

A Review Of Scenario Worldviews

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Abstract

This paper is part of a planned series of three that introduces the rationale, theory and methodological suggestions for an integral approach to scenario development. This paper focuses on a review of scenario theory, method and practice using elements of an integral critical theory concerning worldviews.

Introduction

Of all the futures methods developed over the past half century, three stand out as being the most wide spread amongst different disciplines and situations of use: forecasting, visioning and scenarios. Forecasting is far from the current mainstay practices of contemporary Future Studies (FS), and Visioning has become subject to many cynical interpretations of practice due, in part, to its lack of theoretical grounding. In comparison, scenarios are well developed, highly visible in use, and have been enjoying an ascendancy, spreading far and wide, and become established as FS's 'foundational method.'¹

Over the past two years this author has been asking Australian futurists, and in some instances 'international' futurists, what they think of scenarios as a futures method. The sentiments returned have ranged from disdain, through boredom or caution, to outright zeal. The interesting aspect of these dialogues has been the recurrence of a common question in response to the inquiry: "what do *you mean* by scenarios?"

In order to answer this question, a complete review of scenarios is required. Some contextualisation is also called for. Discovering FS in 1998 was a life-changing event: it justified an interest in big pictures, and a forward orientation. Since that time, and with these two interests affirmed, this author has become steeped in the Integral Theory of Ken Wilber, Jean Gebser and Clare Graves.² Keen to combine the big picture integral theories with foresight knowledge and practice, study at the Australian Foresight Institute was ideally suited.³ Through these interests a meta-map of scenarios has begun to emerge.

This paper, and a planned two to follow, will provide a first blush answer to the question of what I mean by scenarios. This paper will focus on a review of scenarios, introducing elements of a critical integral theory, specifically a deeper understanding of worldviews, to provide the framework of analysis for identifying what is required to achieve high quality in scenario development processes. The second paper will introduce integral theory in more depth, and a generic approach to scenarios that will frame the offerings of the third paper. The third paper will offer suggestions for the method development and practice of integral scenarios, explicitly including the aspects of high quality scenarios identified herein.

It is important to note that while the author has been involved in two scenario exercises for government agencies in Australia, and numerous experiential learning scenario exercises, the author is no expert. These essays are offered as a creative exploration, inviting dialogue and hopefully stimulating insights into the nature and practice of scenarios.

This series of papers is written for futurists who already have an understanding of and perhaps use scenarios. The full history, origins and detailed variations in scenarios, being aptly covered elsewhere and likely familiar to the reader, will therefore not be covered. The focus instead, is on outlining another perspective on scenarios, under the mantle of creative exploration.

Situating Scenarios

Definitions of scenarios can be found a plenty. Agreement on the other hand, between theorists, practitioners and end-users, varies from context to context. Considered by some as "methodological chaos," no consistent definition of scenarios seems to be appropriate or accurate across the breadth of situations that scenarios are used in.⁴ Contextualising scenarios therefore, is essential to arriving at a working understanding of scenarios for this series of papers.

Wendell Bell's statement at the end of volume one of his magnum opus, the Foundations of Futures Studies, that "the scenario gives methodological unity to futures studies" stands as a clear testament to the importance of scenarios for FS.⁵ Bell goes on to contend that "the end product of all the methods of futures research is basically the same: a scenario."⁶ In reviewing Slaughter's (ed) Knowledge Base of Futures Studies however, the diversity of methods, approaches and uses of FS would appear to defy Bell's proclamation.⁷ Was Bell being a reductionist with a new twist? Was he unduly beholden to scenarios? Did he not decry the criticisms of the popularisation of scenarios and the watering down of its potential and integrity according to some futurists? Or did he celebrate it, finding justification for his stance? Did Bell have a much broader conception of scenarios in mind?

A support for Bell's position is found in the field of psychology. Referred to by various names, the study of human decision making processes includes the common practice of 'scenario-based-reasoning.' As one of many decision-making models humans use, it is therefore understandable that in collective decision making activities, the same reasoning processes have become formalised. The breadth of scenario methods reflect the individual differences of practice, their character moulded by situational experience, with adjustments made to fit contextual realities. This common psychological basis also illuminates the wide uptake of scenarios as a method for informing decision making with a view to the future. But scenario-based-reasoning is only one decision making method among many. The fact that numerous fields investigate and keep discovering or generating other decision making methods, frameworks and approaches should remind FS practitioners that there is more in heaven and earth than dreamt of as scenarios.

In this context, scenarios can be developed to satisfy any situation or circumstance. They can be engineered so as to deliver the desired subjective outcome of the designer rather than provide a rigorous and disciplined examination of relevant factors that will lead to a relatively objective result. In some disciplines, this is referred to as 'situating the appreciation.'

Scenarios on the one hand then, could be seen as a general label for any hypothetical conception of the future – whether possible, probable, or preferable. Yet as only one suite of tools in the 'infinite toolkit' of FS, despite of, or because of, its unique breadth and depth, a distinct foundation of knowledge has accrued, distinguishing it from other approaches. There are dozens of books and hundreds of articles across dozens of journals on what scenarios are, different methods for developing them and guides concerning their practice. While the theoretical justifications of scenario practice have been developed largely as a process of 'reverse engineering,' sound, if regularly evolving, principles and theories have been proposed for legitimising scenarios. The gradual coalescing of scenario methodological approaches, while varied, question the usefulness of

Bell’s position in the face of numerous well developed and developing methods in FS which are built on distinctly different theoretical foundations and insights.

Treating every FS output as a scenario then, seems counter productive, as it is so broad as to be meaningless. Unless of course, the intent is in conveying the nature of the forward view as being an open space, where alternatives abound, predictions quickly become irrelevant and hypothetical descriptions are the norm. Perhaps this is more aptly describing the current nature of the subject of study in the field of FS itself, rather than one of its methods. Focusing on the method and outcomes of scenario development processes however, while still requiring an extremely broad horizon to embrace the many possible variations, is slightly more contained. But just what is meant by this more bounded definition of scenarios? How can scenarios be characterised so they can be assessed, developed and practiced with a view to quality outcomes?

Typologies of Scenarios

Given the diversity of scenario methods in practice, creating an overview of scenarios continues to prove problematic. Recent efforts, however, have achieved more reach, and thus are of more value in considering what scenarios are. They also provide the foundation for beginning to assess scenarios as a methodological tradition within FS with a view to understanding quality approaches.

A recent typology of scenarios by van Notten et al, was developed from an extensive literature review and a retrospective classification of scenario development processes employed.⁸ Covering more of the current variety of scenario methods and features of the scenarios produced than any previous typology, it is easily the most sophisticated effort available. Recognising the definitional difficulty of scenarios as a methodological practice, van Notten et al used the following broad working definition for the typology, reminiscent unfortunately of the field of FS as a whole: "scenarios are descriptions of possible futures that reflect different perspectives on the past, present and future."⁹

Overarching Themes	Scenario	Characteristics
A. Project goal: exploration vs decision support	I	Inclusion of norms?: descriptive vs normative
	II	Vantage point: forecasting vs backcasting
	III	Subject: issue-based, area-based, institution-based
	IV	Time scale: long term vs short term
	V	Spatial scale: global/supranational vs national/local
B. Process design: intuitive vs formal	VI	Data: qualitative vs quantitative
	VII	Method of data collection: participatory vs desk research
	VIII	Resources: extensive vs limited
	IX	Institutional conditions: open vs constrained
C. Scenario context: complex vs simple	X	Temporal nature: claim vs snapshot
	XI	Variables: heterogeneous vs homogenous
	XII	Dynamics: peripheral vs trend
	XIII	Level of deviation: alternative vs conventional
	XIV	Level of integration: high vs low

Figure 1: van Notten et al's typology of scenarios.¹⁰

Van Notten et al attempted, and for all intents and purposes succeeded, in updating existing scenario typologies, providing a robust, flexible and where relevant, more comprehensive grasp of the differences and similarities of scenario practice. Several understandable omissions from their typology however, pose problems for its use. The clarification of the type of purpose has collapsed

the richness of previous typologies into an undue emphasis on the externally observable features of scenarios. This is instead of, say, accommodating or expanding previous efforts to more adequately account for the influence of the context of the scenario development process itself. As a result, this absence leads to a difficulty for the typology to be used consistently as a framework for facilitating the judgement of the quality of scenario development processes and outcomes. Quality here includes conceptions of the scenario development processes' contextual influences and the relevance of the approach and outcomes.

Given the contested nature of what scenarios are, it is possible that these crucial aspects of analysing scenarios were intentionally left out. Perhaps this is to allow for a common understanding of the key features of scenarios to develop within the FS and scenario method discourses from the 'ground-up,' as it were. In turn these shared meanings might lead to more widely accepted analyses of the criteria of quality in scenario development processes and outcomes. In the process, this would hopefully situate different types of scenarios as more suited to different purposes and contexts. Which, to date, is a gaggle of contested contentions and justifications.

This bottom up approach reflects the lack of an accepted typology of method, and is evidenced by the mixing of method features, output design features and operational constraints within the van Notten et al typology. While each of these categories of information is important, they seem, to this author at least, to require different assessments depending on the purpose of the classification. In addition, as a general typology attempting to cover methodological aspects, it doesn't invite access to the deeper methodological influences, or their theoretical foundations, involved in various scenario approaches.

Two other typologies that do address the purpose aspect of scenarios are those of van der Heijden, and Heugen and van Oosterhout. As Figure 3 below shows, the two typologies, combined together, align in general terms. The real differences between the author's positions, has to do with expositions about the contextual relevance of each type of scenario purpose, and thus the quality criteria for scenarios.

		Thinking (opening up)		Action (closure)	
		Cartesian		Non- Cartesian	
Content (one-off)	Normative Involvement	Active	<i>Monte Christo</i> <i>Making Sense</i>	<i>Enterprise</i> <i>Optimal strategy</i>	
		Passive	<i>Armchair</i> <i>Anticipation</i>	<i>Monte Carlo</i> <i>Adaptive Learning</i>	

Figure 2: Two scenario purpose typologies combined.¹¹

Combining the common framework of the two purpose typologies with van Notten et al's more feature descriptive typology, seems necessary to at least inform the basis of a quality assessment of a scenario development process, its outcomes and the methods used. This basis however, only helps to order the identification and comparison of scenarios, but says little about common quality

criteria. A more sophisticated approach to quality assessment is still required. The approach needs to not only identify what scenarios are, but provide the criteria for critically reviewing and developing the theory and methods underpinning scenario development processes.

Worldviews & Discourses

From early in the practice of scenarios it was recognised that one common purpose they needed to serve was accessing and opening up, and possibly changing, the worldviews of the people the scenarios were created by and for. Pierre Wack contends that "The single most important aim of scenario planning is to challenge the assumptions of decision makers about how the world works and compel them to change their image of reality – sometimes resulting in revolutionary transformation."¹² This is the 'thinking'-'Cartesian' dimension presented in Figure 3. Either by designed objective, or as a functional necessity of creating valuable scenarios, or because it was required to achieve benefits from the scenarios in general, worldview changes, by whatever name, have become a central aspect of scenarios. Even when a scenario may be classified with a purpose of 'action'-'non-Cartesian,' the inherent requirement of participants and audiences to openly consider multiple possibilities, based on different assumptions used to interpret the past and present and thus potentials, requires a shift from a fixed worldview, to at least an openness to consider different worldviews.

There are, however, some big question marks underlying the term 'worldview.' Just what is meant by worldview? How different, or how open, does one's worldview need to be? Just how different are the worldviews that exist or might exist? And, therefore, how many worldviews do the scenarios need to incorporate? Do these degrees of worldview difference inform relevant, quality scenarios, and if so, how?

Worldviews appear to have been brought into the scenario discourse out of a need to define the degrees of change involved. In terms of quality, a common concern evidenced in the scenarios literature has been to balance the degree of *change* explored with the *relevance* of the scenarios to their context of development. This is so that the participants and audience of the scenarios can follow the different scenario logics and hopefully recognise their plausibility and relevance, and further, possibly encourage their 'ownership' of them. This balancing act segways into the 'art' side of scenario development expertise, and goes to the heart of the quality of scenarios.

Quality scenarios therefore appear to need to meet at least two criteria. Firstly, the degree of relevance and accessibility for the end users of the scenarios. This is one of the most common focuses of comments on the quality of scenarios, and to aid this conception, the use of Inayatullah's futures triangle is helpful.¹³ Here, the relevance can be characterised as the 'weight' of the past that curtails the second quality criteria. Secondly, the degree of plausible differentiation that examples realistic potentialities that may need to be accounted for, and, also allows for a multiplicity of interpretations of the past and present. This criterion can be seen as the 'pull' of the future within the scenario development process. For completeness, the 'push' from the present would likely include aspects of the focus of the scenarios and the reasons for its inception – broadly, its originating context.

These criteria contributing to the assessment of scenario quality then, suggest as a maxim, that the higher the degree of change that can be incorporated and conveyed as relevant to the originating context within a scenario set, the better. This takes the common use of Ashby's Law of requisite Variety in the scenario discourse to another level of application.¹⁴

The types of change are thus highlighted as of central importance. This is not so much about the *rate* of, say, technological change incorporated, nor the *scope* of, say, a systemic change considered. These are important, and accordingly are well addressed in scenario literature. Types of change however, in relationship to worldviews, is more about the conceptual distance between a scenario's logic and the original 'mindset' of the participants and/or audience of the scenarios. Generally, within the FS scenario literature, different worldviews imply the identification of divergent assumptions and causal relationships between the variables contained in the scenario logics. It is the balance of these types of change with relevance to context that has understandably been at the heart of quality assessment and management in scenario development processes.

Recognising the importance of these differences, Richard Slaughter in *Futures Beyond Dystopia*, contends that they are mostly explored and applied in a highly limited fashion.¹⁵ Limited, in comparison to the diversity of worldviews that are actually held by people, and furthermore, are also of direct relevance to many scenario development processes. Slaughter bases his critique on insights provided by critical reasoning in general, and the social construction of reality in particular. These lead Slaughter to observe that scenarios, as commonly conceived, focus almost exclusively on external, empirically based observations of reality that take the worldview of the observer for granted. These characteristics can be taken as evident of a particular worldview itself. A worldview that, in recent and contemporary FS practice, is most often held in an unexamined manner. It carries forward, from the days when forecasting was ascendant, a noble regard for the self-neutrality of objectivism and, in essence, is a positivistic enslavement to the myth of the given. In short, this worldview of 'rational-instrumentality' as it is sometimes called in integral theory, is operating blind to the differences in worldviews that actually exist. It therefore forecloses vast differences in types of change. As a result, many potential futures that may be valuably conceived within scenario development processes are excluded, and the quality of the scenarios is demonstrably diminished.

This begs questioning then, about what the significance is of the differences in worldview that are already recognised by the worldview of 'rational-instrumentality'? What kinds of definitions are required to distinguish between what is commonly meant by worldview, and the critique provided by Slaughter?

One approach suggested by integral theory, and implicit in Slaughter's critique, is between breadth and depth, or horizontal and vertical conceptions of worldview differences. The origins and import of this distinction have been covered elsewhere by Slaughter, Voros and others, and will be covered more fully in the second paper in this series.¹⁶ For now however, the key insight is that the commonly conceived differences in worldview, are like shifting between different discourses, and/or perspectives on any particular subject of focus, at *only one level*. This is the breadth. The depth involves recognising qualitatively *different levels of reality*, or distinct phenomenological spaces, within which all the breadth differences are reconceived. This identifies a much more dramatic difference than breadth conceptions. It would be more helpful therefore, to identify the breadth in 'mind-sets' as different discourses, and the depth of 'mind-sets' as actual worldview differences.

In analysing scenarios then, the quality maxim involving change or difference of worldview, would need to account for the degrees of relevant depth of worldviews and breadth of discourses evidenced. To be clear, the maxim is constrained by an interpretation of the degree of breadth and depth relevant to the context and purpose of the scenarios.

Given that to some degree, different discourses are already addressed within the scenario discourse, what seems needed is a closer examination of the impact of different levels of worldviews on scenario development processes, and, consequentially, their quality assessment criteria

Scenario Worldviews

One of the first things that stand out in light of Slaughter's critique is that different worldviews would likely understand and use scenarios in substantially varied ways. At the very least, different worldviews would highlight the importance of different sets of discourses to be included in the process of developing divergence in scenario sets.

One approach to conceiving of different worldviews, and their relationship to foresight, has been recently proposed by Peter Hayward.¹⁷ Drawing on the insights provided by Jean Gebser's integral theory analysis of the 'structures of consciousness,' Hayward identifies eight different 'worldviews of foresight.' For each, Hayward outlines their developmental relationship, conceptions of time, and complexity and style of reasoning as evidenced in their engagement with forward views. Of the eight, five seem to have some relevance to scenario methods to date. The exclusion of the other three is based on a feature of the character of thinking required to perceive and use a scenario approach to engage with the forward view. It is only with the 'progressive foresight' worldview that a rational, often scientific approach to identifying consequences and alternative possibilities emerges. This recognition of alternatives is central to the scenario conception and all its methods of development.

Worldview	Origin	Characteristics
Progressive Foresight	The Western Enlightenment	<ul style="list-style-type: none"> • Consequence assessment based on scientific principles; • Strategy based on the lessons of history; • Positivistic, instrumentalist; and, • Normative, utopian, and naïvely optimistic, believing in the inevitable 'progress' of humanity.
Political Foresight	Beginning around World War Two	<ul style="list-style-type: none"> • Social structural and functional changes correlated with technical/scientific change; • World-centric, or global outlook with strategic focus on national planning and action for the controlled management of economic progress, political/military power, and social stability; and, • Recognition of dystopian futures lends more pragmatism to optimism in normative conceptions of progress through instrumental change.
Critical Foresight	Emerging over the past three decades	<ul style="list-style-type: none"> • Questions, or dualistically opposes the assumptions of scientifically based progress and control of the Political Foresight worldview; • Replaces the forecasting and naïvely value neutral forward views with participatory action learning; • Normative scenarios are used to justify alternative preferable futures, where progress is about recovery of meaning rather than technical change per-se; • Strategy is based on critique and reformulation of social-political discourse to enable renewal and forward options based on meaning, inspiration and hope.
Consensus Foresight	Emerging over the past decade	<ul style="list-style-type: none"> • Focus on relational connections, based on a search for, and championing of, commonalities between people, communities and nations; • Strategy is based on what serves the collective good, both instrumental and meaning based, of humanity and its many different groups; and, • Normative scenarios are used to empower collectives towards coordinated action for creating positive, not utopian, futures.
Integral Foresight	Emerging with the 21 st Century	<ul style="list-style-type: none"> • An intensification of consciousness resulting in an awareness of, and impulse to balance, the previous, constituent, worldviews. Including those preceding the one's outlined here; • The use of this transparency of worldviews to facilitate their integration, and as a consequence, the emergence of new characteristics of competence – yet to be fully discovered.

Figure 3: Summary presentation of Hayward's worldviews of foresight.¹⁸

A key feature of the worldviews of foresight conception is its developmental nature. With the emergence of each new worldview of foresight, much is developmentally retained, while excess or limitation may be transcended by characteristics of the succeeding worldview. Thus in Figure 3 above, many of the features of, say, the progressive foresight worldview are incorporated within the political foresight worldview, unless explicitly countered, altered or contained by its new characteristics.

Given the quite distinct differences between how each worldview of foresight approaches the forward view, and hence any method used for engaging it, it is not surprising that there have been many developments in scenario methods over the past half century. However, a lot of the diversity of scenario methods can be seen as breadth within particular worldviews and thus is of a categorically lower degree of variation than those separated by the depth of worldview conceiving them.

Another key insight offered by Hayward's analysis, is that each of these worldview-based approaches to using scenarios adds value. They are appropriate and useful given the perceived context. The import is that the competencies developed by each worldview of foresight, needs to be transcended in terms of its exclusive focus, yet included in terms of its enduring competencies. Given this integral foresight worldview approach, each worldview's competencies can be seen to feed directly into quality criteria, given a contextually bound relevance assessment, of any scenario development processes. This insight leads to another maxim of scenario quality. Scenarios should include as many of the strengths, and as few of the weaknesses, of each worldview's approach to scenarios as possible, and relevant to the contextualised purpose of the scenario development process. A deeper appreciation of each of the strengths and weaknesses of each worldview-iteration of scenarios in practice is, therefore, what is required next.

Before moving into an analysis of the 'worldviews of scenarios' in practice it would be helpful to summarise the quality criteria that an integral understanding of worldviews brings to scenarios. First is the inclusion of different worldviews, and discourses, in the scenario sets. Second is the inclusion of different worldview approaches to methods of scenario generation. Throughout, the balancing constraint of relevance to the originating context is paramount.

Progressive Foresight Scenarios

The progressive foresight worldview approach to scenarios was, as indicated before, the first worldview to formalise a scenario method. Remarkably simple, the approach opened up the realm of alternatives in the forward view and called for a clear-eyed assessment of the consequences of each – in the future and in significance for present decisions. Based on a scientific instrumental rationality approach, scenarios emerged in three generic forums. In simple terms an optimistic, pessimistic and business as usual (BAU) conception of future potentialities. These three options represent what can be called 'single point forecasts' as they are based on the projection of often individual, taken-as-given trends, cast within the mould of assumptions contributing to the belief in the optimistic inevitability of technical progress. Another way of classifying this worldview's focus, is through Habermas' three human interests.¹⁹ The progressive foresight worldview is mostly concerned with the technical interest.

In large measure, this forecasting approach to scenarios is still the dominant and most common FS approach, used as it is in incredibly diverse fields of study around the world. Its value lays in its usefulness for short term, simple issue conceptions. Its weaknesses however, are legendary as books like *Megamistakes* make clear.²⁰ *Megamistakes*, in an effort to provide more sane approaches to forecasting, catalogues some of the more hilarious, and disquieting forecasting

failures, given the advantage of hindsight. The essence of the critique of the progressive foresight worldview, and its method of choice, forecasting, is that the causal influences on the future are far more complex than single point forecasts allow for. Even when complex modelling is involved, not every relevant influence is quantifiable. The underlying worldview assumptions also fail to account for truly dystopian conceptions. Instead, a technological wonderland often seduces the progressive foresight worldview into delusionally optimistic scenarios. With a strong reliance on a taken-as-given-history as a map of the future, forecast based scenarios, while valuably opening up consequence and option assessment, are blind to a realistic appreciation of the chaotic nature of the child of change and its many parents.

To offer but one example, consider the 'picturephone.' In development since the 1930s, a commercial offering finally became available in the 1960s. The forecast scenarios were focused on how quickly and widely the 'picturephone' would secure uptake in different markets and not about whether it would be taken up at all. After decades of intense marketing efforts and product variations little uptake has occurred. Despite this, the picturephone, by whatever name and packaging, still features prominently in science fiction films, and in the planning of technological products yet to take their apparently predestined place as a mass consumer product.²¹

Political Foresight Scenarios

Scenarios have received their greatest uptake, and methodological expansion, at the hands of the political foresight worldview. The majority of the FS and scenario literature is characterised by debates between, and methodological developments by, practitioners operating from this worldview. While continuing the positivist, quantitative focus of progressive foresight, political foresight scenarios are more pragmatic, generally account for a wider range of alternative futures, and involve a more realistic grappling with the complexity of change, its 'bifurcations,' reversals, and 'wildcard' developments. With political foresight the range of archetypal scenarios is often reconceptualized as something like transformation or aspiration for up, collapse or worst case for down, status quo or most probable for BAU. The range also often expands to include the likes of a return or renewal scenario, where an imagined ideal past is recapitulated, and other 'outliers' that while less probable are strategically important to consider. These re-conceptions of the generic scenario types reflect the recognition of a broader range of variables, and more of a systems focus within the scenario logics. Despite these changes, the political foresight worldview is still mostly concerned with Habermas' technical human interest.

Within FS, and its key funding clients of commercial enterprise and governmental organisations, the political foresight approach to scenarios is currently the mainstay. There are many different approaches to scenarios within this worldview. As two staunchly differentiated camps, consider the French 'La Prospective' approach, well exemplified by Michel Godet in his book *Creating Futures: Scenario Planning as a Strategic Management Tool*,²² and the nominally American 'intuitive' approach, well exemplified by Peter Schwartz's book *The Art of The Long View*.²³ The common value of political scenarios involves a more realistic perception of the uncertainty of the future, recognition that change has manifold and interconnected effects on human social, economic, political and other systems, and the importance of fostering 'strategic conversations' through scenario use.²⁴

The main limitation that each of these different approaches, and numerous others, within the political foresight worldview have in common is their tendency not to question the base worldview assumptions of progress or bust, technological optimism, and the end goal of control of the future. To be fair, 'values' and 'assumptions' are often questioned in these approaches, but they are strictly surface in nature.²⁵ They foreclose any deeper critique of the nature and intention of the power, the

power holders, and their interests, in commissioning the scenario development processes in the first place. In short they lack an open consideration of an 'ideological dimension.'²⁶ Hence, from the political foresight worldview, morally questionable book titles such as *Competing For The Future* arise.²⁷ The author's are not talking about how different groups of people are fighting for their right to self determination around the world, but rather how corporations may continue unquestioned to secure larger market shares, commercial dominance, political influence and sustained growth – without concern for the externalised consequences.

By and large, the methods work. This is their key value, along with the contingent systematic grasp of change, recognition of infinite potential, identifying and understanding the difference between possible, probable and preferable futures, and an inherent striving for efficiency in effectiveness.

Critical Foresight Scenarios

In dualistic opposition to political scenarios and the political foresight worldview in general, is critical foresight. The critical worldview finds the notions of progress and positivism inherently problematic in that they leave the world meaningless, fragmented and in a competitive frame. The critical approach in contrast, seeks to uncover, question and renew the symbolic foundations of social reality and its political discourses. The emphasis here is on qualitative balance with quantitative approaches, collectively developing futures that are open, realistic, and yet aligned with emancipatory human ideals that rise above competition, and provide grounds for the continual reinterpretation of social-political structures. The critical foresight worldview is mostly focused on Habermas' emancipatory interest.

Opening up a firmer access to possible futures, critical scenarios are often more explorative, and then normative, than pragmatic decision-support related, as with political foresight. The key insight surrounding the balance of quantitative and qualitative aspects of scenarios with the critical foresight worldview is that qualitative inclusion also brings to the table questioning of the worldview held by the participant-developers and users of the scenarios. Here the focus is on subjective orientated, or depth, understanding of the present more than on the surface empirical orientation of previous foresight worldviews.

Because of the depth and problematising focuses of critical foresight, it is less likely to be used to construct new approaches scenarios per se, although it occasionally is, but rather to add methodological transparency and new theoretical grounding to the scenario generation process itself. The new groundings focus on 'values centred' and 'constructivist' based justifications and process insights in scenario development processes.²⁸ That said, there are new methods that provide entirely different routes to scenario generation than previously conceived of through the political foresight worldview. These include, for example, 'layered futures work' which is most well known through Inayatullah's Causal Layered Analysis.²⁹

The strengths of critical scenarios, acting as a corrective action to the political foresight worldview approach, also leads to its weaknesses. In making the future problematic, there is a risk of overlooking the quantitative and pragmatic requirements of scenarios in order for them to have relevance and value for their users. Here, idealistic normative scenarios, while appealing, can be flawed by a 'fantasia' of subjective reverie, in contrast to the political foresight's trap of being beholden to a 'flatland' of empirical surfaces. In addition while critical scenarios bring intuitive approaches to new levels, often little attention "is paid to the specific problems of integrating scientific knowledge with intuitive knowledge."³⁰ While the re-negotiation of meaning in FS and scenarios reflects an empowering and more nuanced approach to scenarios of the future, there is

always the danger of getting stuck in oppositional politics, and oppositional methodologies, instead of moving forward to create new pathways into attractive futures.

Consensus Foresight Scenarios

While Hayward proposes that the consensus foresight worldview is yet to be fully seen in action, there are some emerging shoots of its promise. At the very least, its theoretical foundations have been laid down to a certain extent, and methodological approaches leveraging its insights, or simply its credibility appeals, have been proposed and in some cases put into action. The consensus approach to scenarios places its emphasis on the collective relational aspects of the methodology. Citing its ability to use participatory action learning approaches often championed by the critical foresight worldview, and to enable a balancing of the previously competing interests and underlying values issues involved, consensus scenarios are concerned with synthesising divergent interests, creating shared understanding, and furthering ideals like equality, sustainability, and empowerment. The primary focus for the consensus foresight worldview is Habermas' pragmatic interest.

Possibly the most articulate exposition of a consensus foresight approach to scenarios is Jay Ogilvy's book *Creating Better Futures*.³¹ As an extended justification for scenarios from a consensus foresight worldview, it can serve as a guide to the possible nature of a consensus approach, as well as highlight its weaknesses as currently evident in its emerging form. To be fair, it is likely that as the consensus worldview becomes more prominent in FS that many of these issues may be overcome. Only at that stage then, will its real strengths and weaknesses start to become more obvious.

The key flaw in Ogilvy's deft presentation of many complex philosophical and theoretical issues involved in scenarios is that he offers no renewal of the scenario method itself. Ogilvy delicately and clearly separates the dominant worldviews of western culture, and to some degree their influences within FS (in the sense of being broader than just American and instead including European, Australian etc – although notably not non-western!), and identifies in essence the progressive, and critical foresight worldviews. In the process he formulates a new basis for justifying participatory community scenario development approaches from what he calls a relational worldview. It doesn't, however, do much good. There are two reasons why. First the renewed foundational justification for scenarios fails to be translated into a reconceptualisation of the method and practice of scenario development processes themselves. The method is left the same, despite the vitally important critical update. Second, the scenario method that is canvassed is one issuing from the political foresight worldview. Thus the renewal of understanding is regressively tied to an older method, and in the process justifying the excesses and limitations of the political foresight worldview. A support that will likely dismay many critical foresight proponents, and frustrate other, possibly more well developed consensus foresight worldview based efforts.

Ogilvy goes to superb lengths to warn scenario practitioners of the dangers of falling into the extremes of either the progressive or political foresight worldview's classic limitations of, respectively, collectivism and individualism, fundamentalist like absolutisms or nihilist relativism, and of hierarchy or anarchy. The second key problem with Ogilvy's approach however, is that he falls foul of his own warnings. He comes down heavily, by the end of the book, on the side of collectivism, heterarchy, and the nihilist and paralysing relativism which unfortunately sneaks in to his exposition of the relational worldview. This is a tough criticism and one that requires further explanation.

Championing insights from the critical foresight worldview, Ogilvy valuably emphasises the basis of futures studies in the humanities, in values, being aware of worldview differences and that there

is more than one right or best way to view the future and how we might prefer to live in the future. Unfortunately Ogilvy then hands these issues over to two principle ways forward. First a nearly wholesale acceptance of the economic era, as he defines it, where money comes close to equalling democracy. He acknowledges limits to the marketplace, but these are to be remedied apparently by re-designed political institutions, which will suddenly take care of the basic national issues that need to apply across the board like education, healthcare and communications infrastructure. To the rest, privatisation is offered up as the most advanced selection method currently available.

Second, a vague notion of 'some' as the new conception of collectives and accepting ambiguity in the scenario generation process are, in themselves fine. The problem, however, is that in Ogilvy's more detailed explanations these breathlessly equate grass-roots with corporate entities as groups of 'some' that are the newly empowered agenic players in the 'new economic game.' These 'equal' interest-based groups of 'some' are meant to balance the agency and communion extremes and equate to a third way in FS, the relational or consensus worldview, reinvigorated with meaning. Obscuring the reality of economic influence in deciding democracies pathway into the future in the western world, real democracy will apparently be at work in the community of 'some' involved in each scenario development process, and the aggregate influence of these on a societies direction. Using the standard political foresight methodological framework, with a surface wash of critical and consensus justification, these collectives of some are expected to arrive at a high order synthesis decision on the normative path of goodness and a better way forward. This leaves behind real science, the true gift of progressive and political worldviews, and to large measure replaces it with the same extreme plurality that he decries as nihilistically paralysing in the critical worldview. A new worldview of justification yes, but not a new approach to the scenario method, nor a realistic synthesis let alone the integration that Ogilvy claims can actually sort out a balance of the value based worldview differences of both surface and depth and arrive at a new level of options towards good, better and best alternatives.

The normatives Ogilvy is striving for are likely to only occur after the integration of hierarchy and heterarchy, the balancing of individual and collective, dynamic inclusion of both empirical observation and inter-subjective, ontological structural observation and grounded interpretation. These tasks seem beyond the reach of the consensus worldview, more concerned as it may justifiably be with a reasonable synthesis of divergent interests, rather than a whole new order of integration and transparency.

Towards Integral Foresight Scenarios

To date, there is little evidence of integral approaches to scenario development. There are however, the varied competencies of the previous worldviews of scenarios to draw on. In addition, the scenario quality criteria outlined herein provide the basis from which an integral approach may be conceptualised. Without the clear emergence of integral scenarios however, it is not possible to yet fully critique the approach, in terms that is, of outlining the next developmental iterative renewal of scenarios, whatever that may be. It is reasonable to conclude that such an effort may be fruitless until both the consensus and integral worldviews have made good on their potential for scenario development processes and FS in general.

The core competencies emerging with each worldview of scenarios and the quality criteria so far identified, as outlined in Figure 4, will necessarily inform the basis of any integral scenario approach. As Stephen Millett contends "the next generation of scenario tools should not only combine previous methods, but also actually blend them into a more comprehensive methodology."³² Millett highlights the two requirements of any integral scenario methodology.

First the inclusion of previous competencies, and second the transcendence of them through an emergent reformulation of the method itself.

Worldviews	Competencies
Progressive Foresight	Technical interest, external trend focus, excels at progress forecasting and prediction
Political Foresight	Technical interest, external systems focus, excels at decision support
Critical Foresight	Emancipatory interest, internal structures focus, excels at social discourse renewal
Consensus Foresight	Pragmatic interest, collective commonality focus, excels at participatory action learning
Quality Maxim 1	Include as much worldview and discourse variation as possible and relevant to the originating context and purpose of the scenarios
Quality Maxim 2	Include as many different worldview approaches to scenarios as possible and relevant to the originating context and purpose of the scenarios

Figure 4: A summary of scenario worldview competencies and scenario quality criteria.

The integral worldview has, to date, been characterised by its transparency of constituent worldviews, those transcended and included in its own formulation. In addition, the degree of integration, ordering of elements in methodological inclusion and adaptability to various contexts are also of importance when considering scenarios. The import then is that the core competencies from at least each of the worldviews of foresight and scenarios outlined above, with mindful correction of their excesses and/or limitations, and an ability to fulfil the two quality criteria maxims, will be necessary, if not sufficient, for the formulation of integral scenarios. What is needed then is to investigate an integral worldview theory with a view to how it may reinterpret the scenario methods to date, and what alternative approaches might be suggested by its new level of insights. These two goals will be addressed, respectively, in the second and third papers in this series.

Conclusion

While an agreed definition and typology of scenarios is yet to emerge in the field of futures studies – and indeed, may never emerge – there are relatively consistent ways of conceiving scenarios. The approach of identifying scenario methods by worldviews is one aid to this broader grasp of how scenarios differ, and accordingly how their definitions will differ as well. This approach represents more of an inside-out rather than outside-in, or ground-up approach most evident to date. The breadth and depth of scenarios reflects both the different purposes and contexts, and the engagement by different worldviews of foresight with them. An integral foresight worldview seems to hold promise for a more robust conceptualisation of scenarios as a FS method. In order for integral scenarios to be conceived however, both the breadth and depth of scenario developmental processes, as shown in this paper defined by worldviews, needs to be accommodated. One of the core challenges that integral scenarios will face, in addition to providing a robust assessment of scenario theory, methods and practice, is to provide a categorically new approach to designing scenario development processes. A new theoretical foundation needs to be translated into new methodological approaches for integral scenarios to contribute any real value to the scenarios discourse and FS discourse generally.

Notes

¹ Inayatullah (2002) p18.

² For examples of their work, see Wilber (1999), Gebser (1991) and Graves (2005).

³ The AFI website is here: <http://www.swin.edu.au/afi/>

⁴ Martelli (2001).

⁵ Bell (1997) p317.

⁶ Ibid.

⁷ Slaughter (2005).

⁸ van Notten et al (2003).

⁹ van Notten et al (2003) p424.

¹⁰ van Notten et al (2003) p426.

¹¹ Heugens and van Oosterhout (2001) p863 & van der Heijden (2004) p14. I am indebted to Cate Turner, a student at the Australian Foresight institute, for this observation.

¹² Wack, P. Scenarios: the gentle art of re-perceiving, unpublished manuscript, Harvard Business School, cited in Chermack & van der Marwe (2003) p447.

¹³ Inayatullah (2000).

¹⁴ Burt (2003) p1018.

¹⁵ Slaughter (2004) pp102-104.

¹⁶ Slaughter (1999b) and Voros (2001).

¹⁷ Hayward (2005).

¹⁸ Adapted from Hayward (2005).

¹⁹ Habermas cited in Slaughter (1999a) pp216-219.

²⁰ Schnaars (1989).

²¹ Schnaars (1989) pp86-89.

²² Godet (2001).

²³ Schwartz (1991).

²⁴ van der Heijden (1996).

²⁵ For an example see Berkhout & Hertin (2002) p40.

²⁶ Khakee (1999) p234.

²⁷ Hamel & Prahalad (1994).

²⁸ For example, see Chermack & van der Marwe (2003).

²⁹ Inayatullah (1998).

³⁰ Khakee (1999) p234.

³¹ Ogilvy (2002).

³² Millett (2003) p19.

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