From Forecasting and Scenarios to Social Construction: Changing Methodological Paradigms in Futures Studies

Introduction

This chapter looks at shifts that have occurred in underlying methodological paradigms in Futures Studies (FS) over the last several decades. It suggests a progression from forecasting to scenarios to social construction and seeks to account for the rise of the latter. As is now well known, all fields are affected by disciplinary paradigms that supply practitioners with powerful accounts of the important questions to be studied and the methods that are to be employed. Futures Studies (FS) is not different in this regard. Those socialised into the discipline tend to pick up and use the prevailing prescriptions of the time and to work with these over extended periods.

When I first encountered FS in the 1970s the journals were filled with papers about forecasting. At that time this was clearly the key methodology. Since then, however, we have seen the rise of scenario building, or scenario planning, as it is sometimes called. The term 'scenario' was coined by Herman Kahn, was popularised by organisations such as GBN and has long passed into public awareness.

I've always seen the point of scenarios. When done well (which may be less often than is commonly assumed) they can illuminate aspects of possible futures and then tie these back to assumptions, ways of thinking, decisions etc. in the here-and-now. Yet, over time, I've become less and less satisfied with them, especially conceived as a paradigmatic methodology. This paper is an attempt to explain why. It also attempts a preliminary exploration of an emerging methodological paradigm better suited, perhaps, to a maturing discipline and the wider twenty first century context.

Forecasting as a necessary contradiction

Before dealing with forecasting *per se* I must first deal briefly with the underlying notion of prediction. There are basically two views about this in the field. One, held most strongly by Wendell Bell, is that all forward-looking references involve prediction in some form. A paradigmatic source for this view is his experience of flying from moving aircraft carriers at the end of World War Two.[1] I respect his view but am personally drawn toward a different one, namely that prediction in social systems is neither possible nor desirable. In other words, I want to restrict the term to those situations that can be comprehensively mapped, measured and modelled, e.g. the movement of planets around the sun. I will leave aside questions of irreducible uncertainty here, and also those dealing with quantum physics. The point is that if you understand a system at the macro level you have a reasonable basis for predicting its future states up to some point.

Successful prediction conveys power. If you know an eclipse or a flood is coming you can make appropriate preparations. But the understandable desire of people to 'predict the future' is in direct conflict with the view of people as agents and makers of history. Successful prediction across the board would render us as passive observers. Fortunately

such full-scale 'foreknowledge' is not available to us. But humans, being humans, shapers and would-be masters of this small planet, have a built-in need and capacity to direct, control and construct. The globe-spanning infrastructure that surrounds us today is conclusive evidence of that.

Within that broad domain are many interests, situations that absolutely require some foreknowledge. If you want build a house that will withstand strong winds or periodic flooding you need to make judgements about how to construct it and with what materials. Similarly, if you want to build a bridge, you must anticipate how it will be used and what stresses it will have to bear. As the twentieth century infrastructure developed, however, such physical features were well covered (in most cases) by the applied discipline of engineering. The need for forecasting then shifted somewhat to financial and economic matters: what would be the level of demand for the bridge, airport or power station? What return on investment (ROI) could be anticipated? In other words, how good an investment was it likely to be? Such questions have become all-too-familiar. They, too, have passed into wide public awareness such that they have sometimes appeared to be the only significant questions before us.

Forecasting flourished in the twentieth century because it attempted to come to grips with such questions and to provide investors, corporations and governments with tools for making the necessary decisions. A whole set of methodologies developed to support this initiative and, for a while, forecasting flourished. Yet the underlying dilemma about prediction and freedom of action was never fully resolved, with the consequence that forecasting lost legitimacy. Let me be clear: I am not saying that forecasting became redundant - far from it. It remains in wide use, necessary use, in countless instrumental contexts today. Rather, what has been lost, and probably lost forever, is the notion that forecasting can tell us much of value about how we should operate in the world and, more particularly, how we should resolve some of the very serious issues facing humankind. Since such questions are bound up with complex social and human issues, forecasting fell silent when confronted by the human predicament.

Scenarios and the discovery of divergence

When Herman Kahn developed the first formal scenarios at the Hudson Institute in the 1960s and 1970s he was drawing on human capacities that had existed from the dawn of time to consider, and respond to, the not-here and the not-yet. The context that concerned him, however, was that of the Cold War and, in particular, the strike/counter-strike ideology of the time. His works *On Thermonuclear War* and *Thinking About the Unthinkable* elevated the use of scenarios for military purposes way beyond its earlier use in simple war games.[2] Thus from the outset the exploration of divergence was driven by military and strategic considerations. It took a little longer for this methodology to be domesticated and integrated into strategic planning and organisational decision-making. But that is what happened.

By the 1980s and 1990s a flourishing industry had developed around the commercial and government uses of scenarios. The point was, and remains, that a useful response to the irreducible uncertainties associated with forecasting was to shift the focus of anticipatory work to new ground. That is, to set aside hopes for accurate forecasts in favour of two other valuable gains: exploration of divergence and preparation for change.

This was a successful move. It led to the widespread use of scenarios in many different contexts. Moreover, the tools involved were less esoteric than the maths that supported rigorous forecasts. You no longer needed a doctorate to use the new methods. All you really needed was a small group of willing participants, a whiteboard and a felt tip pen! The methodological bases of scenario building are (a) conceptual exploration and (b) simple group processes. Henceforth, anyone could become a scenario builder. And indeed, nearly everyone did. A whole army of semi-trained scenario builders spread out through the boardrooms of commerce, the convocations of government and even, in some cases, the ivory towers of academia. The future had arrived! Or, rather, scenario building had. Since the approach was readily understood and easily mastered it spread out and assumed prominence as the central 'keystone' methodology of futures work.

This was indeed a huge success. People were now no longer just 'talking scenarios' a lot of them were actually creating them. Even schoolchildren could get their heads around scenarios and pump them out on demand. In one sense, therefore, scenarios represent what could be considered the most successful example of the diffusion of a futures methodology. After all they have a number of very attractive features. These include:

- ease of use;
- a participatory method;
- direct relevance to specific situations; and
- a valuable intrinsic flexibility.

Moreover, at the upper end of the market, scenarios could bring a new sophistication to strategy and decision-making. Yet underlying this success there are a number of weaknesses that make scenarios a less than satisfactory method. I will mention just three.

First, while there are certainly interpretive elements in all scenario building, the focus is mostly on the *external* tracking of possible events and situations. In other words, these 'future worlds' tend very strongly to foreground empirical elements and to hide, or obscure, non-empirical factors (see below). Second, standard approaches to scenario building tend to accept current social reality as unproblematic, as 'just being there.' They lack any notion of, or way of, operationalising critique. This means that scenarios are readily assimilated into existing power structures, inequities, dysfunctions without anyone being aware of the fact. Third, and possibly the most serious criticism of standard scenario building, is that it allows, encourages, individuals and organisations to explore future divergence in a kind of 'free-floating' way that bears little or no relation either to the actual dynamics of the global system (however conceived) or to the broader

frameworks of understanding that are currently available. In other words, the practice of scenario building, scenario planning, failed to reflect or embody the depth of insight and understanding of its most advanced practitioners.[3]

In summary, few can deny that, at the instrumental level, scenarios can be extremely useful. When done well they can also succeed at the level of strategy and high-level decision-making. Their weaknesses, however, make them a problematic methodology for dealing with the complex and ramified concerns of a world facing unprecedented demands and challenges. For this we will need to look in another direction entirely.

Emergence of Critical Futures Studies

Critical Futures Studies (CFS) emerged, in part, from a doctoral dissertation written during the period 1978-1982 – in other words, during the 'fall' of forecasting and the beginning of the rise to ascendancy of scenario building.[4] In the early days I simply read as much as I could and begin to 'map' what I saw as the futures domain. Of the two main centres of work – Europe and America – the latter was clearly dominant. Here were more futurists, SF writers, consultants etc. than there were in the whole of the rest of the world. At first I saw no problem with this. But as I gained familiarity with the material I saw a number of distinct difficulties with what I later termed the 'American mainstream empirical tradition.' To cut a long story short, I found that I could not proceed without developing a critique of that tradition. Specifically, I commented on its:

- superficiality and lack of depth;
- failure to recognise the roles of language, power and embedded social interests;
- lack of understanding of its own sources and grounding;
- routine appropriation (not only in the USA) by the powerful;
- over-confidence in easy or simplistic prescriptions; and,
- lack of awareness of, openness to, other traditions and 'ways of knowing.'

My aim had been to explore what I saw as the deep and systemic (yet obscured) relationships between FS and education. But the materials, approaches, methods and guiding ideas then available were simply not good enough. In order to propose changes in anything so protean and set in place as an education system, one would need much more powerful tools. So it was that, with the help of a first rate supervisor, I discovered a number of deeper sources of enquiry that cast new light on the problems and issues that arise in the futures domain. Since I have written about these elsewhere I will not repeat the story here.[5] The upshot is that I emerged with a view of futures work that was both broad and deep. I'd seen that work that merely addressed the surfaces of the taken-for-granted, everyday, world had no chance whatever of dealing with the deeply-embedded cultural and human dilemmas that I was rapidly becoming aware of. What to do?

Over time I devoted myself to exploring the implications of CFS. It had become clear, for example, that behind the façade of everyday life were a host of structures, processes,

factors, realities in fact, that should not be overlooked. Indeed, to understand the present one had to cover two very different sub-domains of futures-related work. One is the past that poses questions such as: how did we get here? Why do we live in this particular world (and not the countless others that were once possible)? The other is the 'depth' that is inherent in what we mean by 'the present.' In other words, I'd tripped over two routes to what one may call 'the inner world.' That was when I made what for me was a key discovery: that in many respects (but obviously not all) the 'inner' world appears to precede and underpin the 'outer' one! Or, to put it differently, personal, organisational and cultural worldviews give rise to the humanly constructed external world that, in turn, exists in a dynamic and ambiguous relationship with the world of nature.

In this view, what seemed crucial was not so much the pursuit of 'outer' concerns that were, in some sense, 'downstream' from the hidden sources. Rather, the central issue was: how could we gain sufficient clarity about the construction of our reality (realities) to be able to intervene in the coding of 'the way things are' in a worldview, in deeply held values, in presuppositions and obscured social interests? Failure at this level seemed to lead straight to the 'overshoot and collapse' futures that had been described in FS since the early 1970s and earlier in Dystopian SF.

So it seemed to me that a central concern for CFS could be summed up simply and directly as 'the re-negotiation of meanings.' This obviously means that futures work so understood is largely symbolic. Access to the field is through what Wendy Schultz called 'futures literacy.' In time I came to see such literacy as necessarily coming *prior to* the tools and methodologies of the professional futures field. Indeed, I came to the view that without the former the latter risks becoming 'thin' and unproductive - which, strangely enough, is exactly the fate of most of the scenarios I have ever seen. They skate handily enough around the surface but fail to deal in depth with the problematics of people, organisations, cultures in stress and transformation.

On the other hand it seemed that the critical approach I had slowly worked toward could shed some light both on the way things are as well as on the way they could be. This is not a predictive interest. Rather, it's an emancipatory one, exactly as Habermas suggested some years ago. The latter is not about control. It's about the rights, freedoms and capacities of self-constitution in social contexts. It became clear, moreover, that much of the futures field at the time remained preoccupied with surfaces. The most popular books simply skated over constitutive social realities and, it seemed to me, missed the point completely. So I termed this work 'pop futurism.' It was, and remains, frothy, insubstantial and ideal for the rapid visual clip or sound bite so beloved of the mass media.[7]

Underlying this I saw that most well intended futures work around the world focused on real-world issues and problems. Planning departments, environmental protection agencies, strategising in organisations etc. This work was more serious, more focused, really just trying to deal with everyday concerns in appropriate and sensible ways. The main difficulty was that, given the global predicament, such work is simply not good

enough. I felt very strongly that we had to go deeper. And what I found was that the deeper we go (into the constitution of 'the way things are') the more demanding the work, certainly, but also the more penetrating are the insights, the more *symbolic* power emerges, the more options can be seen both in inner and outer worlds.

Productive futures work, however, is not, nor can it ever be, an individualistic enterprise. Over the years I suppose I have drawn on the work of hundreds, perhaps thousands, of other people, mainly through literature, but also through a global network of personal contacts. It is here that futures organisations such as the World Futures Studies Federation (WFSF) play a key role. It was at a conference organised by the latter that Inayatullah saw a presentation I gave about these various 'layers' of futures work. He saw that this approach could be rendered as a method. Thus was born one of the first methodological developments of the new perspective.[8] The latter can be distilled into a simple workshop method that has proved valuable in a wide range of circumstances.

An emerging paradigm - the social construction of reality

It's interesting to see how the various threads and developments of various fields arise in different places, at different times, and now and then meet up later, yielding the possibility of a new synthesis, or a series of them. A source work on the Social Construction of Reality (SCR) was published in 1966.[9] It intersected with other streams of innovation in sociology (such as the sociology of knowledge and studies of science and society) and certainly informed some components of critical futures work. But it was not until later that the centrality of SCR to advanced futures work became clear. I drew attention to some aspects of it in my initial formulations of CFS.[10] Another who was drawn in this direction was Kate Miller. Her 1994 paper in the *WFSF Bulletin* provided a succinct and readable summary of the role of SCR within an advanced futures discourse.[11] It remains surprising how few people have actually made this connection. The streams of discourse continue to flow in mainstream sociology with, for example, Ulrich Beck's books on globalisation and what he calls 'world risk society', to which I will return below. But a substantive connection remains to be made. The rest of this paper is a tentative sketch of what that may involve.

One starting point is the term 'social reality' itself. As Miller puts it: 'what is regarded by the public as social reality is a construction to which each member contributes by selecting from available information to develop a picture of the world.'[12] In their now-classic text on the subject, Luckmann and Berger consider some of the ways that societies are constituted by history, culture, institutions, roles etc. For example, they suggest that: 'the relationship between knowledge and its social base is a dialectical one, that is, knowledge is a social product and knowledge is a factor in social change.'[13]

They consider the role of reification - the view that what has been created by human beings has some sort of independent reality. Further, they suggest that when this occurs there has been a loss of memory of human authorship. Thus power slips away, is seen as external. The question is whether humans can retain the awareness 'that, however

objectivated, the social world was made by men – and therefore can be re-made by them.'14

Such statements clearly resonate with some of the underlying purposes of CFS. But the relationship is much more than a vague resonance. The language and concepts that are so central to the SCR discourse feed directly and explicitly into the problematic which is central to both domains. Consider the following.

> The legitimation of the institutional order is … faced with the ongoing necessity of keeping chaos at bay. All social reality is precarious. All societies are constructions in the face of chaos. The constant possibility of anomic terror is actualised whenever the legitimations that obscure the precariousness are threatened or collapse.[15]

Here we can see one source of society's necessary resistance to change, its fearfulness of social innovation, its fury when confronted with certain symbolic challenges. It's exactly this territory that is the arena within which CFS operates. It is the social heartland, vital to the functioning of society on a day-to-day basis, yet contested in its very essence. Thus the strategies of social defence are very, very powerful. Logically, then, this is where questions of power (especially definitional power, the power to exclude) are unavoidable. It's worth re-emphasising here that I'm not thinking of instrumental power (the power to re-shape the world externally) but symbolic power (the power to define the foundations of the social order).

Luckmann and Berger describe various sorts of social legitimation as 'machineries of universe-maintenance' and comment that 'the success of particular conceptual machineries is related to the power possessed by those who operate them.'[16] Here is the nub of the issue: to what extent does CFS itself constitute a self-consistent, liberating and constructively powerful symbolic universe of its own? Is it coherent enough, is it sufficiently widely established, is it capable of being fully legitimated by sufficient numbers of thinking people to fulfil its potential as an agent of social progress and social re-construction?

I want to add one further element before bringing this brief discussion to a close. One of the most interesting speech communities that have organised around the need to understand the global environmental predicament is that which is dedicated to describing empirically some of the impacts and costs that humanity is continuing to impose on the natural world. Among these is the Washington-based Worldwatch Institute that publishes yearly up-dates on global environmental issues.[17] These volumes are clear, well researched and authoritative. They depict a world in stress and in peril. And yet something is missing. Beck describes this perspective as 'naïve realism.' Why naïve? Because 'the unreflexive viewpoint forgets or suppresses the fact that its 'realism' is sedimented, fragmented, mass-media collective consciousness.' Or again, because 'the definitional power of realism rests upon exclusion of questions that speak more for the interpretative superiority of constructivist approaches.'[18]

He then outlines what he calls a 'social-constructivist view.' Here 'talk of a 'world risk society' rests not on a (scientifically diagnosed) globality of problems but on 'transnational discourse conditions' … which assert within public space the issues of a global environmental agenda.'[19] He then goes on to argue for a *rapprochement* between a reflexive realism and a social constructivist approach to the global predicament.

Conclusion

The significance of social construction within the CFS view is as follows. It decisively moves debates about the currently threatened world and its many futures options away from the simpler and immediate arena of externals to the processes of self-understanding, self-constitution and mediation of power and meaning at these formative levels. Perhaps the central claim of CFS is that it is here, in the symbolic foundations of the social order that the wellsprings of the present lie, as well as the seeds of many possible alternative futures. If the latter is indeed the key guiding concept of futures work generally, then I doubt that it can be effectively operationalised without a steady shift into the areas I have described above and a much wider engagement (on the part of futures workers and others) in this powerful symbolic domain than hitherto.

This chapter has argued that three central methodologies can be found within FS over the past decades. Each of them is paradigmatically distinct. Forecasting was an attempt to assert control and a measure of certainty over an unknown future. Scenarios are an attempt to explore diversity within the forward view. The social construction of reality is an attempt to further the deepest purposes of critical futures work in ways that lead toward more humanly viable futures than those currently in prospect.

References

1. Bell, W. *The Foundations of Futures Studies*, vols 1 & 2, Transaction Pubs, New Jersey, 1997.
2. Kahn, H. *On Thermonuclear War*, Princeton, New Jersey: Princeton University Press, 1960, and *Thinking About the Unthinkable*, NY, Avon Books, 1962.
3. See Ogilvy, J. Futures Studies and the Human Sciences: The Case for Normative Scenarios, in Slaughter, R. (ed) *New Thinking for a New Millennium*, London, Routledge, 1996, 26-83. Also Tibbs, H. Global Scenarios for the Millennium, in Slaughter, R. *Gone Today, Here Tomorrow: Millennium Previews*, Prospect, Sydney, 200 333-341. For an outline of an impressive meta-framework for considering these questions, see Wilber, K. *A Brief History of Everything*, Hill of Content, Melbourne, 1996.
4. Slaughter, R. *Critical Futures Studies and Curriculum Renewal*, PhD, University of Lancaster, 1982.
5. Slaughter, R. An Outline of Critical Futures Studies, in Slaughter, R. *Futures for the Third Millennium - Enabling the Forward View*, Prospect, Sydney, 1999.

6. Meadows, D. et al, *Limits to Growth*, Universe Books, NY, 1972. Also see AtKisson, A. *Believing Cassandra*, Scribe, Melbourne, 1999.
7. For numerous examples of 'pop futurist' thinking see any issue of the World Future Society's magazine, *The Futurist*, WFS, Bethesda, MD, USA.
8. Inayatullah, S. Causal Layered Analysis. Poststructuralism as Method, *Futures* 30, 8, 1998 pp 815-830.
9. Berger, P. & Luckman, T, *The Social Construction of Reality*, Penguin, London, 1966.
10. See Slaughter op cit notes 4 & 5.
11. Miller, K. Constructing Future Realities, *WFSF Bulletin* 69, 21,1, 1994 pp 1-16.
12. Ibid p 4.
13. Berger & Luckman op cit 1966 p. 104.
14. Ibid p. 106.
15. Ibid p. 121.
16. Ibid p. 123-6.
17. Brown, L. et al *The State of the World 2001*, Earthscan, London, 2001.
18. Beck, U. *World Risk Society*, Polity Press, Cambridge, 2000, p 24.
19. Ibid p 24.

Note

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