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# The Entanglement of Scientism, Neoliberalism and Materialism

Joan Walton

*This article builds on a presentation given by Joan to the Galileo Commission and to the Annual Gathering in 2019. It provides a more comprehensive context and analysis of neoliberal and mechanistic drivers of what some people are now calling our polycrisis.*

## Introduction

If we are to overcome the many global crises that threaten planetary life, which include climate change, ecological destruction, terrorism, and pandemics similar to the one we are currently experiencing, it is helpful to have a comprehensive diagnosis of the underlying reasons for these threats to our existence. Anne Baring, in an article I would strongly recommend, 'A Crucial Time of Choice'<sup>1</sup>, uses a Jungian analysis to offer an archetypal overview of the emergence of these crises. She tells the story of the separation of masculine and feminine archetypes, reflected in the image of a God or Goddess, and how this separation has had such a deep impact on Western civilisation.

In this article, I should like to offer a complementary but more recent account, not just of how we come to find ourselves in this dire situation, but how it is sustained and strengthened on a daily basis. My argument is that, over the last 100 years, there has evolved an intertwining relationship between a mechanistic Newtonian worldview, neoclassical economics, and a neoliberal

ideology that was born in 1939 and now has achieved global domination. The beliefs, values and social structures, which have been created as a consequence of this intertwining, promote competition and individualism, and resist any worldview that sees personal and planetary wellbeing as interconnected.

I am aware that politics is not often included in SMN conversations. Perhaps those of us who wish to explore frontier issues of knowledge prefer to see ourselves as separate from partisan activists who engage in the world of daily politics. However, an assumption underpinning this paper is that **separation is an illusion**. I am flagging up from the outset that I think those of us who are passionate about expanding science, and creating a postmaterialist paradigm, need to be knowledgeable about the intrinsic relationship between political practices and the perpetuation of the materialist scientific paradigm that is so deeply entrenched in our society. I hope that, by the end of this article, you will understand the reasons why I have come to this conclusion.

## The intertwining of Newtonian science, neoclassical economics and neoliberalism

The starting point of my account is 1687, when Isaac Newton's book *Philosophiæ Naturalis Principia Mathematica*, was published. This contained the comprehensive mathematical theorising and applied physics, which formed the basis of many of the technological and medical advances that transformed the quality of human lives in the following centuries. The successes were major and numerous, resulting in the formation of a 'Newtonian worldview', in which it was believed that the principles of Newtonian science – separation, determinism, reductionism – were the underpinning principles of all existence. This worldview increased its influence, leading to 'scientism', which is, according to Habermas, "science's belief in itself: that is, the conviction that we can no longer understand science as one form of possible knowledge, but rather must identify knowledge with science" (1986:4).

At this point, it is useful to connect again with Anne Baring's article. She writes: "Materialist or reductionist science – a further example of a powerful, dominating ideology – built on the flawed or unbalanced foundation bequeathed to it by patriarchal religion, has dispensed with both God and the soul. It tells us that the universe is without life, purpose or meaning. When the physical brain dies, that is the end of us. The highest authority is the rational mind. We are separate from the world around us. The Master Story is technological progress."

Most readers of *Paradigm Explorer* will know that the evidence to challenge a materialist scientific worldview is extensive. The report of the Galileo Commission<sup>2</sup> contains detailed arguments to support the revision of this materialist paradigm, as do many books and articles. Despite this, it continues to dominate the mainstream mindset. As a consequence, quoting Carl Jung, "As scientific understanding has grown, so our world has become dehumanised. Man feels himself isolated in the cosmos, because he is no longer involved in nature and has lost his emotional 'unconscious identity' with natural phenomena"<sup>3</sup>.

Findings from quantum physics have challenged the principles of classical science, instead revealing a participatory universe (Wheeler, 1994) in which there

is an inseparability between knower and known. A key term in quantum physics is entanglement, where there are no individual particles, but instead an inseparable whole. Carlo Rovelli, an Italian theoretical physicist, in his recently published book, *Helgoland*, develops the idea of a relational cosmos, where "people are interacting with other people, who are interacting with their world. This is the place where science comes to life"<sup>4</sup>.

Despite both scientific and experiential evidence for the interconnectedness of all life, demonstrating, as David Bohm phrased it "*an undivided and unbroken whole*" (1980:158), the materialist scientific paradigm continues its domination. After puzzling about this for a long time, I engaged in an in-depth search for literature that would help me understand the reasons why. This led me to the work of Edward Fullbrook, visiting Professor at the University of West England and Director of the World Economics Association, who sees the teaching of economics as a major element in perpetuating scientism. He writes:

"From the 1960s onwards, undivided allegiance to the determinist-atomistic narrative became, with few exceptions, a basic requirement for making a career in economics... Economics...remains locked in the same narrative dogmatism from which physics escaped a century and a half ago.....At great cost to humanity, economics in its traditional centres moves ever further away from the ethos of science and becomes ever more ruthlessly devoted to scientism..... Scientism is always a farce, but in this case it is one leading humanity towards devastation. We, economists and non-economists, urgently need to understand this intellectual cult threatening us all" (2016:1-2).

Fullbrook traces the beginnings of this allegiance to the 'determinist-atomistic narrative' to the end of the 19<sup>th</sup> century, when "economics was touting itself as a science on a par or near par with physics" (2007:161). He is referring to the co-founders of neo-classical economics, William Stanley Jevons (1835-1882) and Marie Leon Walras (1834-1910), whose original theorising was explicitly built on scientific principles. When introducing his theory of economics, Jevons wrote, "But as all physical sciences have their basis more or less obviously in the general principles of mechanics, so all branches

and divisions of economic science must be pervaded by certain general principles... the mechanics of self-interest and utility (1871 [1970]:50).

Walras wrote in a similar vein: "This pure theory of economics is a science which resembles the physic-mathematical sciences in every respect" (1874 [1984]):71).

Jevons and Walras then proceeded to define a model of economics, based on free market principles, which would demonstrate that relationships between different aspects of the economy were analogous to the cause-and-effect relationships between objects studied by classical science. Fullbrook argues that the significant aspect of the economic theories developed by Jevons and Walras was that they relied on a Cartesian split between the will of the human being, and the natural world inhabited by that will:

"This Cartesian self is mandatory if economic relations between human personalities are to be imagined as isomorphic to those between Newtonian bodies, that is, interacting but without altering their individual identities" (Fullbrook, 2016: 60).

The commitment to the mechanistic principle of market forces guided the meeting of economists in 1938, where the term 'neoliberal' was first coined (Monbiot 2016a). Neoliberalism remained a relatively low-profile concept, as the UK government was engaging more with Keynesian theory as a means of dealing with the economic consequences of the Second World War. However, the idea was developed more fully at the conception in 1947 of the Mount Pelerin Society in Switzerland, attendees at which included Frederik Hayek, Ludwig Van Mises and Milton Friedman, all of whom were to be influential in the development of neoliberalism (Mirowski & Plehwe 2009).

Over the following decades, the members of the Mount Pelerin Society continued to advance their theories. Milton Friedman, writing in 1966, reinforced the belief that his notion of a 'positive economics', as distinct from a 'normative economics', was as reliable as any of the physical sciences in terms of its ability to analyse and accurately predict: "Positive economics is in principle independent of any particular ethical position or normative judgements....Its task is to

provide a system of generalisations that can be used to make correct predictions about the consequences of any change in circumstances. In short, positive economics is, or can be, an 'objective' science, in precisely the same sense as any of the physical sciences" (1966:4).

It was not until 1979, though, when Margaret Thatcher was elected Prime Minister, that "the dramatic consolidation of neoliberalism as a new economic orthodoxy regulating public policy at the state level in the advanced capitalist world occurred in the United States and Britain" (Harvey 2007:22).

For the last 40 years, neoliberalism has increasingly promoted the separatist, reductionist and deterministic assumptions of classical science in its adherence to the efficacy of market forces, and its promotion of those principles throughout all institutions, including education, health and social welfare (Brown 2019, Daza 2013, Giroux 2014, Monbiot 2016a).

### The relationship between neoliberalism and the materialist scientific worldview

For the last two decades of the 20<sup>th</sup> century, when the neoliberal ideology was strengthening its dominance, firstly in the UK and USA, but increasingly having global impact, the term 'neoliberalism' was little known. George Monbiot suggests this was a strategic decision to prevent the public from understanding what was happening. He states that, in the transition from social democracy to neoliberalism, "the movement lost its name. In 1951, Friedman was happy to describe himself as a neoliberal. But soon after, the term began to disappear..... Charles Koch, (one of the richest men in the world who co-founded the Tea Party movement), in establishing one of his thinktanks, noted that 'in order to avoid undesirable criticism, how the organisation is controlled and directed should not be widely advertised'" (Monbiot 2016b).

Even in the academic world, neoliberalism as a concept or political ideology was not much explored in the early days of the Thatcher era. Venugopal (2015) discovered that from 1980-89, there were only 103 Google Scholar entries in English with the term 'neoliberal' in the title. While writing this article, I found that, between 2010 and the present, there were 340,000 entries. A search for 'neoliberal'

in the title of books on Amazon, written in English, showed over 1,000 results, with the majority being published in the last 10 years. There has been an explosion in awareness of the political ideology that is reinforcing the mechanistic, materialist paradigm in our society, in the meanwhile, blocking attempts to create a new, more nurturing, compassionate worldview.

It is not possible, in this short article, to write a comprehensive review of the literature that has been published about the nature and damaging impact of neoliberalism and contemporary political structures. However, I will provide a snapshot of a few, to give the reader a sense of what is being written and researched.

Professor Wendy Brown, of the University of California, Berkeley, has written two books (2015, 2019), detailing the historical unfolding and destructive social consequences of neoliberalism. In the preface to the first book, she states: "as a normative order of reason developed over three decades into a widely and deeply disseminated governing rationality, neoliberalism transmogrifies every human domain and endeavour, along with humans themselves, according to a specific image of the economic. All conduct is economic conduct; all spheres of existence are framed and measured by economic terms and metrics, even when those spheres are not directly monetised. In neoliberal reason and in domains governed by it, we are only and everywhere *homo oeconomicus*, which itself has a historically specific form" (2015: 9-10).

Brown's introduction to the second book talks about "neoliberalism's relentless diminution of nonmonetised existence, such as being knowledgeable and thoughtful about the world" (2019:6). Professor Raymond Geuss, from the University of Cambridge, reviews her work: "Brown deepens the conceptual analysis and criticism of neoliberal ideology, now on the point of becoming the dominant way people think about themselves, their lives and their social world. In illuminating detail, she also discusses the real and horrifying social changes taking place .... This book helps us understand the world we have increasingly been forced to live in, and to begin the process of thinking about what might be done to revitalise our political imagination and practices."<sup>3</sup>

Dr Philip Roscoe, Reader at the University of St Andrews, in his book *I Spend, Therefore I am*, states that neoliberalism derives from two assumptions: "The first, explicit, claim is that people are self-interested and respond to incentives. Economic models have a mechanistic tone, with people assumed to react to stimuli with the same predictability and regularity as a motor and its switch. The second assumption is of fundamental individualism: the idea that people take their own decisions, individually responding to the incentives they find around them. All kinds of motivation, whether hunger, greed or malice, generosity, compassion or love, can be reduced to variables in the model" (2014:48).

Of major relevance to an organisation named "The Scientific and Medical Network", the practice and content of science itself is being increasingly analysed in relation to the influence of neoliberalism. For example, in a highly rated academic journal<sup>6</sup>, *Social Studies of Science*, a special issue in 2010 was dedicated to investigating the impact of neoliberalism as a regime of scientific management<sup>7</sup>. The overall message is the need for an urgent exploration of how external political-economic forces of neoliberalism are transforming the methods, organisation and content of science. The claim that many make for science to be 'objective' and 'value free' is not only challenged on philosophical grounds, but is in fact shown to be subject to political exploitation and manipulation. **In such a context, when the activities and funding of mainstream scientists are so carefully managed, what likelihood is there that expanding our understanding of science, as explored by the SMN and others with similar interests, has any chance of obtaining interest other than by those on the margins of society?**

This is not just the rational rejection of new ideas about reality by individual scientists. This is an ideology that seeks to control what goes on within institutional systems and structures, and in the process, permeates the brains of individuals within those institutions. Ideas of freedom relate to the operation of mechanistic market forces, not to the creative thinking and imagination of individuals and social groups intent on forming a safer and more spiritually aware world for all. Through their ideology, social policies, and economic decision-making, the neoliberal politicians, and those with vested interests

in the system as it currently exists, perpetuate the materialist worldview that is proving so destructive to our wellbeing.

### What can we do?

In 1994, Corinne McLaughlin and Gordon Davidson published a book *Spiritual Politics: Changing the World from the Inside Out*. The main message was that we could change the world by changing our inner selves. “Overreliance on archetypically masculine expressions of energy, such as dynamic will and power, is transformed into a balanced masculine-feminine expression that enhances the nurturing, intuitive, and inclusive qualities in both men and women in order to solve the global problems we face..... Passive dependence on political leaders is transformed into personal empowerment” (p.21).

I read *Spiritual Politics* in 1995, the same year as I joined the SMN. I truly believed, at that time, that meditation, connecting with an inner source of guidance, and working with others to achieve positive social change, would contribute to the larger endeavour of achieving the global shift in consciousness that McLaughlin and Davidson write about. At the beginning of the new century, I met regularly with a group of like-minded others over a three-year period, to explore how we could collaboratively contribute to this process. But although I felt that my experience within that group was personally transformative, and it gifted me with deep and abiding friendships, I look at what is happening in wider society, and see only an intensifying of problems. Danny Dorling, Professor of the University of Oxford, researches the quality of lives of citizens in the UK. In his 2019 book, *Inequality and the 1%*, he provides evidence to show that since the great recession in 2008, the gap between the richest 1%, and the rest of society, has increased dramatically. However, the inequality is not just about economics. Whilst the rich have found new ways of protecting and increasing their wealth, the life expectancy, educational and work prospects, and the mental health of the majority, have been adversely impacted.

I have no easy answers. However, what I would like to put forward is a request: and that is, please look for ways to connect with others, perhaps in unexpected places, with whom you might not normally think of connecting. At the beginning of this paper, I stated that an underpinning

assumption for me is that separation is an illusion. Quantum physics shows us this, in revealing the inseparability of the knower and known, subject and object, particle and wave. Giles Hutchins, in his book *The Illusion of Separation*, explores the view that the source of our current social, economic and environmental ills springs from inherent flaws in how we see and construct the world. I think most readers of *Paradigm Explorer* would agree with this. Separation, though, works in multifarious ways. As someone who joined the academic world late in my career, I can feel the separation from some members of the SMN, whom I hear dismissing the Academy, due to its resistance to, for example, ideas of a postmaterialist science. But it's important to realise that the Academy, as a social institution, is also subject to the neoliberal agenda. Professor Pat Thomson, from the University of Nottingham, provides a well-researched account of what is currently happening in the UK education system, particularly in schools. She writes: “while neoliberalising states promote and foster international and intranational markets, they must attend to their own internal operations.... A market must be created for state-provided services ... to ensure contestability, efficiency and effectiveness” (2020:29). Professor Henry Giroux, an American academic, in *Neoliberalism's War on Higher Education* (2014), reveals how neoliberal policies and practices have radically reshaped the mission and practice of higher education, through market-driven educational policies.

My experience, though, is that there are many individual academics working within universities who are aware of this, and are striving to find their own forms of resistance. They may be coming from different places, and tackling the problem in different ways, to members of the SMN. But what they have in common is an understanding of the threats to social and planetary existence, and the realisation of the need for a different worldview. If we are to survive those threats, we need to realise the bigger picture, and craft stronger and diverse alliances. How can we create shared ground, that will allow those of us who understand the severity of the crises we face, to find ways of constructive collaboration, despite the different paths we have been on prior to achieving that realisation, and probably also a difference in views about how best to move forward?

My wish is to increase mutual understanding in ways that dissolve boundaries between apparently separated groups of people. In my university role, I am including ideas about consciousness and spirituality in my research and teaching; and in my postgraduate courses on research methodologies, I am adding a ‘participatory consciousness’ research paradigm to the more traditional ones of positivism, interpretivism and critical theories. In my role here, as a long-term supporter of the SMN, currently on the Board of Directors and a Member of the Galileo Commission Phase 3 Steering Group, I would like to create awareness of, and interest in, some of the issues with which academics are grappling. One of these issues is the impact of neoliberalism, on all aspects of our world, which includes how its ideology and practices create seemingly impenetrable barriers to a planetary transformation in consciousness.

I would be interested to hear how readers of this article respond to the notion that politics is an entangled dimension of reality, and what ideas there might be for integrating this theme into conversations about expanding science within a postmaterialist paradigm?

### Postscript

*Following comments by a reviewer, I would like to add the following points. When I am referring to a ‘Newtonian paradigm’, I am referring specifically to the principles of separation, determinism and reductionism that were integral to Isaac Newton’s science, and were directly influential in the formation of neoclassical economics, explicitly influenced by Isaac Newton’s science by Walras and Jevons. I fully acknowledge that Newton himself was something of a mystic, as are many scientists, and would himself have wanted to separate out his scientific views from his metaphysical beliefs (as do many scientists).*

*I would also like to add that I do not see the Newtonian paradigm as being solely responsible for the current lack of interest in spirituality, nor the aridity of our culture when we come to look at deeper levels of reality, including a reality that extends beyond this embodied one. The growth of postmodernism in the last fifty years, with its emphasis on subjectivity and the relativity of knowledge, began as a counter-narrative to modernism, with its belief in the idea of an ‘objective’ reality which existed independently of*

*the observer. Unfortunately, although postmodernism has taken on board the principles of interconnectedness, entanglement, and ethics being integral to the universe, with a commitment to issues such as social justice, it still has materialist foundations in that it, often tacitly, excludes consideration of a transcendent reality. I will address this issue in a follow-on paper entitled Postmodernism and Transcendence in the next issue of Paradigm Explorer.*

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Endnotes

- 1 Paradigm Explorer 2020/3
- 2 <https://galileocommission.org/report/>
- 3 Jung, C.G. *Man and His Symbols*, p. 95
- 4 Neil Gaman, Back cover Helgoland.
- 5 Brown 2015, back cover.
- 6 Scopus rating: History- 2 out of 1259; History and Philosophy of Science: 5 out of 149.
- 7 2010 vol 40(5), pp 659-675.



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