

But Some are Useful

By Tricia Sullivan

'All models are wrong but some are useful.'
– George Box, British statistician, 1976

Futurism and science fiction are often conflated as methods of modelling 'the future'. Certainly, both may be judged on whether their projected futures turn out to be less or more egregiously wrong when 'the future' becomes the present. Certainly, science fiction uses modelling. But unlike futurism, science fiction isn't about predicting a 'real' future, even if sometimes it comes true in atomized ways.

However, science fiction *is* specifically aware of the radical shifts from impossible to possible that characterise technological progress, without (necessarily) understanding the science well. This willingness to engage with the impossible means that narrative boundaries in science fiction are more elastic than in the narrow realism imposed by

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the 20th century Anglo-American cultures in which much of its canon is embedded—but only because conceptually 'the future' is connectable to the here-and-now without resorting to magical wardrobes. Science fiction is a form of fairy tale made acceptable to the techno-saturated thought habits of our time.

In some ways, science fiction is smaller than futurism. When we set a story in an imaginary future, we are still working with the same primal material introjected by the cultures we reside in, often uncritically. As Forrest Gump says, 'wherever you go, there you are.' Science fiction can play out familiar old psychodramas, so that creators risk slipping into the same groove over and over—especially given a self-perpetuating white straight Western authorship of canon in books and onscreen. As a conventional form, SF often relies on the scaffolding of previous examples that allow it to work in shorthand rather than explaining everything. This can lead to laziness and stultification. For example, we can have a godlike AI in a science fiction possibility-

space without having to explain how it got there, but we mustn't have talking horses unless we can explain them as convincingly as what we've already assumed about the AI based on past fictional exposure (even though talking horses are arguably more technologically plausible than self-aware AI).

Another kind of straitening happens in the so-called 'hard' branch of SF, which is running scared from the unknowable by constructing imagined futures in the same way we might conduct a mathematical proof. In hewing to rationalist principles, maybe 20th-century hard science fiction satisfied a need for certainty and solidity in the face of the barely conceivable uncertainties and fragilities exposed by human development of the time. But when we think of our world in this narrow and fully knowable way, we miss the best part of science fiction.

The best part of science fiction is its emphasis on imaginative games, and this is where it can do moves that futurism can't, because story is a form of play. All stories stretch us and exercise our minds, but calling on 'the future' in our stories allows us to radically bypass habitual thinking and engage with the novel, the unexpected, and (especially) the impossible. This has led to science fiction being labelled as escapism.

But it is by escaping that we as readers (and writers) can achieve cognitive distance from where we actually are.

Science fiction is mentally gymnastic. It requires us to put aside our hard-won knowledge about the 'real' world and accept the ridiculous and the horrifying and the implausible as input parameters while we build a new model of things in our own imagination. We are no longer writers and readers standing side-by-side looking at a common reality, but rather we are readers and writers co-constructing a new world together. We are all working extremely hard just to stay in the narrative. We must build internal possibility-spaces out of previously-unseen conceptual geometries, and we must do this from scratch. The world-models that come out of this process do not have to be explicitly connected to the future or even the present to be useful. They are useful because they have changed the dynamics of our thinking.

New ideas do not come from nowhere and aren't built from nothing. They come from recombination and connection between existing structures. The richer and more diverse our internal structures are, the more connections and leaps we are able to make, individually and collectively. Science fiction with its imaginative demands

forces us to knock down internal walls and build staircases and windows where there was formlessness before. It forces us to re-examine the default options in our thinking and often to replace the default with a more nuanced view. This, quite literally, is how we grow.

The need to dilate the familiar goes beyond the technological and extends to reaching outside the reality of any dominant cultural narrative. New-to-the-reader conceptual spaces are the name of the game in science fiction. But the 'new' doesn't have to be technological. It doesn't matter whether the 'new' is the recovery of indigenous or marginalized stories and viewpoints to stand alongside dominant-culture views, or whether it's a shift across the gender spectrum or disability spectrum, or whether it's imagining a way of living that nurtures someone who is suffering under our current conditions. All of these kinds of 'new' are valuable and can change us. When I was young, reading James Baldwin's *Another Country* and Philip K. Dick's *The Three Stigmata of Palmer Eldritch* were similar experiences. Both authors dragged me so far away from the familiar that I had no choice but to reconfigure the parameters of my reality. I do not believe that either writer was playing conceptual games for the fun of it. Both were engaged in an effort to open new spaces out of genuine need.

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The need for new spaces is mounting. We are living in a world of human design where the nature of nature lies open to both comprehension and exploitation. Old, entrenched systems of power are in control of unprecedented resources. They drive us toward ecological cliff-edges in broad daylight, and we are unable to stop them. How will any of us escape destruction? How will we survive? The emergence of new or recovered-from-lost paradigms is vital, and for that, science fiction is a creative engine whether or not it ever predicts anything, because it is a part of creating us. And we are creating the future.

About the Author

[Tricia Sullivan](#) is a transplanted New Jerseyian living in the UK. She is an Arthur C. Clarke Award winning author of nine science fiction novels including *Dreaming in Smoke*, *Maul*, and *Occupy Me*. A former English teacher turned physicist thanks to the Open University, she is currently a postgraduate research student at the Astrophysics Research Institute in Liverpool. She lives in Shropshire with her family and their rescue cats.