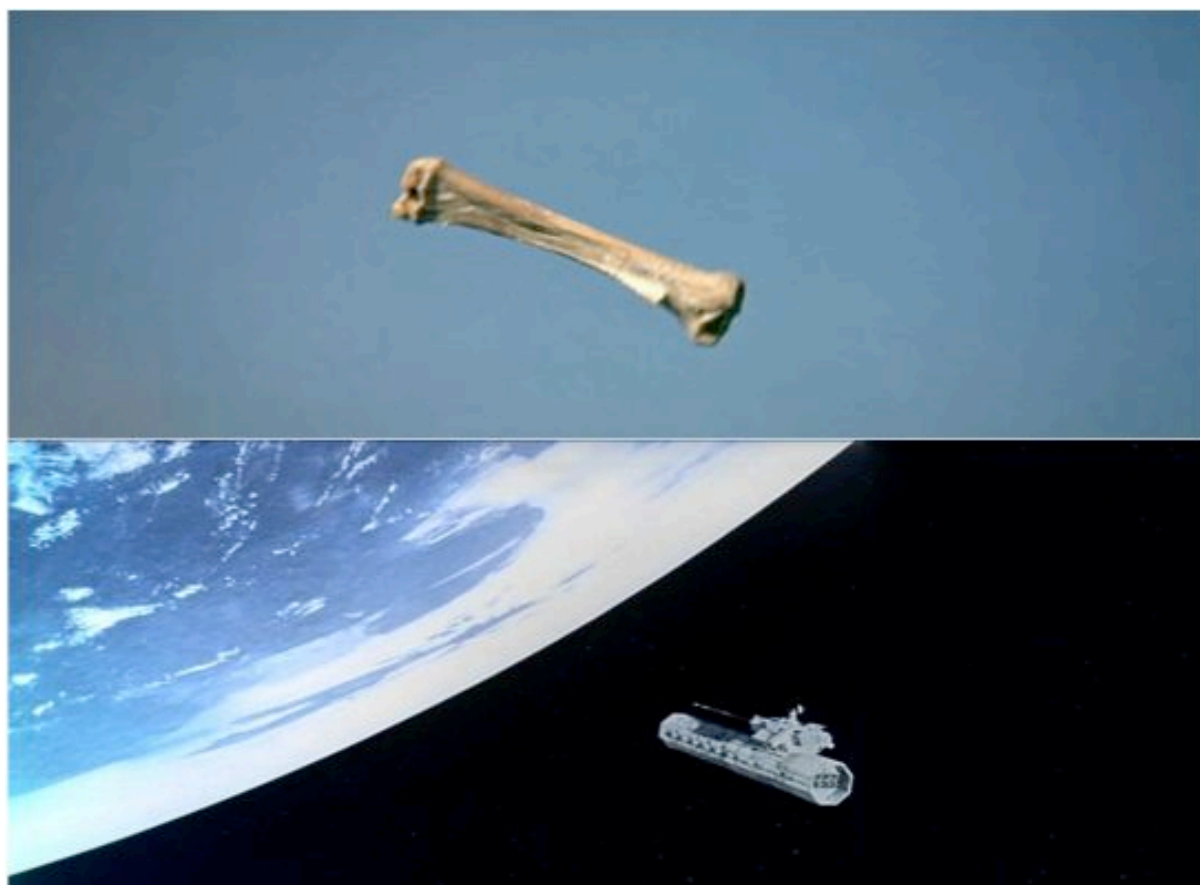




How I Define Science Fiction

Adam Roberts

On those occasions when people ask me to define science fiction, I generally say it's this:



It's probably the most famous jump-cut in cinema. You already know the context, so I don't need to spell it out in exhaustive detail: millions of years BCE a primate throws a bone into the sky. It flies upward. The camera pans with it, following it a little shakily into the blue sky. The bone reaches its apogee and, just as it starts to fall back down, Kubrick cuts to a shot of a spaceship in orbit, AD 2001.

Now, this seems to me an extremely beautiful and affecting thing, a moment both powerful and eloquent, even though I'm not sure I could lay out, in consecutive and rational prose, precisely why I find it so powerful or precisely what it loquates. It is, I suppose, saying something "about" technology, about the way humans use tools, about our habit of intrusively (indeed, violently) interacting with our environments, about the splendour but also the limitation of such tools, about the way even a spaceship is, at its core, a primitive sort of human prosthesis. But when you start explaining the cut in those terms you become conscious that you are losing something, missing some key aspect to what makes it work so well *in situ*. You are failing to grasp its imagistic potency.

The jump-cut works, in other words, not by a process of rational extrapolation, but rather *metaphorically*. I mean something particular when I say this, and I explain what I mean in detail below. But for now, and to be clear: I'm suggesting that this moment actualises the vertical "leap" from the known to the unexpected that is the structure of metaphor, rather than the horizontal connection from element to logically extrapolated element that is the structure of metonymy. Kubrick's cut is more like a poetic image than a scientific proposition; and there you have it, in a nutshell, my definition of science fiction. This genre I love is more like a poetic image than it is a scientific proposition.

The danger, here, is that people will assume that I'm saying something about the *content* of the genre. I'm not. I'm making a statement about the *form*, about the genre's discursive structure. So, for instance, Darko Suvin's common-sense definition of SF as determined by one or more *novums*, things that exist in the SF text but not in the real world (and therefore not in texts mimetic of that real world) is too often, I think, treated only on the level of the *content* of the text.¹ If a given novel or film contains a time machine or a faster-than-light spaceship or radically new concept of gender, then it is science fiction. I'm here neither to bury nor to praise Suvin, but what interests me about novums is the way the novum itself is so often a kind of reified or externalised embodiment of the *formal* logic of the metaphor, rather than just an, as it were, brute marker of difference as such.

Now: I concede that most fans and critics of SF are not likely to be persuaded by what I say here – my definition is *eccentric* in the strict sense of that term. Most people, I think, would argue that a science fiction text *extrapolates* (more or less rigorously and quasi-scientifically) from knowns in our world into possibles in its imagined world. This is, on its face, a perfectly sensible thing to argue, and has the advantage of distinguishing "science fiction", where the extrapolation needs to stay within broader guidelines of possibility, from "fantasy", where magic, surrealism, and suchlike impossibilities may enter in to the equation. If you're writing about a colony on Mars, then you need to stick more or less within the bounds of what we know about Mars, and space travel, and humans-living-in-close-proximity, and so on. Small deviations from probability may be permissible, depending on what they

¹ See Suvin, *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre* (New Haven, Connecticut: Yale University Press, 1979).

are and how cleverly the writer handles them; but large deviations are liable to “bounce” the reader out of her reading experience. Coleridge's willing suspension of disbelief is harder to sustain (the argument goes) in a story where the protagonist is a captain in the Proxima-Centaurian Space Navy than one in which they work in a shoe-shop in Colchester, so writers need to tread carefully not to tip over their readers' delicately balanced sensibilities. I have to say: I don't think that's true, actually. But plenty of clever and knowledgeable people do, and of course I could be wrong.

This more conventional approach to SF tends to lead to prioritising things such as: consistency and scope of worldbuilding, plausibility, rationality, and the scientific accuracy of the way novums are extrapolated from present-day knowledge. But once we get in the habit of judging SF by these criteria, I suggest we are moving away from what makes SF so cool and wonderful in the first place. Put worldbuilding in the driving seat, as writer or reader, and Mike Harrison's clomping foot of nerdism comes stamping down on our human faces, forever.

Don't get me wrong: worldbuilding, the correlative of “extrapolation”, certainly has its place in SF. Not in my *definition* of SF, though, and that's what concerns this brief essay. It seems to me that worldbuilding is ancillary to the crucial thing that makes SF (and fantasy for that matter) vital, crucial, and wonderful. I'm enough of a Tolkien fanboy to enjoy reading the appendices to *The Lord of the Rings*, but I'm not enough of a fool to believe that the appendices to *The Lord of the Rings* are the point of that novel.

Put it this way: worldbuilding is part of the *system* of a science fiction text; but the point of SF is not its system. The point is that it transports us – that it takes us somewhere new, that it brings us into contact with something wonderful, that it blindsides us, makes us gasp, unnerves or re-nerves us, makes us think of the world in a different way. I might differentiate a mediocre novum from a great one by saying that the former is embedded in a carefully worked-through and consistent web of worldbuilding, where the latter achieves escape velocity. It desystemises us.

Now, if I say the point of SF is *transport* and your first thought is of a well-integrated network of trains and buses, it may be you're more persuaded by that view of SF as coherent, rationally extrapolated worldbuilding. But if I say the point of SF is transport and you think *rapture*, well, conceivably you're closer to seeing the genre the way I do. Sometimes this transport is the full on mindblowing “sense of wonder”, a phrase I tend to take as a modern-day version of the venerable aesthetic category of the sublime (to adapt Edmund Burke, we could say: mimetic fiction can be beautiful, but only SF can be sublime). Sometimes it is something smaller-scale, a *whoa!* or *cool!*, a tingling in the scalp or the gut when we encounter something wonderful, or radically new, or strangely beautiful, or beautifully dislocating: something closer to Wordsworth's “spots of time”, maybe. It needs to be at least flavoured with Strange (“weird”, old or new) to be properly SF. Great SF can never situate itself inside its readers' comfort zones, though commercially popular SF can and often does.

Fantasy has a related aesthetic uplift, which we might call “enchantment”, which can manifest in several ways, but which absolutely needs to be there, somewhere, in amongst your welter of maps and family trees and invented languages and costumery and battles and elves and soap-opera-y comings and goings, if your fantasy novel is going properly to come alive.

I cannot, of course, deny that there is an ideological element to my definition (there's an ideological element to every definition, whether we acknowledge it or not). It cannot be denied that the genre I love exists over a particular political fault line. There are many right-wing SF fans, who, speaking socially, prize proper authority, tradition, following the rules, and a congeries of what are essentially military values, and who prefer SF that embodies all that. Which is fine; there's plenty of that kind of SF out there. For myself I have little time for the whole "the rules of physics prove my ideology is correct!" crowd: the *there's-no-such-thing-as-a-free-lunch* crew, the "the pilot in *The Cold Equations* was *right* to throw that girl into space!" cadre. But that's just me: there are many dedicated SF fans who find truth in some or all of those slogans. I can only speak for myself when I say I see SF as more fundamentally about the encounter with otherness, about hospitality to the alien, to the new and the strange and therefore to the marginal and the oppressed. This means it needs to embrace conventional and unconventional things, to be as much about gay as straight, trans as cis, colour as whiteness, and so on. In all this I see SF as an art of disclosure, not enclosure. That's my ideological bias, and I'm content to own it.

I'll say two more things about my definition of SF as a fundamentally metaphorical literature. The first is to stress I'm *not* saying that (for example) SF's novums are symbols that can be decoded. I don't think so at all – that, as it were, the rocket ships are all symbolic penises, Hydra is a straightforward translation of Hitler's Nazi party and so on. This strikes me as a reductive and foolish way of reading texts. To repeat myself: it is not the *content* of any specific metaphor that defines SF for me; it is *the structure of the metaphor as such*. Mine is a formal, not a content-driven, definition. In order to explain what I mean by that, I'm going to bring in a little theory. Bear with me.

My argument depends upon Roman Jakobson's celebrated distinction between *metaphor* and *metonymy*. Metaphor is that trope that refers something to something it is not, invoking an implicit rather than explicit similarity between the word or phrase used and the thing described (a related but different trope is that of the simile, where words such as *like* or *as* are deployed): Achilles is a lion, all the world's a stage, chaos is a ladder and so on. Metonymy, on the other hand, is the rhetorical device by which a part of something is used to refer to the whole of something: a parish of a thousand souls, a hundred head of horse, calling the monarch "the crown" and so on.

On a simple level, we recognise these rhetorical devices, and they take their place amongst the scores of other rhetorical devices that constitute our discourse. Jakobson, though, makes much more of them than this: although speech-acts and stories and novels only occasionally *contain* metaphors or metonomies, language as communication (he argues) is *structured* on a larger scale by the interplay between metaphor and metonymy. This is what he argues:²

² I quote a summary from David Lodge's *The Modes of Modern Writing: Metaphor, Metonymy, and the Typology of Modern Literature* (1977; 2nd ed Bloomsbury 2015). Jakobson's ideas are spread through various of his (many) works, and are hard to represent by directly quoting him. The closest he comes to summary is probably his "Two Aspects of Language and Two Types of Aphasic Disturbance" in *Fundamentals of Language* (1956).

The message construction is based on two simultaneous operations (the terms *metonymy* and *metaphor* are not used as figures of speech but rather as pervasive forces organizing language):

Combination (horizontal) – constructing syntactic links; contexture.

Relation through contiguity, juxtaposition.

METONYMY: implying time, cause and effect, a chain of successive events

Selection (vertical) – choosing among equivalent options.

Relation on basis of similarity, substitution, equivalence or contrast; synonym/antonym.

METAPHOR: implying space, a-temporal connection, simultaneity.

In poetry the projection of the principle of equivalence from the axis of selection (metaphor) is used as the major means of constructing a sequence (combination; metonym). This projection is the *defining characteristic of poetry*, and it expresses itself in rhyme, meter, symmetries, repetitions, motifs.

The dominant mode in the poetic is therefore that of metaphor.

Whereas in Prose the metonym prevails, the chain of events, the plot, successive actions, a sequence of occurrences. (The opposition is not an absolute one, but rather a mark of a tendency).

Jakobson developed his thought when he was working with children on the autism spectrum. What he discovered was that these kids tended to understand metonymy, but tended not to understand metaphor. So, as it were, you could show them a headline that says *the White House today issued a statement on immigration*, and they would understand that “the White House” was a metonym for the US Government. They wouldn't assume the actual building was talking, but would, on the contrary, grasp the connection between the US Government and the White House, since the head of the US Government lives in the White House. In this case there's a logical connection, a conceptual copula, between A and B. But Jakobson discovered that if you said to them *Achilles is a lion*, they were liable to reply: *no he's not, he's a man*; and that more abstract metaphors simply baffled them: *the only emperor is the emperor of ice-cream*, *chaos is a ladder* and so on – not that Jakobson quoted Wallace Stevens or *Game of Thrones* to his patients, but you take my point.

I don't have hard data, and stand ready to be proved wrong by people who do, but I suspect that SF fandom contains a higher proportion of people on the autism spectrum than does society as a whole. To be clear: such a statement is not a judgement. I have several friends on the spectrum, and they're clever, sensitive, and wonderful people, precisely as worthwhile and valuable as people not on the spectrum. I make this observation to ask whether this might have something to do with why my way of defining SF is so marginal to how most of the fans and critics I know see the genre. Mine is an eccentric position, in the strict sense, and I know it: most fans who are happier with a metonymic model of the genre (extrapolation – which is to say, cause and effect, a chain of successive events – and worldbuilding: coherence, links, contexture). It may be they're right, of course. But that's not how I define science fiction.

The structure of metaphor as such is the knight's move, my favourite manoeuvre in chess. It leads you in a certain metonymic direction, and indeed

sometimes leads you quite a long way down that consecutive path, in order to leap suddenly, not arbitrarily, but poetically, expressively, marvellously, in its unexpected direction. It's the way the carefully worldbuilt society of Asimov's "Nightfall" falls apart under stellar sublimity, or the way the intricate anthropological detail of Le Guin's *Left Hand of Darkness* is leavened by actual supernatural foretelling – a.k.a. magic – as a correlative to love, which is that novel's wondrous theme, wondrously handled. It's the way the scrupulously rational computational logic of Clarke's "Nine Billion Names of God" steps, in its last sentence, into amazing impossibilities. It can be the beautifully unexpected *outgoing*, as when Ellie Arroway enters the alien world-construct at the end of *Contact*, or it can be the beautifully unexpected *homecoming*, as at the end of Kij Johnson's wondrous "26 Monkeys, Also the Abyss". It doesn't need to happen at the end of a text: it might occur at the beginning (as when Timur's scouts ride through a wholly deserted Europe in Stan Robinson's *Years of Rice and Salt*), or anywhere in the text, actually. It is more affective than rational, more lyric than narrative (though the narrative is usually needful to generate its lyrical affect, I think). It is the hurled bone that turns, unexpectedly, impossibly, yet somehow *rightly*, into a spaceship.

I'll finish on a personal note. I write, as well as write about, science fiction, and have been doing it for long enough to know that the kind of science fiction I write does not find favour with the majority of SF fans. How I define "science fiction" may well have something to do with this: although it's just as likely that my relative lack of genre success is (Ockham's razor and so on) because what I do just isn't very good. But this structure I'm describing here as formally constitutive of science fiction is also formally constitutive of the joke, and jokes are very, possibly unhealthily, important to me. The structure of a joke is a knight's move: it leads you along a particular narrative trajectory only to finish with a conjurer's flourish of the unexpected. The joke can't be capped with a merely random or left-field unexpectedness, or it won't be funny: but the flourish at the end (the, to deploy a term invented by a giant of genre, "prestige") must work. Here's a joke:

A man walks into a library, goes up to the counter and says brightly, "I'd like fish and chips, please!"

And the woman behind the counter replies, "But ... but this is a library."

The man's eyes go wide. "Oh, I'm sorry!" he says. He leans forward and whispers, "I'd like fish and chips, please."

Here's another: my 11-year-old son's favourite joke, as it happens.

There was once an inflatable boy. He lived in an inflatable house with his inflatable parents. He went to an inflatable school with all his inflatable friends. But one day he took a pin to school.

The headmaster summoned the boy to his office. Shaking his head sorrowfully he said, "You've let me down, you've let the school down, but most of all you've let *yourself* down."

There is, in a small way, worldbuilding in both of these jokes; but it is not the worldbuilding that makes the jokes delightful. Delight comes from the sudden transport elicited by their twist.

To be clear: I am not saying that SF needs to be full of jokes. Indeed, on the contrary, successful comedy-SF is very rare indeed (*The Hitchhiker's Guide* is really the only undisputed classic in this narrow field). I am not talking content, I am talking *form*; and the point of this form is that the unexpected twist releases a quantum of *joy*.

That's why jokes are great, and that, although its content is very different, is why SF is great.

So when I call SF a metaphorical mode of art I mean it in that Jakobsonian sense: as a structural or formal constitution rather than anything content-level. And, in the unlikely situation that such a thing should be of interest to you, it provides the key to my own creative and intellectual exercises. Structuralism, metonymic and procrustean, interests me less than various poststructuralist freaks and shakes; irony (though it's currently rather out of fashion) interests me more than earnestness, play more than preachiness, epiphanies more than consistencies. I think our genre needs more Keatsian negative capability and fewer grids, hierarchies, and certainties. SF is in the “prestige”, not in the setup and the performance, although both the setup and the performance are needful for the “prestige” to come off. SF should transport us, or what's the point of it? At any rate, that's how I define “science fiction”.

Biography: Adam Roberts is Professor of Nineteenth-Century Literature and Culture at Royal Holloway, University of London. He is the author of twenty-two novels, all science-fiction or fantasy, as well as various academic examinations of the mode, not least if probably not most *The Palgrave History of Science Fiction* (2nd ed rev., Palgrave 2016). His literary biography of H. G. Wells is forthcoming.