

## ACKNOWLEDGEMENTS

This document was written by:  
**Angelus Morningstar**  
BA (Hons), MJur, MPP, JP

This research paper is free for distribution, provided that the content is not altered and the original authors are attributed.

# PROMETHEAN FUTURES

## A COMPARISON OF MARX AND FUKUYAMA PREDICTIONS

In this essay I question whether the philosophies of Prometheism necessarily reach a conclusion of Market Fundamentalism (MF).<sup>1</sup> I argue that despite the predicates of Prometheism being frequently considered equivalent to the predicates of MF, those similarities are nothing more than false equivocation that presumes a self-evident interconnection.

In my response, I highlight that the teleology implied in Prometheism is effectively Technological Determinism, rather than Growth or non-Growth economic systems. In doing so, I refute that a deterministic position on technology is a predicate to Prometheism at all, because it is readily co-opted by economic paradigms. I reach the conclusion that presuming Technological Determinism demands a teleos, which is a fundamentally flawed view of technology and its relationship to the environment. In its place I propose that Prometheism as an environmental philosophy is best understood as being aligned with a Social Construction of Technology, which is agnostic to economic paradigms.

## ECONOMIC PARADIGMS: MARKETS AND MARXISTS

In this section, I unpack the ideology of MF and ES. I will outline their underlying ideology of Growth or anti-Growth economics respectively. It should be noted that due to the brevity of this this essay, I do not explore the entirety of their respective discourses. Rather, I extract the elements of these philosophies that speak to their underlying teleology.

### MARKET FUNDAMENTALISM

Market Fundamentalism is an ideology first popularised by Soros (1998) in *The Crisis of Global Capitalism*. In this work, he revises a more contemporary ideal of 19<sup>th</sup> Century *laissez-faire* markets, founded on a strong belief in free market economies and policies as being able to solve socio-economic problems. This position has been argued for on the presumption that deregulated markets maximise individual freedom and provide the best means to achieve Growth (Geraskov, 1997; Hargreaves, 2003, p. 20), and consequently advocates for as much deregulation of the market as possible. Beyond this primary tenet, MF has otherwise been characterised by its critics for holding a dogmatic disposition to

<sup>1</sup> Throughout this essay I tend to capitalise the names of various ideologies regardless of whether they are normally capitalised, as a method of helping the reader determine when a word is containing an ideological framework beyond its common sense use; should there be one.

its doctrine, to the point of dismissing all criticism (Block, 2009; Quiggin, 1999).

The main advocates for MF are Neoliberal (and other conservative) politicians, who regard economic equilibrium as an inevitable phenomenon, which makes resistance to market forces futile. From these positions, I derive the outline of MF's *teleos*, which is effectively describing a Neoliberal ontology. The most significant manifestations of this ontology can be found in both the Washington Consensus (See Williamson, 2000; Williamson, 2003) and *The End of History and the Last Man* by Fukuyama (1992). That this expresses an ontological position is best put by Kozul-Wright and Rayment (2007), who contend that the advocates of MF vest their confidence in its doctrine on a "mixture of implicit and hidden assumptions, myths about the history of their own countries' economic development, and special interests camouflaged in their rhetoric of general good" (p. 14). As Kitching (2001) has observed, these perspectives entail an ontology of the world that presupposes both global markets and the removal of economic barriers as *ipso facto* beneficial, which has led to a "self-fulfilling prophecy" (p. 7), which predicates the actions and decisions of policy makers accordingly.

Given this broad ontological position, Fukuyama's thesis proves exemplar for being the most explicitly teleological, and for deliberately counter-claiming Marxist teleology. Specifically, Fukuyama predicted an 'end of history', declaring the inception of liberal democracy hegemony that could not be succeeded, as well as the contention that Capitalism had triumphed over communism (O'Brien & Williams, 2004, p. 116). While it would be erroneous to claim that Fukuyama contends that market forces are necessary for a liberal democracy hegemony, his use of a capitalist *teleos* makes them an implicit corollary. From this, the Neoliberal ontology derives an economic imperative of deregulated global market forces, to produce that same hegemony. Rather, a clearer reading of his preliminary article reveals a prediction vested on humanity's technological capacity as leading towards this *teleos* (Fukuyama, 1989). This is a clear example of conflating an economic *teleos* with a technological one.

## ECO-SOCIALISM

Eco-socialism describes a range of ideological positions, which commonly advocate for the dismantling of Capitalism and private property in favour of steady-state economics and common ownership. Though ES draws upon a rich history of Marxist and socialist philosophy, its contemporaneous expression is expressed in the founding document: *The Ecosocialist Manifesto* by Kovel and Löwy (2001). The manifesto proposes a strategy that is both radical and revolutionary, in the sense that it calls for the dismantling of the existing economic regime, and which is sometimes read to include a dismantling of statism.

Because ES is an ideology that is part of Social Ecology, it necessarily critiques current socio-political trends, particularly those it deems anti-ecological. Specifically, the tenets of ES are anti-Growth, being both sceptical of Progress (Fotopoulos, 2007) and sustainable Capitalism (Foster & Clark, 2009; Löwy, 2005, p. 17). In its place, advocates like Bookchin (2004, 2005), a founding philosopher of ES, call for a society ethic that is both communitarian and ecologically sustainable; specifically in the form of Communalism, which would be realised after the attainment of post-scarcity. Accordingly, and also because ES is aligned with the *Limits to Growth* position (Commoner, 1972; Kovel, 2002; Kovel & Löwy, 2001), the position of ES requires a Steady-state or Planned economy as necessary while under scarcity. Additionally, there is a 'globalisation'<sup>2</sup> ontology contained within ES, but one predicated on the pervasion of social phenomena before market forces (Kitching, 2001; Mittelman, 1996; Monbiot, 2003).

The teleos of ES is more subtle than that of the MF. For while ES inherits Marxist philosophy through Socialism, there seems to be cognitive dissonance with Marx's teleological ideas (sometimes to the point of rejection), which predicts the eventual supplantation of socialism over Capitalism (Wanniski, 2011). Notably, while Bookchin (2005, p. 365) outlines a deterministic natural order or natural law that would result in his predicted

---

<sup>2</sup> I have not capitalised Globalisation in this instance to help differentiate it from its usage by Neoliberal philosophies. The vision of leftist globalisation has variously been labelled Democratic Globalisation, Mundialisation, and the Global Justice Movement. It is important to note that while these doctrines of a leftist globalisation share much in common ideologically, they emphasise and contain different notions. They are overlapping rather than identical.

teleos, other ES scholars reject this claim. Specifically, Bookchin's teleology is rejected by Kovel (2002, p. 5) and critiqued by Light (1998, p. 96) as being subject to a naturalistic fallacy. More broadly however, ES scholars are decided scepticism of Marx's teleos, which is regarded as Promethean through its commitment to industrialisation at any cost (Foster, 2002; Sheasby, 1999). This consequently would seem to place Marx's teleos in opposition to the anti-Growth position of ES. This necessitates a version of Socialism that excludes the allegedly Promethean components of his ideology. What is interesting in this consideration is that while Bookchin proposes a technologically produced economic state (post-scarcity) the technological components are explicitly removed (from both Marx and Bookchin) by a majority of ES advocates.

## COMPARISON

In this section, I have provided an overview of the teleological components of MF and ES ideologies. The most striking distinction arises from how entrenched a deterministic view is within their own doctrine. I consider that MF's determinism and ES lack thereof arises because Neoliberalism is a hegemonic ideology that lends itself to a sense of inevitability. In contrast, while ES inherits an academically significant teleology, its claims of universality are lacking with the fall of the Soviet Union and no significant successor.

Accordingly, both MF and ES describe a deterministic view of technology, viz. Technological Determinism, (See Green, 2002; Johns, 2006; Postman, 1992; Smith & Marx, 1994). Moreover, both MF and ES contain a global ontology (Globalisation or Mundialisation), which position themselves towards or against an idea of technology by virtue of its correlation with market forces. On both sides, Technological Determinism is conflated with characteristics of the Idea of Progress (See Arndt, 1989; Caldari, 2004), and then arrives at Growth economics. Through this, both MF and ES describe interlink Technological Determinism with market forces and thusly consider it valuable or problematic. We see this interconnection of Growth and Progress perpetuated by Lomborg and Simon, and consequently see Simon's works provide the basis for Reagonomics and Thatcherism to assume opposition to 'radical environmentalism' (Sagoff, 2012).

Though one might conclude from this that the original position that I'm arguing against is justified, I intend to reveal that the Idea of Progress, or Technological Determinism that both sides invoke is not actually consistent with a particular economic paradigm, but may in fact lead to one or the other.

## PROMETHEANISM: A NARRATIVE OF PROGRESS

I now provide an argument that Prometheanism derives its teleology from the Idea of Progress, and ontologically professes an increasingly better world achieved through science, technology, and modernisation. I will then argue that both MF and ES conflate the Idea of Progress with Growth, and consequently embrace or reject that view.

## PRESCRIPTION: POLEMICS AND CRITIQUES OF PROMETHEANISM

Providing a review of Promethean literature is difficult.<sup>3</sup> There seem to be two types of literature that are prescriptive around Prometheanism. There are those that focus on economic issues, and those that focus on technological principles.

The principle pro-Promethean work I discovered that took an economic position was Lewis (1992), but his work should be more correctly read as a polemic by way of rejecting variants of what it characterised as radical Survivalism (including ES). Similarly, other pro-Promethean works defined themselves more by their rejection of neo-Malthusian environmentalism (See Barnosky et al., 2012; Nørgård, Peet, & Ragnarsdóttir,

<sup>3</sup> In principle, I mean peer-reviewed literature. However, commentary on Prometheanism was limited and I thusly investigated a range of 'para-academic literature', in that they assume academic formats, but their peer-review process is negligible. However, as my intention is to characterise pro- and anti-Prometheanism, positions rather than to substantiate attendant claims, I included a selection of this para-academic literature for review to better develop the core ideas.

2010; Phoenix, 2000).<sup>4</sup> Moreover, the pro-Promethean literature frequently referred to the works Lomborg (2001) and Simon (1986), but neither used the word Promethean (or its derivatives) once.

Of literature critical of Prometheanism, a common refrain identified Prometheanism as an anti-environmental philosophy (McPhail, 2012; Sheasby, 1999; White, Rudy, & Wilbert, 2007), with Dobson (1991) notably claimed there was “no room for Prometheus” (p. 8) in environmental discourse. Indeed, we see a sense that Prometheanism is anti-environmental because it leads towards a Neo-Malthusian environmental catastrophe that the Limits to Growth position warned against (White et al., 2007). Furthermore, a significant portion of anti-Promethean literature spoke specifically to the Prometheanism within Marxist teleology and sought to divorce the two: Clark (1989) asserted that the ‘Promethean Man’ envisioned by Marx was antithetical to nature, possessing a need to subjugate Nature (p. 258); Benton (1989) reduced (Marxist) Prometheanism to being fixated on a history of productivity; and Giddens (1989) contended that the Promethean disposition within Marxism reduces Nature to its instrumentality (pp. 59–60).<sup>5</sup>

The works that approached Prometheanism from its technological ideology, assumed a profoundly anthropocentric ideology with aspirations of achieving post-environmentalism (Shellenberger & Nordhaus, 2011). That is, this idea of Prometheanism seeks to move beyond environmentalism as politicised today and contains a remarkably agnostic position on economics. Consider also, prominent systems theorist Latour (2012),<sup>6</sup> who views of Prometheanism would move environmental discourse beyond a dichotomy of Nature and Technology. I consider that by assuming this perspective, Prometheanism is no longer contending a particular view of Nature either, and may more readily align itself towards ideals of Social Ecological (through Ecological modernisation) towards post-scarcity environmentalism as envisioned by Bookchin and Latour.

## DESCRIPTION: COMPARATIVE STUDIES OF PROMETHEANISM

A number of sources contextualised Prometheanism specifically within an ecological discourse. These texts are more descriptive of Promethean philosophies, and provide an interesting point of comparison to the prescriptive texts mentioned above.

Cohen (2007) identified Prometheanism in her typologies of environmental knowledge orientations. She posited Prometheanism as “process[ing] environmental data through an interpretive filter that has a strong disposition toward science and a weak ecological consciousness” (p. 11); she positioned it against Arcadianism, which she described as being primarily a “numinous-aesthetic knowledge with strong ecological consciousness” (p. 11). However, in these paragraphs, Cohen aligned Prometheanism with Simon and Wildavsky, and aligned Prometheanism to a type of Denialism.

Lack (2013) located Prometheanism in his discourse analysis of climate change scepticism, which juxtaposed Reformist vs. *Laissez-faire* economic ideas, against Prosaic vs. Imaginative philosophies.<sup>7</sup> He located Prometheanism as a variant of scepticism both reformist and imaginative, and contrasted to Cornucopianism (p. 74). Lack contended both ideologies as being predicated on a misguided faith on abundance. He aligned Cornucopianism with Simon due to the Simon’s belief that action on was not yet warranted to address the anticipated effects of anthropogenic climate change. He then aligned Prometheanism with Lomborg for proposing radical technologies to respond to anthropogenic climate change, up to and including geo-engineering.

---

4 NB: Phoenix’s “Promethean Manifesto” is not an intrinsically environmental discourse, and more closely resembles a form of Randian Objectivism. However, its commentary on environmentalism is derivative of Market Fundamentalism, and I have thus included it here.

5 The views of Clark, Benton, and Giddens as presented here are an iteration of the manner those claims were originally presented in Sheasby (1999).

6 Latour is one of the principle theorists behind Actor-Network Theory (ANT), which is a subset of Social Construction of Technology, which is a response to Technological Determinism. It suggests that technology and society have a reflexive relationship which affect and interact with each other to produce civilisation (and to some extent modernity).

7 This dichotomy might better be understood as Nature and Civilisation.

## PROMETHEAN TENETS: THE ANTHROPOCENE

My review of the prescriptive Promethean literature found that they were either a polemic or a critique of its opposition. Therefore, it seems that there is no strong account of Prometheanism that is able to propose its tenets except in reference by describing what it is not. Though of seemingly of secondary importance, I consider that this dependency upon external references lends itself to co-option by external ideologies. Fundamentally, prescriptive literature on Prometheanism seems to collapse support or detraction into either Survivalism or Denialism. This consequently leads to either Market Fundamentalism (support) or Eco-socialism (detraction).

Numerous inconsistencies beset the combined corpus of literature, particularly when trying to define Prometheanism. Notably, while Cohen and Lack both regarded Lomborg as Promethean, they differed on whether to include Simon. Moreover, Lack distinguished Lomborg and Simon as having espoused different types of Denialism: he cited Lomborg's emphasis on a limitless environment, and Simon's emphasis on human intelligence. From my reading of their works I similarly conclude Lomborg having warned against market interference, while Simon emphasised human ingenuity.

## FINAL THOUGHTS

I have concluded that it is a deterministic view of technology that leads to the co-option of Prometheanism towards a particular economic paradigm. Specifically, it is the view that technology is implicitly leading towards a particular teleos that requires us to speculate as to what that teleos might be. If we consider that both Fukuyama and Marx have referred to technology as being implicit in defining their own teleology, it becomes apparent why Prometheanism as an environmental philosophy containing Technological Determinisms becomes implicated.

In response, I have rejected that these interconnections are necessarily true. Moreover, I would agree with a view of Prometheanism as espoused by Latour, Shellengberger, Nordhaus, and perhaps even Bookchin. Specifically, that Prometheanism is anthropocentric and technocentric form of environmentalism, necessarily antithetical to nature, and somewhat agnostic to economics.

## BIBLIOGRAPHY

- Arndt, H. W. (1989). *Economic Development: The History of an Idea*. Chicago: University of Chicago Press.
- Barnosky, A. D., Hadly, E. A., Bascompte, J., Berlow, E. L., Brown, J. H., Fortelius, M., . . . Smith, A. B. (2012). Approaching a State Shift in Earth's Biosphere. *Nature*, 487, 52-58.
- Benton, T. (1989). Marxism and Natural Limits. *New Left Review*, 178, 51-86.
- Block, F. (2009). Reframing the Political Battle: Market Fundamentalism vs. Moral Economy. Retrieved from Moral Economy Project website: <http://www.longviewinstitute.org/projects/moral/sorcerersapprentice>
- Bookchin, M. (2004). *Post-Scarcity Anarchism*. Stirling: AK Press.
- Bookchin, M. (2005). *The Ecology of Freedom*. Stirling: AK Press.
- Caldari, K. (2004). Alfred Marshall's Idea of Progress and Sustainable Development. *Journal of the History of Economic Thought*, 26(4), 519-536.
- Clark, J. (1989). Marx's Inorganic Body. *Environmental Ethics*, 11(3), 243-258.
- Cohen, M. J. (2007). Ecological Modernisation, Environmental Knowledge and National Character: A Preliminary Analysis of the Netherlands. *Environmental Politics*, 9(1), 77-106.
- Commoner, B. (1972). *The Closing Circle: Nature, Man, and Technology*. New York, NY: Bantam Books.
- Dryzek, J. S. (2005). *The Politics of the Earth: Environmental Discourses (2nd ed.)*. Oxford, UK: Oxford University Press.
- Foster, J. B. (2002). Marx's Ecology in Historical Perspective. *International Socialism*, 2(96).
- Foster, J. B., & Clark, B. (2009). The Paradox of Wealth: Capitalism and Ecological Destruction. *Monthly Review*, 61(06).
- Fotopoulos, T. (2007). Is Degrowth Compatible With a Market Economy? *The International Journal of Inclusive Democracy*, 3(1).
- Fukuyama, F. (1989). The End of History? *The National Interest*.

- Fukuyama, F. (1992). *The End of History and the Last Man*. New York, NY: Free Press.
- Geraskov, E. A. (1997). Market Fundamentalism and the Paradoxes of Transition. In D C Durst, M Dimitrova, A Gungov & B. Vassileva (Eds.), *Resurrecting the Phoenix. Proceedings from the Conference on Civil Society in South Eastern Europe: Ethical and Philosophical Perspectives* (pp. 96-102). Sofia: EOS Publishing House.
- Giddens, A. (1989). *A Contemporary Critique of Historical Materialism*. Berkeley: University of California Press.
- Green, L. (2002). *Technoculture: From Alphabet to Cybersex*. Crows Nest: Allen & Unwin.
- Hargreaves, A. (2003). *Teaching in the knowledge society: education in the age of insecurity*. New York, NY: Teachers College Press.
- Henson, R. (2011). *The Rough Guide to Climate Change (3rd ed.)*. London, UK: Rough Guides.
- Johns, J. A. (2006). *Leviathan and Automaton: Technology and Teleology in American Literature*. (PhD - Doctor of Philosophy), University of Pittsburgh. Retrieved from <http://d-scholarship.pitt.edu/7244/>
- Kitching, G. (2001). *Seeking Social Justice through Globalization: Escaping a Nationalist Perspective*. University Park, PA: Pennsylvania State University Press.
- Kovel, J. (2002). *The Enemy of Nature: The End of Capitalism Or the End of the World? (2nd ed.)*. Nova Scotia: Fernwood Publishing Ltd.
- Kovel, J., & Löwy, M. (2001). *An Ecosocialist Manifesto*. [http://www.iefd.org/manifestos/ecosocialist\\_manifesto.php](http://www.iefd.org/manifestos/ecosocialist_manifesto.php)
- Kozul-Wright, R., & Rayment, P. (2007). *The Resistible Rise of Market Fundamentalism: Rethinking Development Policy in an Unbalanced World*. London: Zed Books Ltd.
- Lack, M. (2013). *The Denial of Science: Analysing Climate Change Scepticism in the UK*.
- Latour, B. (2012). *Love Your Monsters: Why We Must Care for Our Technologies As We Do Our Children*. Breakthrough Journal, 2(1).
- Lewis, M. (1992). *Green Delusions: An Environmental Critique of Radical Environmentalism*. Durham, NC: Duke University Press.
- Light, A. (1998). *Social Ecology After Bookchin (1st ed.)*. New York, NY: The Guilford Press.
- Lomborg, B. (2001). The Truth about the Environment. *The Economist*. <http://www.economist.com/node/718860>
- Löwy, M. (2005). What is Ecosocialism? *Capitalism, Nature, Socialism*, 16(2), 15-24.
- McPhail, L. (2012). Addressing Population Growth: The Survivalists vs. The Prometheans. *Community, Environment, and Development: An Undergraduate Research Journal*.
- Mittelman, J. H. (1996). *Globalization: Critical Reflections* (J. H. Mittelman Ed.). Boulder, CO: Lynne Rienner.
- Monbiot, G. (2003). *The Age of Consent*. New York, NY: Harper Perennial.
- Nørgård, J. S., Peet, J., & Ragnarsdóttir, K. V. (2010). The History of The Limits to Growth. *Solutions*, 1, 59-63.
- O'Brien, R., & Williams, M. (2004). *Global Political Economy: Evolution and Dynamics*. Houndmills: Palgrave MacMillan.
- Phoenix. (2000). *Promethean Capitalism Part Five: Environments and Resources*. Retrieved 04 Nov 2013, from [http://www.promethea.org/Misc\\_Compositions/PrometheanCapitalism/Environments.html](http://www.promethea.org/Misc_Compositions/PrometheanCapitalism/Environments.html)
- Postman, N. (1992). *Technopoly: The Surrender of Culture to Technology*. New York: Vintage.
- Quiggin, J. (1999). Rationalism and Rationality in Economics. *On-line Opinion*.
- Sagoff, M. (2012). The Rise and Fall of Ecological Economics: A Cautionary Tale. *The Breakthrough*, 3(2).
- Sheasby, W. (1999). *Anti-Prometheus, Post-Marx. Organization & Environment*, 12(1), 5-44.
- Shellenberger, M., & Nordhaus, T. (2011). *Love Your Monsters: Postenvironmentalism and the Anthropocene*. Amazon Digital Services, Inc: Breakthrough Institute
- Simon, J. L. (1986). *The Ultimate Resource 2*. Princeton, NJ: Princeton University Press.
- Smith, M. R., & Marx, L. (1994). *Does Technology Drive History? The Dilemma of Technological Determinism*. Cambridge: MIT Press.
- Soros, G. (1998). *The Crisis of Global Capitalism: Open Society Endangered*. New York: PublicAffairs.
- Wanniski, J. (2011). *Karl Marx and the End of History*. Supply-Side University Economics Lesson #18. Retrieved from Polyconomics website: [http://www.polyconomics.com/index.php?option=com\\_content&view=article&id=1602:karl-marx-and-the-end-of-history&catid=47:1998&Itemid=31](http://www.polyconomics.com/index.php?option=com_content&view=article&id=1602:karl-marx-and-the-end-of-history&catid=47:1998&Itemid=31)
- White, D. F., Rudy, A. P., & Wilbert, C. (2007). Anti-Environmentalism: Prometheans, Contrarians and Beyond. In J. Pretty, A. S. Ball, T. Benton, J. S. Guivant, D. R. Lee, D. Orr, M. J. Pfeffer & H. Ward (Eds.), *The SAGE Handbook of Environment and Society* (pp. 124-141). New York: SAGE Publications Ltd.
- Williamson, J. (2000). *What Should the Bank Think about the Washington Consensus?* <http://www.iese.com/publications/papers/paper.cfm?ResearchID=351>
- Williamson, J. (2003). *After the Washington Consensus* (P.-P. Kuczynski & J. Williamson Eds.). Washington, DC: Peterson Institute for International Economics.