that it is very fashionable to be "doing theory" or "resisting theory" or being "against theory." In this same time period, however, the theoretical study of narrative, narratology, has been in decline or discredited. We might conveniently date the retreat from narratology here in America with the appearance in 1978 of Seymour Chatman's *Story and Discourse*, where he rejects the idea of narrative grammar: "For the present, the notion that all narratives can be successfully grouped according to a few forms of plot-content seems to me highly questionable. . . . We are not ready yet for a massive assault on the question of plot macrostructure and typology" (Chatman 1978: 95). In the late 1970s narrative grammars went the way of generative grammars, down the theoretical drain. But we should return to the sentence that I've elided in the quotation above, where Chatman indicates the appropriate direction for narrative studies: "Work should proceed genre by genre, for much is to be learned in comparing narratives from a content-formal point of view" (ibid). Examining classes of narrative from a "content-formal" standpoint, studying genre, is exactly what has *not* happened in narrative studies. In general, there has been a turning away from genre, a discrediting of the very concept of genre. The assigning of generic names, the specification of generic features—such activity is, at best, merely heuristic; at worst, simply reductive. It is, the title of a recent piece by Robert Scholes suggests, a matter of "boiling roses" (1987). Such an attitude towards theory and genre seems particularly true in science fiction scholarship, as a review of some of the more recent book-length studies reveals.

   John Pierce's book, the second in his three-volume history of science fiction and the twenty-seventh in the Greenwood Press series on science fiction, represents a good example of science fiction criticism at its most theoretically unsophisticated and trivial. In his first volume, *Foundations of Science Fiction*, Pierce deals with general themes which the genre has initiated and explored in the last 200 years, such as the idea of technological progress, the literary appropriation of space and time, and the emergence of evolution as an informing biological and social paradigm. His final volume, *When Worlds Collide*, promises to deal with the conflicting value systems, the different world views, that subtend science fiction in general, with the "ideas *behind* the ideas"

(*Great Themes*, p. xv). One can sense a certain amount of confusion already: How does one distinguish between the general themes and the world views of science fiction? What is the relation between the two? In his second volume, however, Pierce seems to be on firmer ground. Here he examines "some of the common *specific*, as opposed to *general*, ideas of sf" (p. xiv), forging "not so much a history of authors and works as . . . a history of ideas themselves and how they have evolved" (p. xv).

Great Themes thus tries to straddle both synchronic and diachronic axes, each chapter presenting us with a specific science fiction theme or idea and then tracing the evolution of that idea through historical time. And it does accomplish that modest objective. The nine chapters deal with, successively, aliens, supermen, immortality, apotheosis, artificial intelligence, technology, wars, disasters, and alternate-dimension science fiction. Within each chapter Pierce faithfully documents the first historical appearance of a theme and then chronicles, for the most part in chronological order, the variations that subsequent authors have worked on that theme. Pierce has done his homework thoroughly. We learn in the disasters chapter that Mary Shelley's 1826 work *The Last Man* perhaps borrowed its title from Jean Baptist de Grainville's 1805 work *The Last Man*. Again and again, Pierce cites examples to remind us that the great ideas of science fiction have a long, mostly overlooked, pedigree. But aside from titles and dates, we learn little else. Because Pierce is charting the evolution of each theme, he limits himself for the most part to plot summary; here, he says, is what so-and-so does with the alien-encounter theme or the disaster theme. The diachronic method within chapters obviates the need for a rigorous system—Pierce gives us only local, ad hoc groupings—and authorizes the extensive use of the plot summary.

Clearly, this approach leads to several problems, not least of which is rather tedious reading. For one thing, there is very little in the way of "hard," specific, literary analysis. Pierce is satisfied to sketch out in general terms the implications of a theme's various treatments, with formulations that either state the obvious ("It is hardly a revelation that fear of the alien says as much about the evil in ourselves as about any evil we may encounter in the depths of space" [p. 18]) or degenerate into clichés ("When and if Contact comes, perhaps the realization that life everywhere has its limitations as well as its strengths will stand us in good stead" [p. 23]). One is tempted to suggest that Pierce might have saved himself and his readers a great deal of trouble by converting his work into an annotated bibliography of primary sources. He could then have retained the chapter/theme format, the chronological order, and the plot summaries.

In terms of science fiction theory, though, the work highlights other

problems and gaps. In his preface, Pierce singles out science fiction as a "literature of ideas." Indeed, he intends to provide in the volume a systematic, if not exhaustive, overview of some "great" science fiction ideas. In this formulation, then, an "idea" is equated with a "theme." If we look at the chapter headings, we conclude that a theme (or an idea) consists of what Suvin calls a *novum* (1979), the factor of estrangement that differentiates the science fiction world from the reader's experiential world. An example of a novum would be an alien's visiting Earth (as happens in the movie *E. T.*). Now the encounter with the alien might lead to the articulation of a *theme*, as Pierce himself notes in his chapter on alien encounters: "*Understanding* is the theme of all such works that explore evolution of aliens, alien worlds, and alien ecologies" (p. 16). As Pierce's assertion makes clear, the treatment of a novum conduces toward the articulation of a theme, establishes certain thematic parameters, or circumscribes a certain thematic field.[1] Pierce's imprecise substitution of theme or idea for novum obscures his system of classification and his readings of texts. A brief comment in his preface to the first volume, *Foundations of Science Fiction* (xiii–xiv), perhaps explains why Pierce relies on such usage. There, he refers to Suvin's *Metamorphoses* as "so relentlessly academic" as to "lack any feel for the *experience* of science fiction." Clearly, Pierce is put off by theoretical approaches to science fiction because they somehow betray his humanistic commitment to the pleasures of the text. The point is, however, that regardless of how one views Suvin's book, the understanding and application of a concept such as "novum" would have considerably clarified Pierce's treatment of science fiction.

There are other problems as well, also linked to Pierce's resistance to theory. The list of chapter subjects itself reveals some of the typological confusion inherent in Pierce's approach. The chapters on supermen, immortality, and apotheosis all concern themselves with humans who transcend human boundaries, either through mutation, gradual evolution, alien intervention, or technological breakthrough. In other words, they share a common type. Indeed, insofar as fictions using these novums present us with an encounter between normal-human self and superhuman other, they can be said to be subsets of alien-encounter science fiction. Pierce's (lack of) method passes over or ignores such affiliations. Of course, he might counter that it was not his intention to create a typology of science fiction, that he in fact finds such a project repellent, but he cannot get off so easily. His groupings of "great ideas" lead to numerous confusions. How, for example, should we classify science fiction that uses as its novums the process of

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1. Confusion of theme/novum with theme/idea occurs frequently (cf. pp. 50, 176).

genetic engineering to create new life-forms capable of living on alien worlds? Is this an example of "Aliens and Alien Worlds" (chapter 1)? "Supermen and Other Mutations" (chapter 2)? "Machines for Living" (chapter 6)? Pierce's lack of a theory makes such questions unanswerable. With a theory which tried to generalize and classify novums and which employed Jakobson's notion of the "dominant" (1971), one could answer these questions. And the theory becomes all the more important when one realizes that such answers are instrumental if one is to know how to read that fiction, how its thematic fields are circumscribed. Pierce's preface to *Great Themes* seems to suggest that he sees the primary function of science fiction as providing readers with an "understanding of the real possibilities of the future," and thereby fostering intellectual flexibility. Pierce's naive view of the function of science fiction is a product, I would argue, of his theoretical illiteracy. Serious readers of science fiction expect more than imaginative futurology. They want the answers to the very questions that Pierce's lack of theory renders unaskable.

C. N. Manlove's *Science Fiction: Ten Explorations* is a more ambitious, and ultimately more useful, book of criticism. It sets out to counteract a trend that Manlove sees as dominating academic criticism of science fiction, namely, the tendency to valorize the genre's cognitive dimension, to emphasize the ways in which science fiction reflects or reveals "dangerous features of our own society and selves"; according to Manlove, the critical consensus seems to be that science fiction "is only really worth considering when it tells us something about ourselves" (p. 1). Such an emphasis, he claims, tends to privilege that science fiction which is extrapolative and satiric in mode. It also denies the newness and strangeness of science fiction worlds and beings, reducing them to emblems "of some deep meaning that tells us more about our condition" (p. 2). Manlove's purpose is to rectify this state of affairs:

> This book is directed to restoring attention to the fictional element in science fiction. We need to get back to the creative impulse behind much science fiction and to the strangeness of the worlds it puts before us. . . . This is in effect a plea for a renewed awareness of the alien in science fiction, the alien as the indestructible this-ness of the worlds it makes, rather than as a projection only of our fears or hopes.   (Ibid.)

Manlove has another objective. He claims that there is little in the way of "extended and plain literary criticism of science fiction" (ibid.), that science fiction critics "find it hard really to talk about these works as literature" (p. 3), and that his book fills these gaps. As its subtitle promises, the book consists of "ten explorations," ten close readings of

novels that highlight their strangeness and explore their literariness. The novels analyzed, each in a separate chapter, are: Asimov's *Foundation* trilogy, Pohl's *Alternating Currents*, Aldiss's *Hothouse*, Herbert's *Dune*, Silverberg's *Nightwings*, Farmer's *To Your Scattered Bodies Go*, Clarke's *Rendezvous with Rama*, Simak's *Shakespeare's Planet*, Attanasio's *Radix*, and Wolfe's *Book of the New Sun*. This is, it seems to me, a judicious selection of texts, one that includes four "classics" by recognized masters, and perhaps four or five texts that have received little or no attention. The list includes two multivolume texts (Asimov's and Wolfe's) and one collection of short stories (Pohl's). It is heavily weighted toward American science fiction and unfortunately deals with no women writers. And, as the dates in the table of contents remind us, the books are "read" in chronological order, beginning with Asimov's *Foundation* trilogy (1951–53) and ending with Wolfe's *New Sun* (1980–83). The refusal to order the works in any other way (thematically, for example) underscores Manlove's resolve to honor the integrity of the individual text.

Insofar as his intent is to provide a number of close readings of science fiction texts, Manlove has succeeded. *Ten Explorations* should prove to be a useful pedagogical tool by providing readers with solid interpretations of both well-known and lesser-known works. As might be expected, some readings (of Aldiss, Silverberg, Attanasio) are more persuasive than others (of Clarke and Wolfe). Even when he is dealing with works bearing a sizable critical heritage, Manlove is able to bring new light to the work (Asimov's trilogy) or to forge a particularly totalized reading (Herbert's *Dune*). He points out that Asimov's fiction lacks a moral dimension and that Farmer's *Riverworld* series rejects inwardness. His endnotes reveal a mastery of previous scholarship, and his bibliography cites a number of little-known critical sources.

Insofar as his intent is to articulate the grounds for the "sense of wonder" that some science fiction conveys, "to find terms in which to talk about the imaginative energy behind science fiction" (p. 14), however, Manlove finally fails. When he tries to get at this quality of the genre, his commentary becomes fatuous: "The first thing that strikes us about these and other images in the book is their originality. How did the author manage to think of the burnurn plant in the Tips, a plant which develops transparent seed-pods that can be used to focus the sun and burn the enemy?" (p. 66). As Manlove admits in his conclusion, criticism "lacks a language to evaluate inventiveness except through admiration; all that can be done is to describe it" (p. 223). Since that is indeed the case, why should readers resort to such descriptions when they can go to the original in the first place?

The point is that criticism serves another purpose entirely, one that Manlove acknowledges in his conclusion. Criticism must not merely

honor the originality of science fiction inventions, it must also show "how they create patterns of significance that turn these books into genuine works of art"; it must integrate "that invention with a larger purpose" (ibid.). "Patterns of significance," "a larger purpose," these are phrases connected with the true critical enterprise—interpretation, the attempt to give *meaning* to the text. And this, of course, is exactly what Manlove is for the most part doing, and in some places, doing very well: "Herbert drives us to an awareness that beneath the individual consciousnesses and desires of his characters lies a deeper and unconscious prompting over which they have no control" (p. 95).

Since interpretation is ultimately the critic's (if not the theorist's) primary function, the critic's interpretive assumptions become of major importance. And Manlove's should be pretty obvious. He rejects readings and readers that explore the text's relation to the real world, that dwell on the referential function of the text. He is concerned to "talk about the books as literature" (p. 3), to establish their literariness. He insists that we can best do that by looking at individual texts in isolation. These are, of course, the assumptions of New Criticism. There is no small irony to the fact that Manlove is proposing a "new" way of looking at science fiction that is itself quite old and (some would say) worn-out.

There is even greater irony in the fact that this attempt to "explore" the originality and inventiveness of ten very different science fiction texts should wind up making them seem so very similar. This is made painfully clear in both the introduction and conclusion, where Manlove identifies some common features (i.e., themes) of the texts he has selected. Given his (new) critical presuppositions, it should come as no surprise that Manlove discovers that these works share a concern with dualism and duality (especially mind/body, determinism/free will, stasis/flux), or that many of them are characterized by the recurrent image of the self in flux, or that the ultimate reading of these works can best be stated in terms of paradox.[2] *Ten Explorations* is a book which turns its back on the "low" mimesis of reference (the work in relation to the world) for the "higher" mimesis of New Criticism, where the work is seen to enact or reflect a more spiritual state of balance or equipoise, the resolution of internal tensions.

There is nothing inherently wrong with New Critical readings of science fiction texts; in the case of unknown texts, they are pedagogically useful. But one can argue that a *book* of such readings represents a reactionary retreat in science fiction studies. In part, Manlove's return to

2. Manlove, on Simak: "It is only those who give away who gain" (p. 168). Manlove, on Attanasio, "To give up the self is to gain true self" (p. 188). Cleanth Brooks would be proud.

the text is a retreat from theory, as he makes clear in his introduction. There he refuses even to define the genre:

> It is possible to produce a reductive formula for the various features out-
> lined so far, such as "Science fiction is a literature concerned with the
> possibilities of the future and the survival of the race through change," or
> even, "Science fiction is a picture of the germ plasm's drive to change and
> survive, under whatever conditions," but the first sounds too ethical, the
> second too instinctual, and both too abstract. The definition may provide a
> fence around the various books, but it does not get close enough for us to
> catch a central pulse.   (P. 13)

Definitions (and, by extension, theories) are formulaic, reductive, dis-
tancing, "too abstract." Conspicuously absent from Manlove's bibliog-
raphy are the pioneering works by science fiction theorists, such as
Russ (1975), Scholes (1975), Huntington (1976 [1975]), Suvin (1979),
and Lem (1984). Nor are these works mentioned anywhere in the text.

And *Ten Explorations* suffers from their absence. In his introduction,
Manlove cites, as central themes of science fiction, its concern "with
finding things out" (p. 9), its emphasis on the contingency of reality
(pp. 10–11), and its insistence on a technical or rational explanation
for its strange phenomena. A short course in narrative theory might
suggest to Manlove that these are not "themes" of science fiction but
rather functions of its discourse, which is predicated on or rooted in a
scientific epistemology. The discourse of science fiction dictates that its
worlds are radically contingent, but that they can gradually be under-
stood by a systematic application of the scientific method. Indeed,
some of the tensions that Manlove describes in the individual novels
he discusses arise when the story of the novel undercuts its discourse,
when mysteries encountered resist ready-made explanation. Famil-
iarity with the elementary distinction between story and discourse
would have made Manlove a better reader of individual texts.

A related case might be made against Manlove's reading of Clarke's
Rendezvous with Rama. Manlove insists that the "whole book is orga-
nized along the lines of a steady tapering into the unknown" (p. 153),
that the novel charts "the failure of human intelligence with the data
presented to it" (p. 155), that it critiques "the human need to give
sense and purpose to the void" (p. 156). Now this is a drastic misread-
ing of the novel, a misreading that is partly the function of a failure
to identify or specify its dominant novum. Clarke is concerned not so
much with the need to "give sense and purpose to the void" as with
the need to make sense of a giant artifact, and his work chronicles and
celebrates a series of successful cognitive appropriations by humans in
that endeavor. Manlove's reading of Wolfe's tetralogy also suffers from
his lack of theory. He concludes by asking just what the work is about
and by responding, rather lamely, that "there is no answer" (p. 213).

He is unable to answer the question, I would argue, because he fails to identify the work for what it is, *science fantasy*, an identification that would have helped him to understand the work's *about*-ness (or even lack thereof). Now, someone who refuses to define "science fiction" would certainly balk at the idea of defining an oxymoronic sport such as "science fantasy." But without generic names, without theoretical frameworks, the critic might well find him- or herself answering, "there is no answer."

Albert Wendland, in *Science, Myth, and the Fictional Creation of Alien Worlds*, is not at all reluctant to define science fiction; he gives his definition in the first paragraph of chapter one: "Science fiction is fantasy posing as realism because of an apparently scientific frame" (p. 11). Nor is he reluctant to provide a theoretical framework with which to read and evaluate science fiction; one of the book's two parts is devoted to the elaboration of just such a framework. In the theoretical first part, "Science and Myth," Wendland tries to explore and explain (to theorize) science fiction's "apparent connections to both science and myth, to activities which seemed contradictory and which thus suggested a contradiction in SF itself" (p. 1). In order to do this, Wendland argues that we must turn our attention from what science fiction is to what it does, "from its form to its two basic functions" (p. 49), one essentially "scientific," the other "mythic." He identifies the two "modes" of science fiction which serve these functions as the "experimental" and the "conventional." By the former, Wendland intends science fiction that "deals objectively with social trends, extrapolation, social satire, prophetic warning, or speculation on scientific discoveries that might affect our world" (p. 3). It is "experimental" insofar as it resembles scientific theorizing, the proposal of a speculative model in order to test certain hypotheses. "Conventional" science fiction, on the other hand, "repeats and supports the assumptions of the genre, the notions passed down and agreed upon by the SF ghetto writers and fans." This is commodity science fiction, designed to provide entertainment and to appeal to readers' subjective longings. It is "mythic" insofar as it adheres to and perpetuates a futuristic "scenario" that provides comfort and promise to certain special groups within technological society (ibid.).

The main difference between the two modes, Wendland asserts, lies in the concept of "objectification"; experimental science fiction has more objectification than conventional. Objectification is "a self-reflexivity, a shift from a perception on solely an object to the inclusion of the perceiving subject too, the clarification of the methods of perception as well as the showing of the object perceived, the examining of the subject's *effects* on the object—in other words, the inclusion of

the observer in the observation" (p. 4). Experimental science fiction is thus doubly linked to modern science, both for its notion of model and for its awareness of the subject/object problematic. Because of its self-consciousness, experimental science fiction calls into question its own contexts, namely, the context of the genre or the context of its social/ideological assumptions. Conventional science fiction, on the other hand, unselfconsciously adopts certain standardized motifs and does not interrogate its own assumptions. The difference between the two modes Wendland summarizes as follows:

> SF can act as a mirror or as a window depending on how it is maneuvered by the author. It is like a pane of glass that can behave in two ways. If held so that the light shines directly through it onto the author's creations, the reader is sometimes fooled into thinking that the glass is not there, that he is seeing genuine aliens, genuine futures, genuine other worlds that have nothing to do with him, the wonders of other places and times, of pure escape, of playing in the presumed sensation of difference. But if held in a slightly different way, a pane of glass also reflects, and the onlooker might catch a glimpse of himself, might see his own image even stronger than that of the new scene. When such occurs, SF reflects the perceiving subject, dialectically "objectifies" him to himself as one who cannot be avoided when looking at those supposedly new scenes, because he is both the perceiving subject and often the creator of those scenes. Conventional SF is tilted so that we do not see the glass; experimental SF is arranged so that we do. (Pp. 6–7)

At first Wendland claims that he intends no "inherent value judgment" in the conventional/experimental distinction (p. 3), but later he reverses himself, admitting to a "strong element of criticism" in the "conventional" label; such fiction uses its science fictional elements as a "genre" instead of as a "literary device," "as an end in itself instead of as a means to a separate end" (p. 34).

Now, there are so many problems here—with the definition of science fiction itself, with the experimental/conventional distinction, with the concept of objectification, with the question of value judgments, and with the distinction between "genre" and "device"—that one does not know quite where to begin. For starters, we might note that, although Wendland includes the important theoretical works of the 1970s and 1980s (by Suvin and Scholes as well as by Ketterer [1974], Wolfe [1979], Rose [1981]) in his bibliography, he has not incorporated them into his thinking about science fiction. His distinction between experimental and conventional modes, for example, could be considerably clarified or at least situated through reference to Scholes's (1975) distinction between cognitive and sublimative functions, or even to Aldiss's (1973) distinction between the thinking and dreaming poles of science fiction. The extent of Wendland's theo-

retical illiteracy is prefigured in his very definition of science fiction, "fantasy posing as realism because of an apparently scientific frame." Such a definition ignores a wide spectrum of critical consensus about a fundamental distinction between fantasy and science fiction—that the former genre intentionally violates or contradicts the conventional norms of possibility, whereas the latter genre adheres to them. Like fantasy, science fiction is an "estranged" form; they are both, in traditional terms, romances. But science fiction deals with the unknown, not the impossible, and fantasy, with the unreal (because not possible, according to conventional norms of possibility). Science fiction is not a subset of fantasy, nor fantasy masquerading as something else. And this leads to what is even more questionable about Wendland's definition, the idea that science fiction is posing as realism by donning an "apparently scientific frame." Wendland here converts the "science" in science fiction to a matter of appearance, a façade or imposture. And he "proves" his point by noting that science fiction authors sometimes get their facts, or their science, wrong. He also suggests that the "science" in science fiction is a kind of window dressing that promotes or underwrites or adds to the text's *vraisemblance* (Culler 1975: 138ff.). These formulations and charges all misrepresent science fiction's real connection with science, which has little to do with scientific accuracy or scientific patter or scientific window dressing. The point is that the *discourse* of science fiction is firmly grounded in scientific epistemology; built into the ontology of the genre is a respect for, if not a wholesale belief in, the ways in which science comes to know the world. The science in science fiction is not merely a matter of embellishment; it informs the epistemology of the genre, subtends the rhetoric of the fiction, and constrains the aesthetic configuration of the tale. When one is guided by no theory, one then reduces discursive operations to a "literary device" (p. 15; cf. the vocabulary of New Criticism).

There are similar sorts of problems with the conceptual framework of Wendland's "functional" analysis of science fiction. His distinction between experimental and conventional modes seems at first to be a contrast between "social science fiction" and "space opera," or perhaps between cognitive and sublimative science fiction. The former confronts, in a serious and probing way, contemporary issues in futuristic settings, thereby making statements "on social trends, technological development, extrapolation, etc.," and revealing something to us about the way we live now. Conventional science fiction, in contrast, "appeals more to readers' subjective longings" and is content to serve as an entertaining commodity drawing on conventionalized (and hackneyed) motifs. A story can either "blast off into galactic fantasy, producing conventional SF, or face [the situation] directly and use SF as a literary instrument for dealing with a particular social prob-

lem" (p. 50). At other times, the experimental/conventional distinction seems linked to that between extrapolation and speculation, as when he suggests that Aldiss's *Hothouse* and Russ's *And Chaos Died* lack experimental force because they both present us with forms of humanity "so futuristic as to be separated from ourselves" (p. 126). A work is less effectively experimental if its "setting and events are too far away in space and time to be immediately applicable" to our contemporary world (p. 111).

The introduction of the concept "objectification" only further obscures or discredits the distinction. Objectification involves the "consideration of context, the nature and environment of the subject as well as the supposedly separate object" (p. 52). The more objectification, the more experimental the text. In terms of the context of the science fiction genre, this means that a self-conscious, metafictional text is more experimental than the unselfconscious text. And yet one can imagine a self-conscious text (e.g., the *Star Wars* trilogy) that is essentially "conventional" or an unselfconscious text (e.g., *Dune*) that is experimental. In terms of the context of the human and social assumptions informing the text as a whole, the concept of objectification privileges those texts that make the subject's reaction to the object (the novum) their main focus, that "thematize" the response of the perceiving subject. Because Wendland believes finally that "humanity is SF's only subject and not the star-flung universe" (p. 54), he privileges texts which dwell not on the novum but on the protagonist's response to the novum.

This privileging of the thematized subject has a number of important ramifications in Wendland's readings of specific texts. First, it necessarily means that Wendland prefers science fiction featuring a world with one degree of interpretation, a world which is investigated or experienced by a perceiving subject. And since a work is more experimental if that subject is tied to our own contemporary world, Wendland prefers science fiction in which an ordinary Earthman serves as central observer. Because the objectification of that observer is the measure of the work's worth, Wendland is at pains to examine the reaction of the perceiving subject. As a result, the novum is almost entirely ignored. Wendland's analyses of Aldiss's *Hothouse* and Lem's *Solaris*, for example, say almost nothing about the former's hothouse world or the latter's enigmatic sentient ocean. Manlove's charge that certain forms of science fiction criticism are reduced to the simplest forms of functionalism seems all too frequently true in regard to Wendland's work. To suggest that Ballard's *Drowned World* celebrates "a 'drop-out' mentality" is to "read" that work in the most trivial way.

As should be obvious, Wendland's "theory" of science fiction has no room for the reader, no real understanding of how the reader con-

tributes to the creation and interpretation of science fiction worlds. The second part of the book, the application of the theory to a number of texts, supposedly deals with "alien-creation," the ways in which alien worlds are constructed. But Wendland makes no reference to the construction of the "absent paradigm" (Angenot 1979), the key readerly first step in the appropriation of science fiction worlds. His notion of reading is the extraction of relevant meaning, the reduction of the science fiction world to a lesson for today. Wendland has trouble with novels in which "readers are left to supply their own [context], to objectify the novels themselves" (p. 155). He prefers the relevant contexts to be supplied, the meanings spelled out in the reactions of the protagonist.

His insistence upon relevant, applicable, or significant meaning is, I would suggest, a function of his overall view of science fiction, that is, his disapproval of the genre. Although he does not admit it, Wendland sees science fiction as an escapist genre, guilty of ignoring a "larger human base," of appealing to a "one-sided individualism," of "catering to adolescent fantasies" (p. 120). The genre can only be absolved of these failings when it becomes more "mainstream," when it uses its science fiction "dressing" as a "mirror" on our own world, when it in effect *masquerades* as science fiction. This valorization of mainstream literature is, of course, inherent in his central distinction between experimental and conventional, with its built-in bias toward literature which is more intimately connected with our contemporary world. His theory, such as it is, prevents him from reading science fiction on its own terms.

II. Genre Theory

> The subject of the genre, it is clear, raises central questions for literary history and literary criticism and for their interrelation. It puts, in a specifically literary context, the philosophical questions concerning the relation of the class and the individuals composing it, the one and the many, the nature of universals.
> Wellek and Warren, *Theory of Literature*

> Genre is the point of intersection of general poetics and literary history; in a sense, it is a privileged object, which is enough to make it the principal subject of literary studies.
> Todorov, "The Origin of Genres"

The high-water mark for the "science" of narratology had to be the decade of the 1970s. Certainly that was the case for science fiction studies, which witnessed the appearance of at least a half-dozen

pioneering works in the theory of the genre during that decade. But then something happened, a change in emphasis and interest that had perhaps been prefigured by Barthes's shift from system to text in *S/Z* (1974 [1970]) and ratified by Todorov's repudiation of theoretical genres in the pages of *New Literary History* (1976).[3] There was a reaction against the excessive abstraction of theory, against the very idea of narrative grammars, against "deep-structural" generalizations; theoretical approaches were said to violate the individuality of texts or to yield commonplace generalities (superficial resemblances). Criticism was urged to return to the text, or to the context, a return ratified by the ascendancy of deconstructive readings within key critical arenas, itself a function of deconstruction's New Critical methodology and its attention to the privileged literary text (as in de Man). By 1982 the idea of theory had so changed that Knapp and Michaels could write a provocative essay, "Against Theory" in *Critical Inquiry*, by attacking the assumptions of deconstruction (Knapp and Michaels 1982). In the eyes of a number of people, theory was equated with deconstruction.

As should be clear, I believe that there is another sense to theory in literary studies, one in line with the nature of theory in scientific studies, that is, as having to do with the construction of theoretical models that can describe and account for a certain group of phenomena. I believe in genre theory in the "strong" sense; not as a set of family resemblances derived from extensive empirical research but, rather, as a hypothetical model based partly on intuition, partly on definition. As Brooke-Rose argues, "It has been important to reverse the traditional nonscientific process of accumulating facts and hoping that some general principle will emerge—often, in literary criticism, valid only for the one text examined; it has been important to adopt the scientific method of first postulating a hypothesis, a point of view (a model), through which to look at phenomena" (1976: 156).

Such a model would be descriptive in a double sense, that is, descriptive rather than prescriptive. As Wellek and Warren note, "Modern genre theory," unlike Neoclassical genre theory, "doesn't limit the number of possible kinds and doesn't prescribe rules to authors" (1956: 225). The scientific model is also descriptive rather than normative; it seeks to classify, identify, and describe the phenomena that prompted it and not to evaluate them. The essential difference between criticism and theory, Brooke-Rose claims, is that the goal of

3. It should be noted that Todorov's *NLH* piece gives up the notion of theoretical (as opposed to historical) genres but not the theoretical study of (historical) genres. But Brooke-Rose is right when, in the same issue, she identifies Todorov's move as a retreat in narrative theory, a retrenchment.

the former is to evaluate the individual text, that of the latter to de-
scribe or account for the system organizing a group of texts (1976:
144, 157). Since one is dealing with cultural systems and using lan-
guage models, one's theory cannot, of course, be entirely value-free,
so pure objectivity is an illusory goal to which one can only aspire.

The model one creates should also be both necessary and sufficient,
in Aristotelian terms. One should need the model in order to "make
sense" of an otherwise heterogeneous and disorderly field of phenom-
ena. At the same time the model should adequately cover the field,
explaining the combinations and permutations which exist within the
field. The problematical narrative subgenre "science fantasy" pro-
vides an illustrative example. All three critical books reviewed above
have real difficulties in dealing with texts I would call "science fan-
tasy." Pierce lumps such works into a catch-all chapter titled "On the
Edge"—the holding pen for literary mongrels. Manlove has difficulty
reading Wolfe's *Book of the New Sun* just because he fails to identify it
as science fantasy. And Wendland recognizes the affiliation between
Bradbury's *Martian Chronicles* and Lem's *Investigation*, but is completely
unable to articulate it (he drastically misreads the latter in order to
bring it into relation to the former) just because his theory ignores the
concept of "novum." Elsewhere, Michael W. McClintock makes the fol-
lowing distinction between science fiction and fantasy: "The worlds of
science fiction admit technology, but usually not magic; the worlds of
fantasy admit magic but usually not advanced technology" (1987: 33).
As a descriptive distinction, this is valid. But the important question
might be *why* this is so. Can we describe the discursive and ontological
rules of these narrative forms in such a way as to explain these differ-
ences, to account for them? And can we then determine what form the
hybridized subgenre, science fantasy, might take? In the pages that
follow, I would like to sketch out briefly a "theory of science fiction"
which can answer these questions.

The first step in defining the genre of science fiction is to specify the
components of a fictional universe in general. Working inductively, we
can say that a fictional universe invariably consists of two major com-
ponents or systems, roughly equivalent to the lexicon and syntax of a
language—a *world* and a *story*. The former includes the total repertoire
of possible fictional entities, that is, the characters, settings, and objects
(in SF these would include gadgets, inventions, discoveries, etc.) that
occupy the imaginal space of the fiction. The *story* connects and com-
bines the various entities, at an abstract level it consists of a systematic
set of rules governing the order and arrangement of those entities and
concatenating their interactions. Now, the generic distinctiveness of
science fiction lies not in its *story* but in its *world*. The various plots of
science fiction, once divested of their alien, otherworldly, or futuris-

tic appurtenances, coincide with the plots of realistic fiction. In order
to understand the nature of science fiction and its cognitive possibili-
ties, we must examine the unique configuration of its *worlds*. When
discussing the fictional worlds of science fiction, to avoid the implicit
assumption that the characters are human and the settings terran, I
shall use the terms *actants* and *topoi*. To summarize, then, a world con-
sists of a number of actants who populate, occupy, or exist in certain
implicit or particularized topoi.

Science fiction creates its worlds by inserting at least one factor of
estrangement from the basic narrative world of the author into its sys-
tem of actants or topoi. Once the author has posited the factor(s) of
estrangement, the discursive conventions of the genre dictate that the
fiction adhere thereafter to the laws of nature and the assumptions of
the scientific method and that it systematically account for its elements
of estrangement, its novums. A science-fictional world is thus hetero-
topic; it incorporates supernatural, estranged, or nonempirical ele-
ments, but grounds those elements in a naturalizing discourse which
presupposes the explicability of the universe. As Huntington notes,
science fiction is characterized by a "deep structure that unites in some
way scientific necessity and imaginative freedom" (1976 [1975]: 161).

In order to create a typology of science fiction, we must elaborate
on the components of fictional worlds. A fictional world consists of
a set of actants who exist continuously in an implicit or particular-
ized topos. The latter includes not only the settings (topology) through
which the actants move, but also the social order that structures their
interactions and informs their behavior. In addition, both the configu-
ration of those topoi and the morphology of the actants presuppose
an operative system of natural laws. A world is thus comprised of four
interlocking and interanimating sets of systems: (1) Actants; (2) Social
Order; (3) Topology; and (4) Natural Laws. It should be clear that
in any well-constructed and consistent world these systems are inter-
dependent and self-regulating.

Science fiction is characterized by the introduction of a novum into
one of these four systems, a factor of estrangement which transforms
the basic narrative world into a science fiction world. This factor may
be introduced into one or more of the four systems. A particular
fiction might be characterized by actantial, societal, *and* topological
transformations (as in Le Guin's *Left Hand of Darkness*, which features
ambisexual aliens, two contrastive nation-states, and an ice-age world).
In any particular fiction, however, one set of transformations serves
as the narrative *dominant*, by virtue of its precedence, instrumentality,
or centrality taking priority over the others. In the aforementioned
novel, for example, the actantial system is the dominant one, and Le

Guin's central drama involves the encounter between terran self and alien other. Any particular science fiction world, then, can be classified according to the type of novum which generates it, serves as its dominant, and establishes its typological identity. Using the dominant novum as the distinguishing feature, we can at once outline the following possible science fiction types and tender some tentative remarks about the thematic locus of each type. In this respect it is useful to examine each type in turn.

The transformation of the system of actants involves the introduction of an alien entity into a system that is totally human in realistic fiction. One or more of the actants is nonhuman or superhuman or subhuman. The alien novum can take the form of a sentient computer (Harlan Ellison's "I Have No Mouth and I Must Scream"), a monster (Mary Shelley's *Frankenstein*), or an extraterrestrial (Clarke's *Childhood's End* or, for that matter, *E. T.*). The *story* paradigm for this fiction would be the encounter with an alien. The reader recuperates this type of fiction by comparing human and nonhuman entities, typically exploring what it means to be human. The cognitive thrust involves a better understanding of self and other.

Science fiction presents the reader with a societal novum when it locates its story within an estranged or alternative social order. The paradigm here typically entails the excursion to a utopian or dystopian elsewhere, a "brave new world" or a "new map of hell," and the reader is invited to draw comparisons between the fictional society and the originary one and to establish normative frameworks. To this type belong many of what are considered science fiction "classics," including Wells's *Time Machine*, Huxley's *Brave New World*, Orwell's *1984*, Zamiatin's *We*, and Bradbury's *Fahrenheit 451*. The basic thrust of this science fiction type is toward better understanding of the dialectic between self and society.

The third transformation involves the insertion of a novum into the topological domain. Here we must distinguish between possible levels of transformation. The topos of a fiction includes both physical settings and objects (in the broadest sense), and topological estrangement can be effected at either level. At the local level, the estrangement occurs when a new and revolutionary object (gadget, invention, discovery) is posited. The simplest form that this type can take is the "gadget story," in which the invention of a single piece of hardware creates new possibilities or causes narrative complications. In general, gadget science fiction takes as its basic subject the possibilities and dangers of the products of technology; it explores the relation between man and machine, between self and technology. Asimov's *I, Robot*, for example, can be seen as an extended series of gadget stories,

meant individually to puzzle and entertain, but collectively to mediate the general problem of the correct relation between humanity and its technologies.

Topological estrangement can also take place at the global level, in the form of an imaginary landscape or novel planetology. Here the author posits, not an innovative object within a familiar world, but an entirely new world. The world may be our own Earth, transformed by catastrophe into a strange and foreboding environment, as in Ballard's *Drowned World*. Or it may be a totally natural, if highly unusual, imaginary world, such as the disk-shaped planet Mesklin in Clement's *Mission of Gravity*. It may even be an artificial construct, a global gadget, as in Niven's *Ringworld*. In alternate-world science fiction, the author is more concerned with working out the nature, properties, and idiosyncrasies of the imagined world than with examining the actants who populate it. In general, alternate-world science fiction addresses questions dealing with self and environment, such as how the environment shapes and conditions all forms of life, how humanity might adapt itself in order to accommodate new environments, or how humanity might remake alien environments in ways amenable to human existence. Alternate-world science fiction thus surveys actantial struggles to survive in the diverse topologies of an indifferent universe.

Actants, social system, and topography all presuppose a system of natural laws, which in general remain consistent and universal in all science fiction proper. The final form of estrangement, involving as it does the universal natural laws which subtend science fiction in general and the assumptions informing the genre's discourse, results in an "impure" form called *science fantasy*. Science fantasy is an unstable hybrid, combining features from science fiction and fantasy. Like fantasy, science fantasy contains at least one contravention of natural law or empirical fact, but, like science fiction, it grounds that contravention in a discourse rooted in the scientific epistemology. A science fantasy world has all of the predicates that we associate with science fiction worlds; an organized or "scientific" explanation can be formulated for whatever happens, even if that explanation draws on questionable analogies, imaginary science, or counterfactual postulates. Because of its unique narrative ontology, science fantasy calls into question or interrogates a number of "scientific givens": the epistemology of science itself, accepted scientific theories, accepted scientific facts, given historical facts, and "natural" actantial possibilities. In engaging the laws and principles that science and science fiction take for granted, science fantasy tends to ask basic philosophical questions having to do with the nature of reality itself, and with the discourses in which we inscribe reality. It asks us what is real and then asks us how we can answer that question for sure.

The model above could, of course, be considerably elaborated upon, by adding to it the distinction between extrapolative and speculative novums, by discussing the readerly (re)construction of the absent paradigm, by specifying the forms of *vraisemblance* available to the reader, by articulating in more detail science fiction's discursive assumptions, and so on. I have tried to do this elsewhere.[4] What I have sketched out above is a relatively simple, value-free theoretical model which covers the field of possible science fiction worlds. Among other things, the model makes manifest a number of "deep-structural" affinities linking apparently disparate fictions. In the model, for example, stories featuring sentient computers, robots, aliens, nonhuman monsters, mutants, or clones are revealed to have as a common denominator a structure based on encounters between self and other. It follows that these stories can be read in a similar fashion, using a limited number of models of *vraisemblance* (e.g., Other-as-Enemy, Other-as-Object, Other-as-Other). The model also makes it possible to distinguish between closely related genres, such as fantasy and science fiction, and to explain the nature of hybridized genres, such as science fantasy. It may not enable us to "read" any particular science fiction text in detail, but it can circumscribe the field in which such a reading might take place. It gives us, I would argue, a purchase on the how and why and what of science fiction, and that is all we ask, what we should ask, of genre theory.

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4. See my *Worlds Apart: Narratology of Science Fiction* (Malmgren 1991).

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