

Future Shock Levels

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Summary:

A Shock Level measures the high-tech concepts you can contemplate without being impressed, frightened, blindly enthusiastic - without exhibiting future shock. Shock Level Zero or SL0, for example, is modern technology and the modern-day world, SL1 is virtual reality or an ecommerce-based economy, SL2 is interstellar travel, medical immortality or genetic engineering, SL3 is nanotech or human-equivalent AI, and SL4 is the Singularity.

The classification is useful because it helps measure what your audience is ready for; for example, going two Shock Levels higher will cause people to be shocked, but being seriously frightened takes three Shock Levels. Obviously this is just a loose rule of thumb! Also, I find that I often want to refer to groups by shock level; for example, "This argument works best between SL1 and SL2". (This does *not* mean that people with different Shock Levels are necessarily divided into opposing social factions. It's not an "Us and Them" thing.)

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- SL0: The legendary average person is comfortable with modern technology - not so much the frontiers of modern technology, but the technology used in everyday life. Most people, TV anchors, journalists, politicians.
 - SL1: Virtual reality, living to be a hundred, "The Road Ahead", "To Renew America", "Future Shock", the frontiers of modern technology as seen by [Wired](#) magazine. Scientists, novelty-seekers, early-adopters, programmers, technophiles.
 - SL2: Medical immortality, interplanetary exploration, major genetic engineering, and new ("alien") cultures. The average SF fan.
 - SL3: Nanotechnology, human-equivalent AI, minor intelligence enhancement, uploading, total body revision, intergalactic exploration. [Extropians](#) and [transhumanists](#).
 - SL4: The [Singularity](#), [Jupiter Brains](#), Powers, complete mental revision, ultraintelligence, posthumanity, Alpha-Point computing, [Apotheosis](#), the total evaporation of "life as we know it." Singularitarians and not much else.

If there's a Shock Level Five, I'm not sure I want to know about it!

The use of this measure is that it's hard to introduce anyone to an idea more than one Shock Level above - and Shock Levels measure what you accept calmly, not what you know about. There are very few SL4s, and I was *not* one of them (too enthusiastic) when I wrote "Staring Into the Singularity" 1.0. If somebody is still worried about virtual reality (low end of SL1), you can safely try explaining medical immortality (low-end SL2), but not nanotechnology (SL3) or uploading (high SL3). They might believe you, but they will be frightened - shocked.

That's not to say you can't do it. In fact, you can take advantage of the future shock to carry the idea. You just have to be careful.

By a similar token, a Singularitarian can shock a science-fiction fan, but not an Extropian - the Extropian will be interested, perhaps enthusiastic, but not shocked. (Of course, if the person was *already* enthusiastic about transhumanism, they might be *wildly* enthusiastic about the Singularity.) An Extropian can shock your average Wired reader, but should be careful about trying this with the "person on the street" - they may be frightened. And so on. In general, one shock level gets you enthusiasm, two gets

you a strong reaction - wild enthusiasm or disbelief, three gets you frightened - not necessarily hostile, but frightened, and four can get you burned at the stake.

Of course, sometimes you can't stick to the gradualism rules. If somebody asks you a question where the actual answer is SL4, and there's no interesting SL3 version, then it's time to put up or shut up. If I get lynched, I was wrong about this.

Acclimatization:

Your Shock Level is generally one level below the highest Shock Level you've heard of. In fact, one of the most effective ways to "graduate" someone from, say, SL1 to SL2 is to make them familiar with SL3 technology. In other words, knowing about the possibility of nanotechnology will tend to make you considerably more comfortable, more prosaic, about the possibility of medical immortality. Likewise, simple intelligence enhancement is only impressive if you haven't heard of the Singularity. I offer this as an excuse for taking three years to go from SL3 to SL4... there's no SL5, and the only way to be prosaic about the Singularity was by living with it for years. I've never seen anyone top it; that's the problem.

The interesting thing about Shock Levels is that what takes the time isn't *believing* in a Shock Level's technology, it's feeling *comfortable* with it. When I first ran across the idea of the Singularity I knew immediately that Vernor Vinge was perfectly right; I felt my entire ethical system restructuring over the course of about five seconds - a very peculiar feeling, let me tell you. Five seconds to believe. Three years to acceptance. The only way to speed up the process of acclimatization to one Shock Level is to trump it with a higher Shock Level.

The Fixed-Point Theorem:

Shock Levels are interesting because they seem to define a fixed-point theorem for novelty-seekers. Some people enjoy, more strongly than average, learning new things and seeking out new ideas and playing with advanced technologies; they become technophiles, programmers, and so on. Then there are people who were raised as technophiles, and also have that novelty-seeking quirk; *they* become science-fiction fans. People raised as science-fiction fans become Extropians; I'm not aware of any children raised as Extropians, but my personal experience demonstrates that children who find out about transhumanism in childhood can become Singularitarians as adults. As yet, I don't know of any data on what happens to novelty-seeking children raised as Singularitarians. Frankly, I'm a little afraid to find out.

On the other hand, there are probably also people who jump three or four shock levels in their lifespan. The idea above is a hypothesis for how Shock Levels arise in a culture.