

Motley #13

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I'm going to devote this and the next issue of Motley to an interesting discussion of economics and science fiction. This time there's an essay by Greg and next time a response by Stephen Postrel, former editor of *Reason* magazine and professor of economics.

Economics and Science Fiction

Gregory Benford

Scientific and technical assumptions that violate normal science, such as faster than light travel, can sometimes make for very good stories. The same is true of economics, because economics after all is a science in a way – it's quantitative, empirical; there is a Nobel Prize for it. And so normal economics made me think about the assumptions behind many of the future worlds sf builds.

Physics isn't exactly thrilling to read if you're not a physicist, so we writers manage to work that stuff into drama. The dry nature of much economic writing shouldn't be a big barrier, though one must understand it first. Friends like Vernor Vinge and Charlie Stross write about economics through the social lens they choose and they are all very aware of these things. Vernor and I are libertarian and he treats those ideas well, whereas I avoid politics in most of my work; it seems a poor investment in the long run, when it will often go out of date. Economics, maybe less so.

Sf writers are often thinking about economics as a frame for a person-centered plot, and libertarians are very often self-propelled folk, so they fit the narrative thrust. One notable example is Poul Anderson's Nicholas van Rijn stories and novels. These stories are clearly informed by Poul's libertarian economic views and the market-centric economists. The driving force behind each of the stories is that of the free trader and all that implies, demonstrated in active detail, not lectures. (A notable shortcoming of much economics-centered sf is the expository lump.)

Thomas Carlisle called economics the dismal science because it was inherently about scarcity. I recalled this because my senior Dallas public high school thesis was on his *Sartor Resartus* (1836). I found it to be a confusing, arch satire, not a set of ideas. Carlisle seemed vexed about poverty, as though it was a disease. Yet scarcity is inherent in dynamic systems. Markets move to minimize it. To minimize it means you must first understand it: economics, then action. But can avoiding poverty be the central goal of society? Science fiction should use such notions to envision futures, yet it seldom does.

Let me reprise my meandering education in such matters. One of the first sf writers I met was Mack Reynolds, whose stories such as "Compound Interest" (1956) and "The Business As Usual" (1952) interested me in futurist economics. Visiting him in 1965 Mexico, Reynolds said to me, "The dominant economic system in the future might not be capitalism, or socialism either. My main complaint about American science fiction was that so few writers develop new economic systems to fit the future worlds they have

created. Face reality, man! Long live the Class Struggle!” He advocated the Minimum Basic Allowance; first time I’d heard the idea.

So I soon saw that the genre is inherently interested in economics, but often unconsciously. (It’s impolite to talk about money, you know.) Yet most people in the literary world are fearful of economics or want to just forget about a solid fact: that there are scarcities and tradeoffs happening whether you wanted to see it or not.

What’s also striking about many space operas and future societies is that one seldom sees any economics. You can hardly ever figure out how anybody makes money. The extreme form is Iain Banks’ anarchist future in which, essentially, it costs nothing to manufacture anything, and everybody is rich.

I link such thinking to the old *Star Trek* future without money. You have to ask yourself, “How did they carry out transactions? Or plan real costs?”

Economic Futures

I’ve known Kim Stanley Robinson ever since he was a graduate student working for Fredric Jameson at the University of California, San Diego, so I looked particularly at Stan’s and Iain Banks’ ideas because they reflect a left-wing view of future economics beyond what we know. From the left wing much social pressure comes, despite the fact that various economic disasters over the last century have largely come from left-wing economics: the Soviet Union, Venezuela, North Korea, Cuba, etc.

What is to be learned from studying the future depictions of ideas already subjected to so much, shall we say, experiment? I’ve closely followed Stan’s works and notes his narrative tics he keeps returning to, which tend to wed together in a social picture.

In many of Robinson’s futuristic novels you find a long walk-about, showing off the scenery that really doesn’t do much for the story. He uses in places a somewhat John Dos Passos style novel of apparatus. (In *Aurora* [2015] there’s a computer narrator. In *2312* [2012], AIs run the whole planetary solar system. In *New York 2140* [2017] there’s an argument about the evil banks because currency itself is a trap.) There is in many Robinson novels at least one even-handed economic debate in which the liberal voices tend to win. (I agree with the British critic Roz Kaveney that “if there is a weakness in Robinson’s work, it is perhaps this; his characters are so intelligent that they never shut up.”¹ Alas a truth about many of us...)

In Stan’s Mars trilogy there is talk of alternatives to capitalism, such as the gift economy and eco-economics accounting. In that background, Earthside our current transnational corporations become first partners of states, then overlords of states, and finally transcend states entirely into something like meta-national rivalries. But! – no World State, as such luminaries as Albert Einstein and Bertrand Russell said was essential. He shows neo-Marxist and neo-anarchist ideas but not much of the emotional side of politics and economics. His people seem afraid of markets because markets favor certain abilities, giving some advantages over others. Alas, life isn’t fair, but maybe government can remedy that. This tends toward some bureau or collective allocating income, not supply and demand. In this future, no Apple or Google, I expect.

In a speech last year, Stan begins by saying the only way to solve our environmental problem is to end capitalism – the personal use of assets for personal gain.

He never says what comes after capitalism (nor does his audience ask, tellingly; they just cheer). But you can tell from his novels and views of economics that he believes that small worker collectives organized together can create a better economy that's more equitable. This, in the face of a simple fact: capitalism and globalization have done more to improve living standards than any other economic arrangement. But is democracy a necessary ingredient? Not in China, so far. State capitalism works, too ... until it doesn't (see: USSR).

This is a struggle suffusing much social sf: Ursula K. Le Guin's *Always Coming Home* (1985), Cory Doctorow's *The Walkaway* (2017), Michael Moorcock's *The Steel Tsar* (1981), Ken MacLeod's Fall Revolution series, Eric Frank Russell's "... And Then There Were None" (1951), Robert A. Heinlein's *The Moon Is a Harsh Mistress* (1966), L. Neil Smith's *The Probability Broach* (1980), J. Neil Schulman's *Alongside Night* (1979), Victor Koman's *Kings of the High Frontier* (1996), Mack Reynolds's many stories.

Some love the British writers into alternative economics, like Ian R. MacLeod and Ian McDonald in his Luna series. Americans checking in are represented by Andy Weir's *Artemis* (2017) with its corporate colony, John Varley's *Steel Beach* (1992), John Kessel's *The Moon and the Other* (2017). There is much clashing in the economics of rapacious managers and imperialism as Heinlein saw it in *The Moon Is a Harsh Mistress*. Notably, Le Guin's *The Dispossessed* (1974) saw anarchism as leading to virtuous poverty ruled by social pressure and guilt. Indeed, Marxist socialist countries have often turned out to be poverty-stricken prisons, in reality. She said to me once she thought that virtuous societies may have to be poor ones. I said, but poverty is not a virtue. It's destabilizing without social pressure, which indeed *The Dispossessed* implies.

The phrase from Alan Greenspan, irrational exuberance, means economists must talk about emotion. But they mostly talk about equations, while the market is both – useful for writers! Can we have a mathematically decodable view of a chimpanzee-mind-driven market? The nano-plenty, robotic future is a post-scarcity world, but there's always something that's scarce. Space tourism, unique experiences, prime real estate, for example.

I think narrow economic models run afoul of experience. Asked to write a sequel to Asimov's *Foundation* trilogy I saw he had said that psychohistory was like the perfect gas law as a model. I had already pointed out to Isaac that in the gas law there is no memory in the system. That's why it works. So it couldn't be predictive! So politics and economics can't be predicted. He had not thought of that. Something like that is true of Charles Stross. He puts in fantasy elements I suspect to add confusion to computation. It's complexifying the market with fantasy elements so that it takes longer to do the computation. That's good for plot, bad for economics – so it would be weeded out in a real, non-fantasy world, if possible.

Some sf writers have invoked state capitalism, not collectivism, because it seems at times to work. China's mixed system of state-directed capitalism has produced stunning results: in just one generation, China has moved 300 million people out of poverty.

If proponents of liberal democracy don't figure out how to fix what's broken, systems like China's could become more prevalent, with severe implications for

individual liberties. Still, democratic capitalism generated a 30-fold rise in earnings throughout the 20th century, an unchallenged record. Can collectivism do as well?

Historically, there are certain cases where you can get an anarchistic experiment to work for a short while, but it's very fragile if you tweak it a little bit, or challenge it. Anarchist societies during the Spanish civil war fell apart. Wherever anarchists have tried to revolutionize the land they were living on (e.g. Ukraine, Bavaria, Spain), they disarmed the ruling classes by an armed uprising of the populace. Their idea was that anarchy is power spread thin, neither a legitimate concentration in a sovereign power nor scattered to war lords or tribes.

Even the current structures in Spain, like the Mondragon Corporation experiment in a town of that name, have survived but with some management problems. They tried to have as little hierarchy as possible and founding ideas like agreed-upon wage ratios between executive work and field or factory work. They feature too the empowerment of ordinary laborers in decision-making, and a measure of equality for female workers. They started having trouble making decisions around the 100,000 member level. Those who came in early, the founders, didn't want to share the increasing profit margin with the latest who just walked in the door. How to solve this? Create a Founders Group? How is that not like the shareholders who came in with money and help at the early, lower stock value – as happens in companies. (I've seen this happen in companies I founded.) So maybe such collectives will evolve into modified companies? In Robinson's *2312*, Mondragon Corporation has evolved into a planned economy system called the Mondragon Accord, attempting to graft the present into future socioeconomics.

The fact that cooperatives have often failed historically doesn't figure much in Stan's work. There's a sidewise acknowledgement of this in *Aurora*. Aboard a starship with no captain or ship officers, everything is done by consensus in classic collectivist mode. But they slowly starve. When things go awry, they differ over goals. Half of the crew murders the other half. Nobody knows how to stop this (no Captain, no discipline method). There is no reflection by them on why this arose or how to fix it, much less the smart AIs controlling the craft.

AIs also run economics in Robinson's future history novels. Essentially, AIs = gods, because they sweep aside all the messy human aspects of economics. This assumption is opposite to Lenin's ignorant early theories, inherited from Marx ("Any cook should be able to run the country"²). But mostly, it eliminates human agency, so economics is in the end handled by artificial intelligences, AI.

Robinson has this in common with Banks, who also has sentient artificial intelligence running a galactic economy in the presumptively titled *Culture*. This seems to appear often in future sf to make it seem plausible that the human science of economics could be objective and not subject to great emotional surges. Nobody questions what the AIs think about taxes or distribution. Nobody wonders how you know the AIs aren't running the world to benefit ... AIs? Stuff just appears because the AIs apparently know what will be needed before humans even know themselves. So you get these implausible AI futures that have plentitude, with all the economic magic done off stage.

In *2312* the Mondragon Accord is crucially controlled by means of a network of AIs running on quantum computers, as though this solves the knotty human aspects of economics. In Iain Banks, this means you end up fighting over the age old things which

echo medieval plots – kings and queens, tribes and passions rule. But struggles are not about economics because everybody has everything they want. This reflects ignorance of real economics because there's always some scarcity – Beatles tickets, high fashion, good ocean views, fame, etc.

Maybe that's why there's so much love of AI future economies—you build an AI with no motives or biases, to be *fair*. Can't trust those pesky humans! I said to my old friend Marvin Minsky long ago, can you build an AI that's really intelligent without its own motives *and* can you build one without an unconscious? A big issue, because much of our emotion funnels through the unconscious, which we cannot inspect rationally at all. He said, "I don't know the answer about either of those." And nobody does now, decades later. So...AIs should run economics? This is an empty dodge.

Such futures are akin to soft dreaming, ignorant of biology. We are really plain old smart chimpanzees. We have a lot of historically inherited, genetic loading for the Chimpanzee Paradigm. The common chimp has a power pyramidal system with an Alpha male at the top. The bonobo chimps mediate disputes with intense sex, while they dine in the deepest forests. We're the evolved chimps who solely got out of Africa.

In Robinson's near future New York City, there are no racial or ethnic partisanship groups endlessly feuding; it just doesn't happen, unlike today – a miracle by author's fiat. The tribal tensions that dominate New York City today, like the near-collapse of systems such as the subway, don't happen in his future ecosphere. Finance capital gets blamed instead. If you get rid of the banks, everything would be fine – which opens the old problem of how to make new ideas work, since there's apparently no organized borrowing – no market in money, which after all is just a fluid commodity.

Many sf writers don't like extreme wealth. Some ask, who is the man behind the curtain that you should ignore? Must be a conspiracy of some kind

And that man is the fear of economics being ruled by passions, as it always has been in alliance with such mechanisms. John Stuart Mill believed that worker-run and owned cooperatives would eventually displace traditional capital-managed firms in the competitive market economy, due to their superior efficiency and stronger incentive structure. This proved wrong. Why?

Both Mill and Karl Marx thought that democratic worker management could be more efficient in the long run compared with hierarchical management. At times, though, Marx was not hopeful about the prospects of labor-managed and owned firms as a means to displace traditional capitalist firms in the market economy, even though they would counter his idea of worker alienation. Marx maybe saw that the trouble is: eventually divisive groups arise and paralyze efficiency (it's not clear if he thought this through).

So, why do people keep writing such utopias or even dystopias? Because our desires to run our lives have limits, which maybe society can correct. Labor-managed firms strive to maximize net income for all its members, while traditional capitalist firms maximize profit for owners. Labor-managed firms create an incentive to limit employment to boost the net income of the firm's existing members. An economy of labor-managed firms tends to under-utilize labor so have high rates of unemployment. That's a contending inefficiency that markets have historically weeded out. Indeed, the Bolsheviks and Marx thought a full transformation of the work process could only occur after technical progress has eliminated dreary and repetitive work – which hasn't

happened yet, even in the advanced Western economies. (Grading freshman essays, for example.)

This goes way back to Edward Bellamy and economist Pierre-Joseph Proudhon (“mutualism” in contrast to the “parasitism” of capitalist society) and others in the 19th century, who thought scaling up small units like farms would yield better results if run by the workers. Thinking about the future is almost always governed by the things you want, rather than the things you know.

That’s my not short introduction. Now a real economist will speak.

Notes

1. Roz Kaveney, “After the Black Death, 700 Years of New Life,” review of *The Years of Rice and Salt* by Kim Stanley Robinson, *The Independent*, March 5, 2002, 5, available at <https://www.independent.co.uk/arts-entertainment/books/reviews/the-years-of-rice-and-salt-by-kim-stanley-robinson-9240192.html> .

2. Vladimir Lenin, cited in Kelly O’Connell, “Vladimir Lenin: Russia’s Original Cold-Blooded Communist Revolutionary,” Canada Free Press, posted January 31, 2010, at <https://canadafreepress.com/article/vladimir-lenin-russias-original-cold-blooded-communist-revolutionary> .

Next issue:

**An Underutilized Resource – Economics in Science Fiction:
A Response to Gregory Benford
Stephen Postrel**