

Less physics, more mystery

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My wife and I have fully caught up watching two TV dramas that involve travel between alternative realities. In *The Man in the High Castle* (Amazon Studios), Nazi Germany and Imperial Japan occupy, respectively, the eastern and western parts of North America, having prevailed in World War II two decades previously (the show is set in 1962). The other reality, which barely appears on screen, is our own. In *Counterpart* (Starz), the two realities consist of our own and a clone of it that sprang into existence by accident in 1987. The plot unfolds in present-day Berlin (or Berlins, I should say).

How the two shows explain and exploit interdimensional travel differs. For the first two seasons of *The Man in the High Castle*, the travel is evidently an important background element, but most characters are unaware of it. The first hint of another reality comes in the first episode, when one of the main characters, an American named Juliana Crane, comes across what seems like a newsreel that depicts victorious Allied soldiers in Berlin. No actual interdimensional travel is seen on screen until the first season's final episode, when another main character, Japanese trade minister Nobusuke Tagomi, dozes off on a bench in San Francisco's Union Square. When he wakes, he finds himself in a US-run San Francisco devoid of Japanese occupiers. A few instances of interdimensional travel occur in the second season, but it remains in the background.

Things change in the third and latest season, when it emerges that the German Reich has a top-secret research facility in a coal mine in Lackawanna County, Pennsylvania. There, a massive quantum machine, which resembles the ATLAS and CMS detectors at the Large Hadron Collider, has been built to create the physical conditions for interdimensional travel.

Quantum physics is not required for interdimensional travel in *Counterpart*, whose second and final season ended this past February. To cross between the two realities, the few people who know about the worlds—mostly spies and diplomats—simply walk across a heavily guarded passageway that serves as the only border and portal. The drama arises from the fact that the worlds have diverged in the 22 years since the cloning. One world suffered a devastating flu epidemic; the other didn't. That difference, along with the random fluctuations of everyday life, caused people in one world to diverge from their counterparts in the other. On the rare occasions when two counterparts meet, they discover they look similar,

but they feel and think differently, despite their identical DNA and their identical, precloning pasts.

Physics, we learn in the flashback episode 6 of the second season, is responsible for forming the cloned world. A synchrotron light source in Berlin malfunctioned and triggered a brief episode of earthquake-like shaking. Perhaps inspired by Hugh Everett's many-worlds interpretation of quantum mechanics, the accident cloned the world.

It's not surprising that the showrunners and screenwriters of both *The Man in the High Castle* and *Counterpart* invoke physics. Physicists study time and space. Teleportation of

quantum properties and spooky action at a distance are real. Physics—albeit fanciful and false—bestows authority on science fiction. The Q Continuum of *Star Trek: The Next Generation*, for example, is not explained. But it is described in the language of physics as an “extradimensional plane of existence.”

Watching *The Man in the High Castle* made me wonder whether physics needed to be invoked at all. Until the appearance

of the huge quantum machine in season 3, I was prepared to accept the existence of two realities without explanation. The same question of necessity crossed my mind when I watched *Counterpart*. Until that flashback episode, the show was free of physics.

On balance, science fiction should be sparing and judicious when it comes to buttressing plot elements with quasi science. For one thing, explanations, like lies, become less convincing the more elaborate they are. The reader's or viewer's willing disbelief risks being unsuspended, especially if he or she is a scientist. For another, science dispels mystery and imagination. The Force in *Star Wars* lost some of its power to enthrall when, in the first of the regrettable prequels, *The Phantom Menace*, it was ascribed to microscopic, symbiotic bugs. PT



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