INTEGRAL SCENARIO DEVELOPMENT

Introducing an AQAL Root Questions Method

By

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ABSTRACT

Scenario planning is one of the most widespread futures methodologies in use. A generic aim of scenario planning, as with many Futures Studies methodologies, is to broaden and deepen perceptual filters so as to find new and relevant meaning in 'weak signals from the future.' Integral Studies is an emerging field of meta-theory that attempts to meaningfully relate as many disciplines of human knowledge and endeavour as possible. Following Slaughter, Voros and others, many theoretical, methodological and practical insights for Futures Studies and Research can be drawn from the Integral approach. Some of the implications already elucidated are summarised, and then 'Integral root questions' are proposed for relating them to a generic scenario development process. Intended as an introductory exploration into devising an Integral Scenario Development process, this paper is aimed at generating discussion about viable Integral reformulations of Futures Studies methodologies and scenarios in particular.

INTRODUCTION

The introduction of Integral approaches to futures studies was pioneered by Richard Slaughter in the mid 1990s.[1] Important contributions have also been made by Joseph Voros and Mark Edwards.[2] This paper is intended to build on, and further contribute to, their endeavour of creating an Integral Futures.

The main purpose of incorporating Integral insights into Futures Studies (FS) has been to provide a deeper and broader view of the world.[3] It has been argued that the Integral All Quadrant All Level (AQAL) meta-theory framework represents a new macro-history theory that is particularly innovative and grounded in research findings from a multitude of disciplines.[4]

Scenario planning, originally developed in practice, is regarded as a FS methodology.[5] As such it is the most widely known and applied approach to developing forward views in the strategic planning processes of organisations, be they government, corporate or community based.[6]

Generally, scenario planners actively seek to broaden and deepen their client's mental frames of reference to include in their strategic conversation the potential impact of more of the current external environment, their organisations nature and place within it, and the inherent uncertainties involved in considering future operational realities.[7]

This essay is concerned with outlining the common aspects of the scenario planing processes and indicating where inclusion of Integral insights might deliver deeper and broader assessments and provide a sound basis for strategic conversation. In order to facilitate these suggestions, we will start with an overview of Integral Studies (IS) and its relationship with FS to date.

INTEGRAL META-THEORY

The Integral AQAL meta-theory has been developed by Ken Wilber through more than a dozen books over the past three decades.[8] AQAL is short for 'all quadrants, all levels, all lines, all states, all types.'[9] We will unpack what a few of these elements of AQAL mean, and how they can be of value to FS. [10]

Wilber defines Integral as being 'inclusive, balanced, comprehensive.' It can be favourably compared to other methods of knowledge acquisition and organisation, whether mythic, rational-scientific, pluralistic and the like, as they all explicitly exclude other approaches. They are then 'by definition, partial and incomplete,' argues Wilber, and 'although widely accepted and dominant in the world's cultures, tend to generate partial and incomplete analysis and solutions to problems. As such, they appear less efficient, less effective, and less balanced than the Integral approach.'[11]

As a meta-theory, IS proposes a theory of theories. But what are theories again? They are mapping our perspectives on, methods of interacting with, and the explanations for reality, that are developed to make sense of it. Integral theory then, is concerned with 'mapping the maps' of perspectives, methods and explanations used to engage perceived realities.

The Integral approach proceeds by backing up to a level of abstraction where the guiding principles and moments of truth from the major modes of human endeavour and enquiry stand forth in a mutual orientation. Based on the extensive cross-cultural research of others, Wilber draws out the general points of agreement within many major disciplines, the common truths of a field that most of its' practitioners agree on. Calling these 'orientating generalisations' Wilber proceeds by relating them to each other in a meaningful way.[12] To do this, he employees a number of redefined concepts, and adds further creative ones of his own.

The first organising concept, and indeed the foundation concept of IS, is that of 'holons' and 'holarchy.' The term holon was coined by Arthur Koestler in 1964 to refer to anything that is simultaneously a whole and a part: holon = whole/part.[13] Following the logic inherent in this conception, a whole like the letter 'w' is part of the 'whole,' which is a whole word, but can also be part of a sentence, like the whole of this one. This sentence is also a whole, but it is part of this paragraph. This paragraph is also a whole, a whole paragraph, but part of a section or chapter, and so on. Further analysis reveals that because 'w' can be a part of many words, the meaning and use, for example, the pronunciation differences of 'w' in whole and 'w' in word, are different in a manner that indicates the contextual whole shapes the meaning of the part. In Wilber's own words 'the whole, in other words, is more than the sum of its parts, and that whole can influence and determine, in many cases, the function of its parts.'[14]

Wilber's defining assertion regarding holons is that anything humans know can be abstractly conceived of as a holon, which is likely a part of a series of holons, or a holarchy: a natural 'hierarchy' of increasing wholeness.[15] Each Holarchy he maintains, is a self-organising balanced structure, such that if any holon fails to balance its agency-in-communion with similar level holons and/or integration with the 'higher' holon that it is a part of, then it can first be seen as pathological, or simply unhealthy, and in the extreme it will 'die' and be replaced, or everything above it in the holarchy will cease to exist.[16] For example, if a cell gets cancer and ceases to function properly with other cells and the organism it is a part of, then it is highly likely the organism will die.

Lining up as many types of holons and their associated holarchies as he could find in different disciplines, Wilber employs his second core concept: quadrants.

Following the insights of Ferdinand de Saussure, Habermas and others, he draws attention to the embedded linguistic signifiers of all major human languages: the first, second, and third-person pronouns (for example: I, you/we, and it).[17] The quadrants are derived from the observation that 'I' and 'we' are interior dimensions of existence, in singular and then plural forms respectively, and can be observed externally in singular and plural as 'it' and 'its.' Adding 'its,' Wilber generated the quadrants of the AQAL.

Wilber's main assertion concerning the quadrants is that every holon exists in *at least* each of the four dimensions.[18] Every holon is always 'tetra-situated' and can be approached in four fundamentally different epistemological manners (from the perspectives of I, we, it and its) revealing four non-reducible dimensions of phenomenological truth.

The core value of the quadrants is they allowed Wilber to align the different types of truth statements, or orientating generalisations, that the many different disciplines had disclosed: generating a four dimensional holarchy of human reality. Figure 1 presents the quadrants, or dimensions of existence and the types of truth that characterise each perspective.

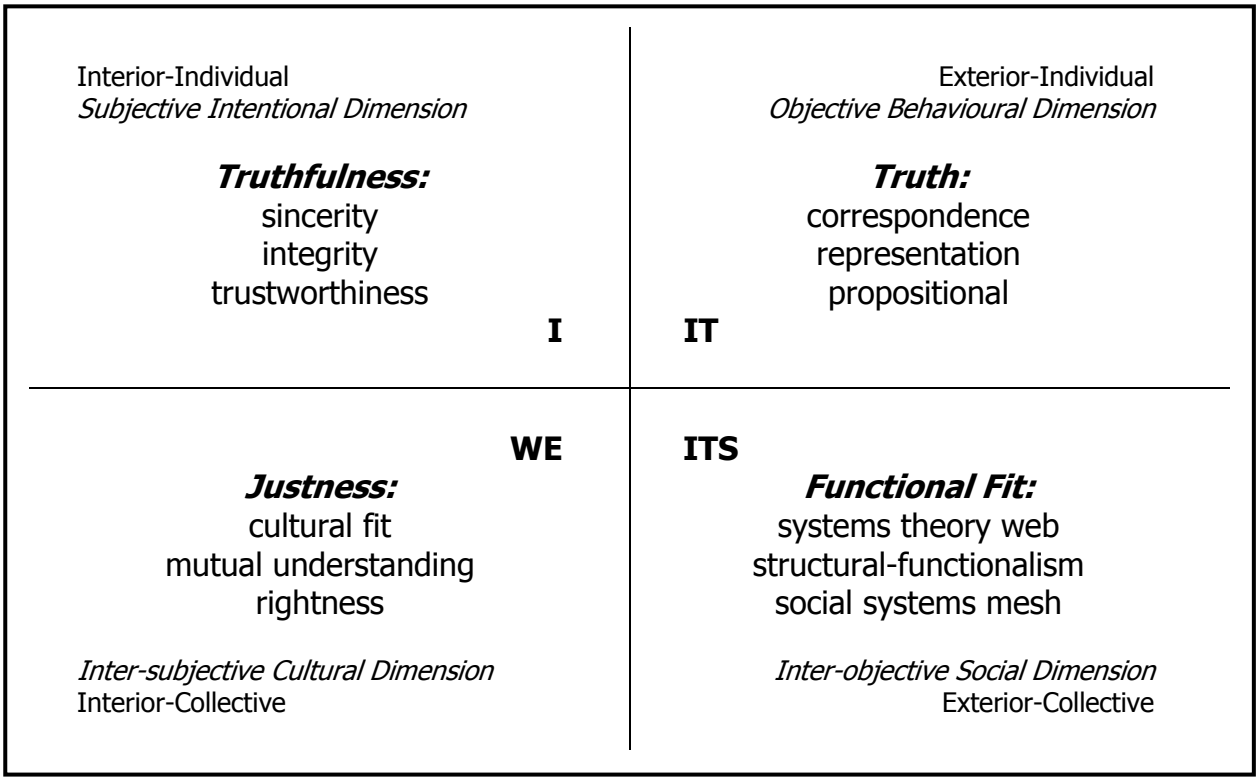

Figure 1 - The Quadrants & Types of Truth[19]

In correlating the different truths within the quadrants, the concept of levels, the next core concept of IS, can be seen. As implied by the nature of holarchies, reality appears to follow a developmental logic. Each new stage, or holon, transcends and includes, as part, the preceding holons, and adds its own new organising regime of wholeness to the holarchy.[20] This unfoldment of holons as holarchy creates an observable pattern of increasing wholeness and complexity that can be tracked in each quadrant: or simply put, levels.

Figure 2 presents a correlation of some of the major levels of human evolution in the quadrants. Important to note is the abstract map nature of this endeavour - it represents the territory but is not purporting to present the territory. Indeed, the human holarchy could be divided into levels of many more magnitudes of detail. A simpler way of dividing the holarchy unfolding vertically would be to refer to matter, body, mind, soul, and spirit.

The next crucial observation to make about the human holarchy presented in Figure 2 is that it is only a tiny part of the story - horizontally speaking - in each of the quadrants. For example, the lower left (LL) quadrant follows the human holarchy of shared cognition's of existence: or culture. One might well ask what about our shared values? They're internally shared by humans, and

certainly part of our culture, but they're not represented here! Indeed, and this brings us to the next organising concept: lines.

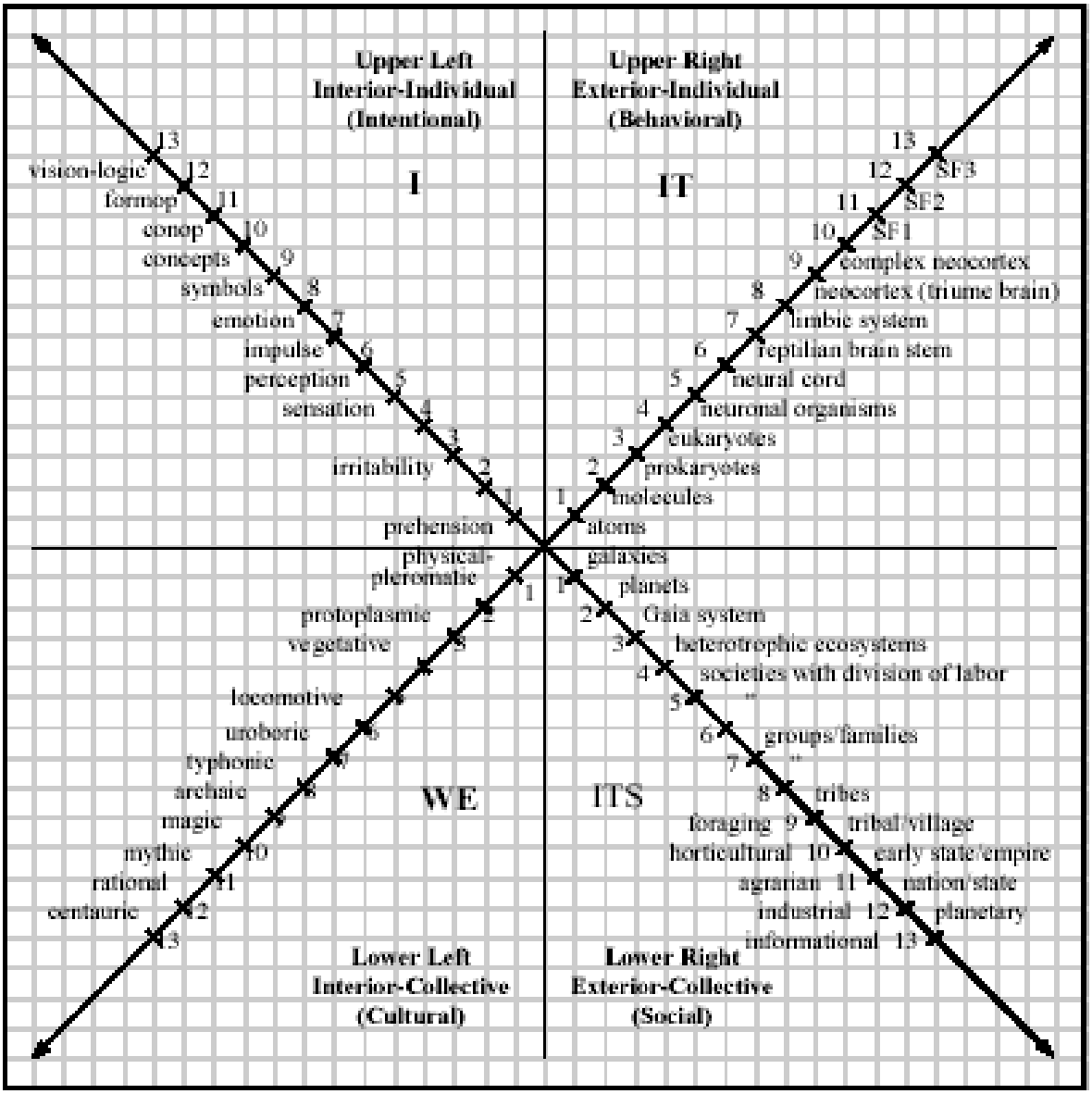

Figure 2 - Four Lines In The Human Holarchy To The Level Of Mind[21]

In each quadrant different lines, or different holarchies are unfolding.[22] For example, in the upper left (UL), the field of psychology has identified around two dozen major lines of development that unfold relatively independently of one another for each human, yet taken as a whole they all reside in first person or internal-individual dimension of reality: part of a compound human. Their correlates in each other quadrant can be observed, but generally speaking they 'reside' and are best understood in truth making terms, by disciplines focused within their quadrant, the UL. This positioning is relative to assuming that he holon of quadratic focus, or what the cross hairs of our zoom lens are focused on, is humanity as a whole. Lines of human development in the UL include, but are not limited to, morals, affects, self-identity, psychosexuality, cognition, creativity, socio-emotional capacity, and motivation.[23] In the lower right quadrant (LR), from the social-systems perspective, lines of technological invention, economic systems and so on can be identified. Similar efforts are possible in the LL and UR.

Taken together these elements provide the foundations of the IS approach known as AQAL meta-theory. Holons, their holarchies, the quadrants they exist in, their levels and differentiating lines form the main elements we will consider within this essay, and refer to as AQAL.

THE EMERGING INTEGRAL FUTURES

In FS, Richard Slaughter first draws on the insight of 'transcending flatland' from Integral AQAL meta-theory. The charge is that modern FS, like many modern disciplines of knowledge enquiry and practice, has unduly emphasised a limited worldview of rationalistic, instrumental and monological perception and validity acceptance. That is, FS has focused on the right hand (RH) quadrants. Seeing only surfaces, objective 'its' of the RH quadrants, Wilber has called a 'flatland' view. The warrant of the flatland charge is the ample proof of many other ways of knowing and being in the world.[24] The call for transcendence concerns the inclusion of the qualitative, subjective (UL) and inter-subjective (LL) dimensions of all experiences in a way that consciously acknowledges these differences and appreciates the significance they have for all human endeavour and knowledge creation.

In a further exposition of the importance of understanding the interpretative framework, or worldview, that is used to conduct activities, an 'Integral cycle of knowledge creation' has been proposed by Mark Edwards, and related to FS by Slaughter.[25] Slaughter argues that elucidating the nature of FS knowledge creation 'will help to substantiate the claim that FS involves disciplined enquiry. It can therefore be taken more seriously and applied to major world problems.'[26]

A way of viewing knowledge creation in FS is depicted in Figure 3. The figure incorporates the elements of IS quadrants, or four fundamental perspectives and their enacted phenomenological dimensions of existence, and the four summary steps in an Integral cycle of FS knowledge creation. Each of the steps is constitutive of the application of a strand of knowledge creation, and represents a post-modern update to the traditional scientific reporting method.[27]

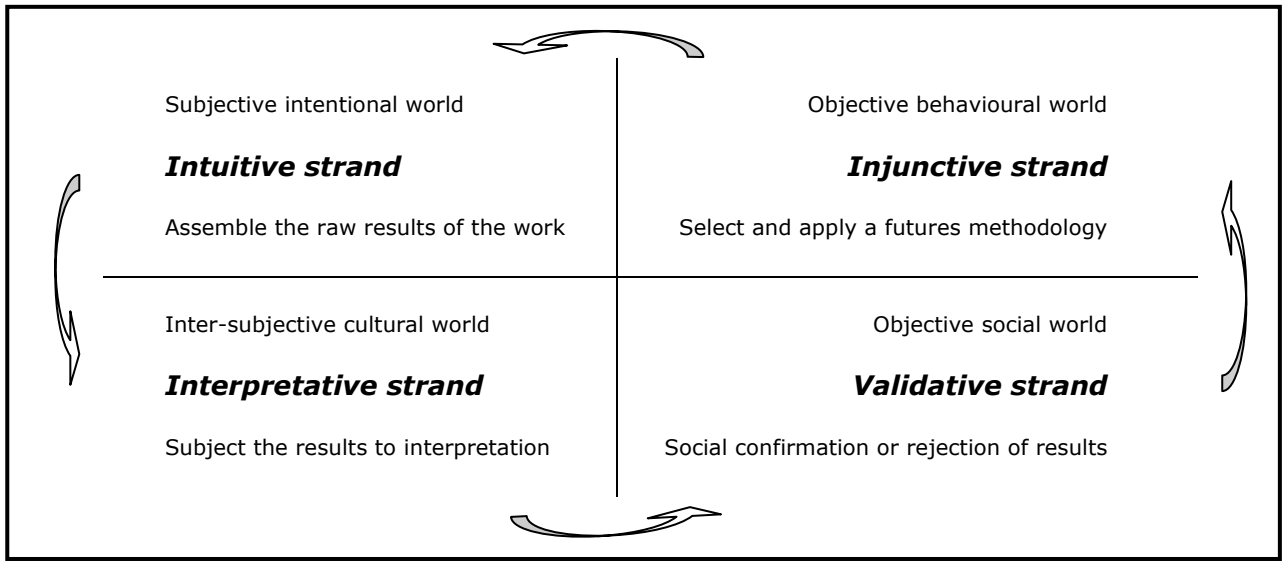

Figure 3 - An Integral Cycle of FS Knowledge Creation[28]

Picking up on the importance of understanding different mental filters and the worldviews they afford, Voros has proposed a 4Q/11L environmental scanning framework.[29] The '4Q' indicates the four quadrants. The '11L' refers to the developmental levels, derived from classifications of

cultural worldviews in the LL. Figure 4 depicts a 4Q/8L framework, to which Voros has added three levels; one at the 'top' of the holarchies called transpersonal, and two at the 'bottom' concerning physical matter, and then biology, before moving up to include the same eight level classification. These eight levels relate to the level of mind (indicated by levels nine through thirteen in Figure 2 and relative to the human holarchy levels being divided as matter, body, mind, soul and spirit),[30] and demonstrate the arbitrary and convenience nature of levels designation.

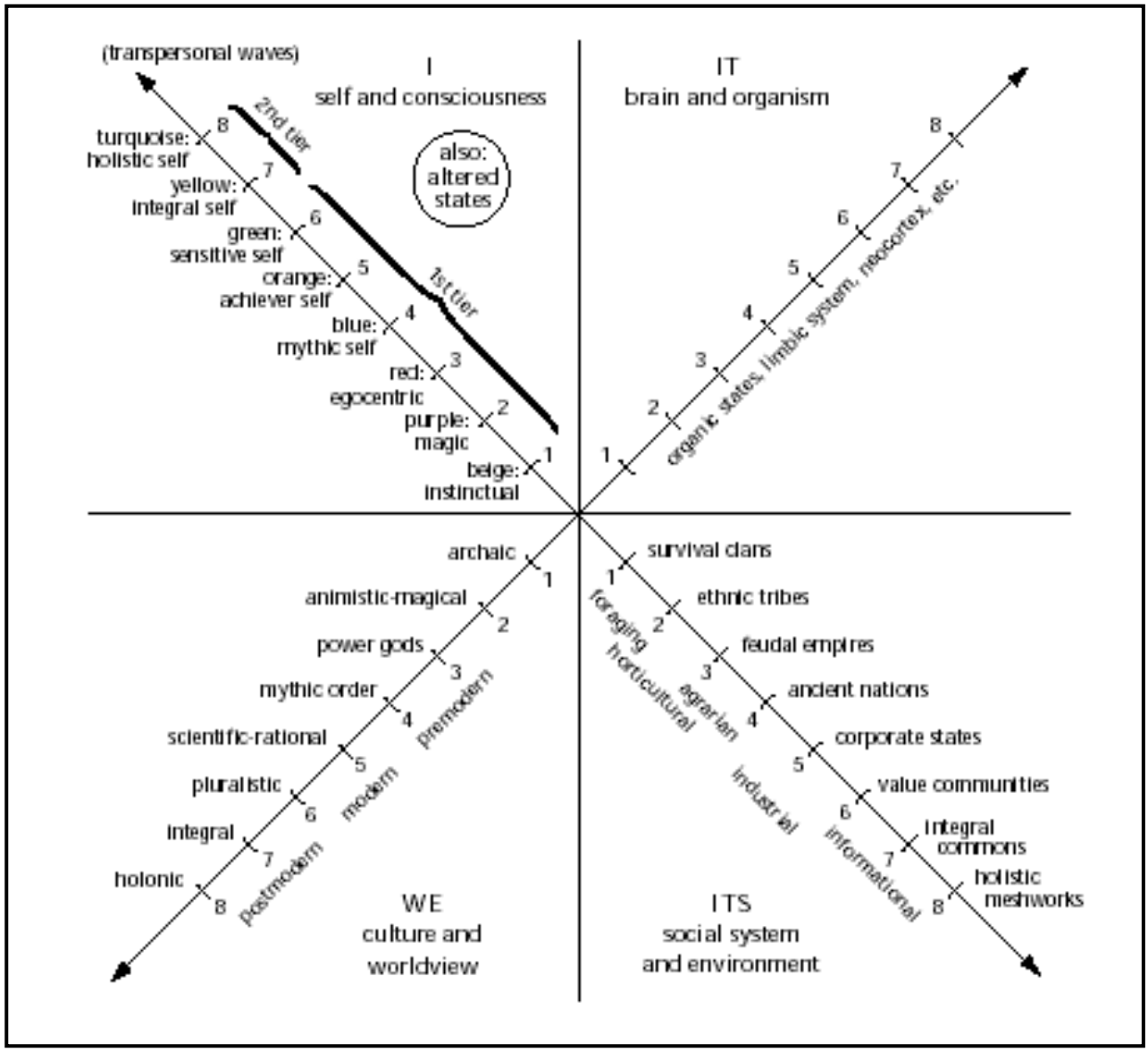

Figure 4 - 4Q/8L - Some Lines in a Human Holarchy of Mind[31]

The details of the formulation and description of the quadrants and eleven levels will not be covered here, and the reader is advised to consult Voros' paper for further insight.[32] Suffice to say, the holonic construct, four fundamental dimensions of, or perspectives on, existence and the spectrum of worldview levels provide a significantly broader and deeper means of conceptualising the world than most FS methods to date. Further, outlines of Integral knowledge creation applied to FS methods, and other potential insights, point to IS being a rich source of theoretical, methodological and practical development for FS. Unfortunately, it also appears on initial examination to entail a more rigours application and is more resource consuming in approach, to be employed effectively.

There are however, potentially simple ways to incorporate these core IS insights into many FS methodologies. To arrive at such a proposal, a means of linking AQAL meta-theory with practical application, or the nature of an Integral paradigm of practice, needs to be articulated. Then the form of an existing FS method, in this case scenarios, needs to be outlined before steps can be proposed for their integration. From here further insights for the inclusion of IS in FS can emerge.

INTEGRAL PRINCIPLES OF PRACTICE

Wilber suggests three broad principles of practice (POP) to describe and guide the nature of applying IS AQAL meta-theory as an Integral paradigm: non-exclusion, unfoldment and enactment.[33] Taken together they assist in the recreation of the AQAL framework with content from the subject of focus.[34]

Non-exclusion reminds us that different perspectives and interpretations should actively be sought and incorporated into any Integral activity.[35] Obviously, the richer the range of differences included in any activity, the broader relevance the outcomes can potentially achieve. This reflects the often stated need for FS to enable breadth in approach. Non-exclusion does not mean that any and every perspective is included in an activity, an impossible and paralysing suggestion. Nor does it mean that every bit of information, knowledge or new idea is of equal value, a pathological suggestion described by Wilber as 'extreme relativistic-plurality.'[36] It does mean however that an openness and pro-activity is afforded to identifying, investigating and assessing ideas or data that can be found to be reasonably related as fundamental or significant to the issue being considered. In short, non-exclusion means 'everybody is right,' given the assumption that 'no one is smart enough to be 100% wrong,' every paradigm, idea, data set, analysis, or such, reflecting different perspectives will hold a true but partial piece of the Integral puzzle.[37]

Unfoldment summarises the vast amount of evidence in numerous disciplines of enquiry that confirm an evolutionary nature of existence.[38] Representing an evolutionary logic it is the background to the definition of a holon's holarchy and provides a ranking principle through determining levels of inclusion, or as it might be put, non-exclusion. This reflects the call for depth in FS methodologies. Unfoldment suggests that in any data, information, knowledge and so on, an evolutionary perspective be taken to investigate antecedents, its compound composition, components internal to the holon of focus, and possible and/or probable developments of that holarchies further unfolding, or what it is internal to.

Enactment reminds us that interpretation and interaction, or enactment, are fundamental features of all knowledge creation and application.[39] It reminds us that nothing is strictly objective, as the very act of observing requires a mutual enactment of a phenomenological space. Enactment reflects the call of 'critical FS' to acknowledge the social-cultural situatedness of all knowledge.[40] Any paradigm employed fundamentally shapes what *can be* seen, what *is* seen, the *way* it can be seen, and how that enactive, or interactive observation, is comprehended, translated and legitimised in meaningful communication forms.

One further POP is helpful in determining how the many different perspectives, issues, facts and so on can be related. In drawing together a conceptual map of as many aspects as possible relevant to the subject of an activity, it is inevitable that many will conflict. In order to deal with this intractable problem, Wilber proposes a 'calculus of uncomfort.'[41] Simply put, it means to assess the options for integration of variables in a manner that determines the least amount of distortion, conflict or 'uncomfort.' Critical FS's transparent motivation of emancipatory intent is echoed in this POP. The calculus of uncomfort implies openly accepting the limitations of mental models of the

world, that maps will never be territories, and encourages the development of relatively more accurate and healthy frameworks of knowledge that cause less amounts of distortion and uncomfort.

INTEGRAL METHODOLOGICAL PLURALISM

These POP taken together with the organising concepts of quadrants, levels and lines can guide the creation of an Integral meta-paradigm, or what Wilber calls an Integral Methodological Pluralism (IMP).[42] An IMP approach actively invites considerably more depth and breadth in approaching a given subject than other methods currently available in scenario literature and FS generally.

Using numerous methods in a structured and integrated fashion is not a new idea in FS. Indeed most FS methods involve the incorporation of a variety of methodological developments from numerous disciplines, with some being uniquely from the field of FS. Scenario planning activities almost always involve other strategic planning or FS methods at different stages, so much so that Martelli refers to a 'methodological chaos,' and Wendell Bell argues that 'the end product of all the methods of futures research is basically the same: a scenario.'[43] What is proposed here then, is a new way of relating and integrating numerous practices, and their originating theories, that draws on the organising insights of IS and conforms to an IMP to arrive at an Integral Scenario Development (ISD) method.

Acknowledging that there are as many scenario methods as there are practitioners, and that an ISD has never been formally proposed before, it would seem prudent to engage scenario planning at a level of general principles, or generic stages, in order to construct a meaningful overview of what an ISD might be like.[44] From there the much harder task of fully fleshing out what an ISD approach would look like in practice, across a multitude of contextual adaptations, can be attempted. First however, a generic outline of current scenario development methods is required.

GENERIC SCENARIO DEVELOPMENT

Building on Slaughter's 'Integral cycle of FS knowledge creation,' his initial applied analysis of this to the scenario development process, and incorporating references to the POP outlined above, a generic scenario development process is depicted in Figure 5.

Step 2: Analysis

POP: Unfoldment

Action: Analyse the data to determine driving forces, their casual chains, critical uncertainties etc and the scenario type to best accommodate the requirements and inputs of the scenarios.

Step 1: Input

POP: Non-exclusion

Action: Use appropriate methodologies to gather information from, and about, the contextual environments relevant to the focus of the scenarios.

Step 3: Interpretations

POP: Enactment

Action: Investigate different interpretations and relationships between the key variables within each scenario developing most significant into internally consistent descriptions/stories.

Step 4: Applications

POP: Uncomfort

Action: Communicate scenarios and their implications to relevant parties for application, eg informing strategy development, monitoring signposts and so on. The relevance of

scenarios for concerned parties is assessed.

Figure 5 - A Generic Scenario Development Process

Each of the four steps in the Integral cycle of scenario knowledge creation can be characterised by a POP. These sites are not the only application, but they highlight the core practical orientation of each POP. These classifications will not be explored in depth here, suffice to say that they are indicative only. Numerous other generic approaches to outlining the scenario development process are available, and in comparison to this approach, are more simplified, however, the majority of aspects are included, if only via implication. A more detailed analysis is outside the scope of this paper. A key step to note however, is the preliminary determination of the parties to be involved, resources available, scope, issues focus and output requirements. This model relates more to the process of 'what' is being done, rather than who and why they are doing it. As such, this provides a fundamental design theory for inclusion in the planning phase, any ongoing monitoring of implementation and final - internal - assessment.

Each of the steps in the scenario development process can be approached differently, depending chiefly upon the intended purpose and place of the scenario planning activity within the organisation it is for. The main differences in scenarios have been characterised in a recent typology by van Notten et al.[45] While an Integral analysis of this typology could be of significant value in devising an ISD, it will not be the approach taken here. A general approach, more grounded in IS AQAL meta-theory, speaking to the opportunities that IS might offer scenario practice, is within the limited scope of this initial treatment. And, indeed, a safer place to commence.

ENABLING INTEGRAL INSIGHTS

Like the diversity of approaches indicated by van Notten et al's scenario typology, the means for employing IS insights into scenario development could well number more than the practitioners who engage them. Following the generic scenario development process outlined in Figure 5, there are at least four broad sites of application for IS. In addition, the numerous organising concepts of IS may be applied as readily relevant to current methods.

It is the comprehensive nature of the POP and IMP that provide the most inviting starting point for an IS approach to achieving FS and scenarios aims. The grounding AQAL meta-theory can provide, through a meaningful alignment of diverse methods, scenario practitioners and FS generally, with a more rigours means of identifying, understanding and practically connecting the assorted methodologies currently and potentially employed.[46] As such, it would seem at first most useful to engage the POP and IMP as guiding principles, or organising policies, to be kept in mind throughout the designing, conducting and assessing of a scenario development process.

In line with these organising policies, or overarching rules of engagement, the other organising concepts of AQAL meta-theory could be incorporated within each step of the generic scenario development process. Given the diversity of methods applied in each step however, this would be a lengthy endeavour. It would be more practical to start with applications of IS to select methods. Again, these would be outside the scope of this paper. So in order to draw out IS insights valuable for an ISD, a means of engaging AQAL meta-theory's concepts on its own terms will be explored. This is to facilitate an initial exploration of an ISD and enable practitioners greater flexibility in drawing on IS insights as they appear relevant to the methods they employ in their scenario practice.

INTEGRAL INPUT & ANALYSIS

There is an extensive range of input and analysis techniques in use.[47] Environmental scanning (ES) is one of these input methods. Voros' Integral approach to ES could suffice.[48] Other methods of collecting relevant data, particularly interviews and workshops, might benefit from the following approach based on using AQAL components as questions.

It is common within FS, and human enquiry generally, to use the proven valuable approach of asking guiding or powerful questions to bring to the surface any underlying unconscious assumptions and observations.[49] Building on this fundamental aspect of enquiry, AQAL's organising concepts could be framed as questions within the context of the subject of focus. These 'root questions,' devoid of context and subject elements, for relating a holon of focus to the quadrants, are outlined in Figure 6. While not strict delineations, the general orientation of responses elicited will reflect the defining 'truth' types (see Figure 1) of each quadrant.

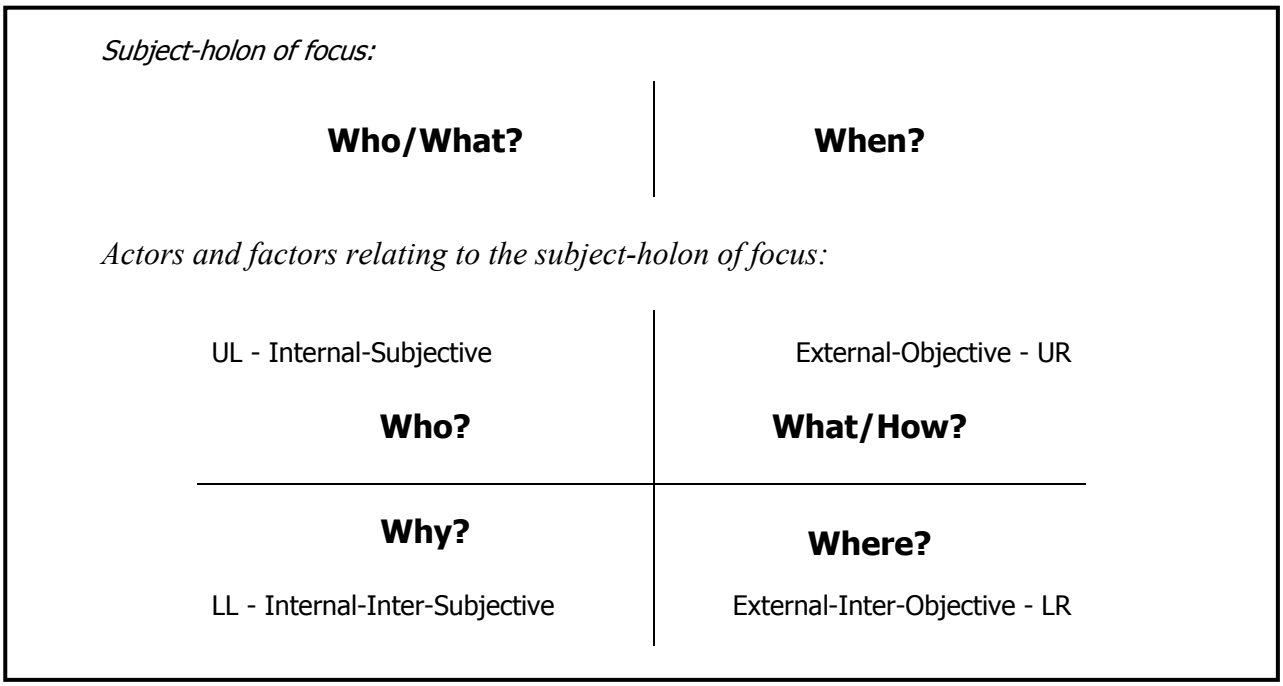

Figure 6 - Six Root Questions

It is common that each subject-holon of focus for the scenario process will be phrased as a question containing an actor ('who') and factor ('what'). To this question, set within a time horizon ('when'), the quadratic questions are addressed, identifying related actors and factors. Each of the actors or factors identified can also be conceived of as a holon.[50] What is needed then, is to identify the nature of the relationship of the holon responses to the original subject-holon, and between them. Here the concepts of *levels* of a holarchy, and *lines* of holarchies within, or relevant to, the holon-subject of focus, can be employed. The developmental sequence nature implied by the definition of a holon in constructing a holarchy leads to the next root questions. Because a holon is a whole part, once a subject-holon is identified as a whole, it begs the question of what is it a part? And similarly, what wholes are a part of it? The answers to these questions facilitate organisation of the responses to the first six root questions. This can be summarised as two holarchy root questions:

QQ is internal to X? QQ is X internal to? Where 'QQ' is the root quadrant question and 'X' is actor/factor or subject-holon already identified. The conceptual relationship of the variables in a holarchy line of 'what' holons is depicted in Figure 7.

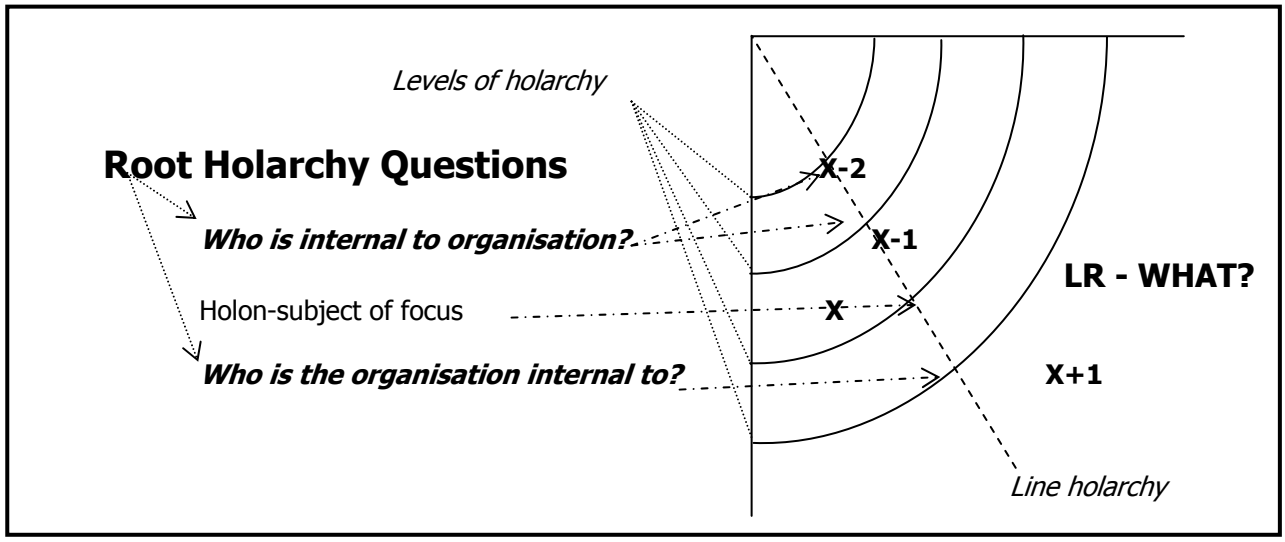

Figure 7 - Example Line Holarchy of 'What' From Two Holarchy Root Questions

Having identified one line of relevant variables in one quadrat, the concept of quadrants informs that the process needs also to identify correlations for each in the other quadrants. This is achieved by reapplying the root quadrant questions. This rigorous approach encourages structured attention to achieving breadth and depth in approach, resulting in a rich picture of related variables to the master holon-subject. Such a picture is conceptually depicted in Figure 8.

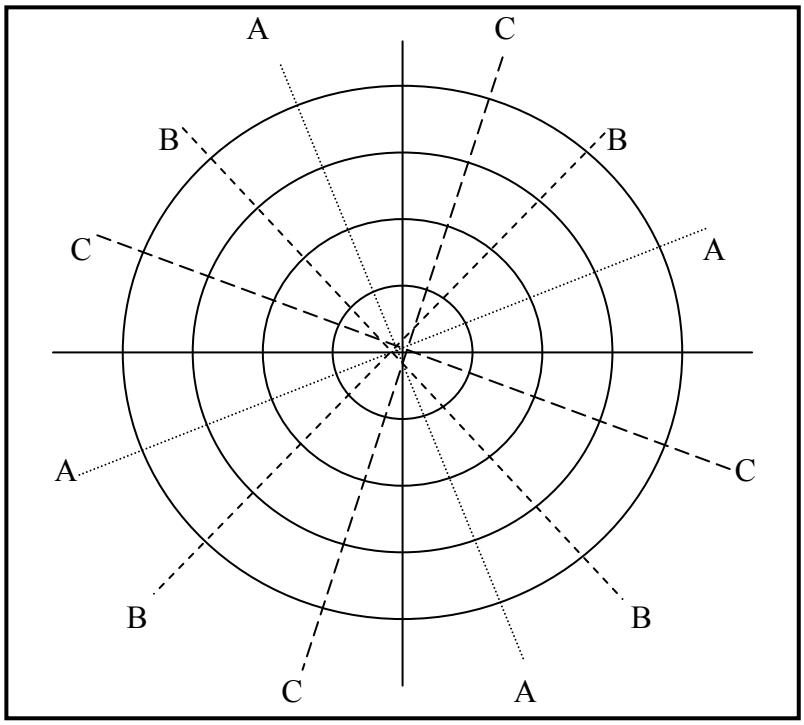

Figure 8 - Conceptual AQAL Identification Map

The figure conceptually illustrates three line holarchies, with their correlations in each quadrant. In reality, each point of intersection between the lines and circles would be a label and possibly have an information summary, description, or the like, accompanying it. The circles are guides only, and some lines may have information points at greater or lesser intervals for levels. Further, each line's designation of levels is not likely to accurately correlate wit others.

At least two other generic observations in applying this approach are likely to arise. First, it may not be necessary, or of any significance to the master-subject-holon, to identify all the details of a subject-holon identified in each quadrant and with detailed lines of holarchy. Here a subjective judgement of relevance needs careful consideration. Second, an identified subject-holon may invite more in-depth attention. In these instances it might be worth applying the whole identification process to the subject-holon as its own master-subject-holon, which is conceptually enfolded in the original subject-holon of focus. In doing so, the knowledge required to achieve each of the identification points is likely to require further research. In identifying the stakeholders for an organisations communication strategy, for example, different information sources could cover each of the quadrants and their questions. This could result, following the communication stakeholder example, in securing psychographics for the UL, valuegraphics for the LL, geo-demographics for the LR, and infographics for the UR, amongst other sources.[51]

In addition to the six root questions and two root holarchy questions, the POP can further add rigour to this approach. Using the POP as guiding policies or rules of engagement was identified above as a means of conducting an ISD. Another, complimentary approach, would be to derive questions from them as well. Nonexclusion could lead to asking 'Have we sought out as many relevant perspectives as possible?' Perspectives could be swapped with actors, or factors, and so on to suit the context in which the question is posed. Enactment leads to asking questions like 'Have we actively sought to identify (surface, objectify) the perspectives/mental models we have used in each stage of the process?' 'How might our perspectives effect what we have identified?' 'Are there others we haven't included?' 'Why not?' Unfoldment should prompt questions, such as, 'Have we identified relationships among the different variables identified?' 'Are there other evolutionary sequences and casual chains (vertical and horizontal relationships) that might link and summarise these variables?' 'How might these sequences be meta-linked?' The scenario development process appears to already include these questions, however, finding their relevance within an IS approach is important.

Once the variables are identified using the root questions, linked via holarchy questions, and rigorously checked using the POPs as questions, an integrated and ordered picture concerning the master subject-holon should emerge. Using AQAL questions and mapping facilitates the information gathering and analysis process and covers the majority of the first two steps of the generic scenario development process outlined in Figure 5. What remains in 'Step 2' is to rank the variables in a manner consistent with a chosen scenario creation method. As this aspect of scenarios is unique to the methodology, the application of IS insights to it will not be addressed in this paper.[52]

INTEGRAL INTERPRETATION & SCENARIO DESIGN

There are two key insights that IS can bring to 'Step 3.' First is the depth and breadth of possible interpretation frameworks, or worldviews. These can either be applied to the results of the first two steps, or, given that this was satisfactorily completed during 'Steps 1 and 2,' these relevant, different and related vantage points can inform the interpretation used in constructing the various scenario stories. Secondly, once an interpretation, or group of interpretative frames have been chosen, the root questions and the AQAL picture of relevant variables can be used as either prompts and/or as a checklist in the creation of the scenario 'story.' This allows for the scenario descriptions or stories to have an Integral nature, in that they include the subjective and objective aspects of realty in both

singular and plural forms. The value is in assisting the creation of a more realistic and holistic picture of the scenario to emerge. The evolutionary macro-history nature of AQAL could also inform the construction of any timeline developed to explain, and/or generate signposts of the path to, each scenario.

CONCLUDING REMARKS

The AQAL root questions approach outlined above is a first attempt at translating IS AQAL meta-theory into a paradigm of practice, relevant to a generic scenario development process, to arrive at an ISD.[53] Doubtlessly there are many opportunities to improve on this approach through refining it, fleshing it out, or even developing entirely different approaches using AQAL. The comprehensive nature of IS approaches include numerous more detailed concepts and statements of dynamics that could valuably be included in an ISD or FS methods generally. This outline is intended as a start to dialogues regarding the application of IS insights in scenario development, with the goal of achieving one or more methodologies that can legitimately be called an Integral Scenario Development process.

Through appreciating IS POP and IMP it is obvious that scenarios already represent a strong synergy with IS. It also becomes clear however, that more robust approaches using meta-theories such as AQAL might significantly further the achievement of the goals of scenarios and FS methodologies generally.

NOTES

[1] See all Slaughter references in bibliography.

[2] Voros (2001), Edwards (2002a/b) .

[3] Slaughter (2000b), Voros (2001).

[4] Voros (2001). The reliability, accuracy and credibility of this theory is not questioned as it is not within the scope of this essay. The evolutionary perspective of IS is the most prominent point of potential debate, and interested readers may wish to assess Wilber's formulations in their original expositions (see all Wilber references, particularly 1999a, and the link to his bibliography in note 8).

[5] van der Heijden (1996) p15.

[6] Bell (1997) p239.

[7] van der Heijden (1996).

[8] For a bibliography of Wilber's published works see http://www.worldofkenwilber.com/

[9] Wilber (2003a) p2.

[10] For a general overview of AQAL meta-theory, *A Theory Of Everything* (Wilber 2000) is the most accessible short book. A detailed application is exampled in *Integral Psychology* (Wilber 1999b).

[11] Wilber (2002).

[12] Wilber (1999a) p5.

[13] Wilber (1999a) p26.

[14] Wilber (1999a) p26.

[15] Wilber (1999a) pp49-52. There is a complex debate, with intricate details required, in order to properly define the nature of a holon. The key distinction not employeed in this introductory essay is that of sentinent and insentinent holons. It is argued that only sentient holons can develop into true holarchies (Koffman 2001). Insentient holons are either artefacts (their manifest structure being the result of a sentient holon's agenic influence) or heaps (a composition of holons where the structure is an unintended by-product of holon's agenic influences). The example in the text of letters, words, paragraphs, and text is an example, considering this distinction, of artefacts. The fundamental concept of being a part and whole is still in evidence, the sentient nature is absent, or inferred only through the holonic agency that developed the text. For the sake of simple introduction, holons will not be defined as either sentient and insentient, simply by whole/partness. A fuller exposition of an Integral Scenario Development would do well to consider the organising implications of this, and related, distinctions.

[16] Wilber (1999a) p560, n47-8.

[17] Wilber (2000) p52.

[18] In fact, Wilber has recently outlined eight 'indigenous perspectives' constructed by appreciating the inside and outside perspective on an internal or external aspect of a holon in either its agenic or communal aspects (see Wilber 2003c). Suffice to say this is radically comprehensive approach that deserves a careful hearing for methodological inclusion into FS. The quadratic perspectives, however, should suffice to facilitate the purpose of this essay in highlighting some of the practical implications of the Integral AQAL model for scenarios.

[19] Wilber (1996) p107.

[20] Wilber (1999a) pp56-64.

[21] Wilber (1999a) p198.

[22] Strictly speaking any holon exists in *at least* the four dimensions represented by the quadrants. So how can a holon and its holarchy reside *within* a quadrant? In effect they don't. They too have correlative manifestations in each quadrant. However, if we take humanity as the holon of focus within our quadrant depiction, it can be seen that the compounding lower-order holons that comprise humanity do in fact reflect the different dimensions. Hence we can talk about and depict a value holarchy of development in the LL for humanity as a whole, while remembering that to understand a particular level of the value holarchy, one needs to shift that holon to centre stage so to speak, and identify its correlative manifestations in each quadrant.

[23] Wilber (1999b) p28.

[24] Voros (2001), Wilber (1999b).

[25] Slaughter (2003), Edwards (2002a).

[26] Slaughter (2003).

[27] Slaughter (2003), Edwards (2002a) p3. The interpretative strand is generally acknowledged as the 'post-modern linguistic turn' that improves on the traditional three strand scientific method by recognising the social-cultural creation and situatedness of all human knowledge (see also Wilber 1999a pp771-8).

[28] Slaughter (2003).

[29] Voros (2001) p45.

[30] Wilber (2000) p46 and p69.

[31] Wilber (2000) p43.

[32] Voros (2001).

[33] Wilber (2003b).

[34] For an appreciation of the POP situated within the originating context of understanding the relationship of different paradigms within AQAL meta-theory, here is a brief summary from Wilber (2003d) p2:

> 'Any integral metatheory might best be guided by three heuristic principles: nonexclusion, enactment, enfoldment.
>
> **'Nonexclusion** means that "Everybody is right"—or more technically, that the experiences brought forth by one paradigm cannot legitimately be used to criticize, negate, or exclude the experiences brought forth by other paradigms.
>
> The reason that "everybody is right" is called **enactment**, which means that no experience is innocent and pregiven, but rather is brought forth or enacted in part by the activity of the subject doing the experiencing. Thus, one activity (or paradigm) will bring forth a particular set of experiences—experiences that are not themselves innocent reflections of the one, true, real, and pregiven world, but rather are co-created and co-enacted by the paradigm or activity itself, and, accordingly, one paradigm does not give "the correct view" of the world and therefore it cannot be used (as if it did) in order to negate, criticize, or exclude other experiences brought forth by other paradigms.
>
> However, if one practice or paradigm includes the essentials of another and then adds further practices—such that it "enfolds" or includes the other—then that paradigm can legitimately be claimed to be more integral, which is the **enfoldment** principle. Together, these guiding principles give us an Integral Methodological Pluralism that is the warrant for AQAL metatheory.'

[35] Wilber (2003b) pp16-20.

[36] Quotes paraphrased from Wilber (2000) p15.

[37] Quotes paraphrased from Wilber (2003b) p22.

[38] Wilber (2003b) pp21-6.

[39] Wilber (2003b) pp26-32.

[40] Slaughter (1999a) pp203-30.

[41] Wilber (2003b) pp32-38.

[42] Wilber (2003a) p93, (2003b).

[43] Martelli (2001), Bell (1997) p317.

[44] van der Heijden (1996) p133.

[45] van Notten et al (2003). The three broad themes of differentiation of 'project goal,' 'process design,' and 'scenario content' map loosely to 'Step 4', 'Step 1' and '2', and 'Step 3' respectively as outlined in Figure 5. Within these three 'themes' are fourteen axis-pairs of characteristics. It appears a robust and expansive typology, yet restricted plead the authors, however in sum, it well reflects the diversity of current scenario practice.

[46] Slaughter (2000b).

[47] For an overview of the range of common methods see Lindgren & Bandhold (2003).

[48] Voros (2001).

[49] Indeed it may even be regarded as the Socratic method, however, for an inroad in FS literature see Tough (2000).

[50] Within IS a holon is regarded to contain some form of interiority, or subjectivity. See note 15 above. While various 'factors' may not appear at first to contain any obvious subjectivity as 'actors' do (a car for example has no consciousness, but the atoms it is composed of are claimed to have a dimension of interiority sufficient to identify them as a holon; alternatively a cultural fashion for rimless glasses doesn't appear to have an interiority, except that upon analysis, it is indeed an inter-subjective phenomena as a cultural preference, which directly implies interiority), a general relationship to a substantial and relevant interiority or subjectivity can almost always be ascertained, in terms of the consciousness who developed, use, or relate to the factor. It is this general interpretation of correlative interiority within a subjective determination of relevance to the subject of focus, that suffices for interiority and holon status within this presentation. For further discussion on the nature of holons, and the relationship of factors (insentient holons - artefacts and heaps) to actors (sentient holons - individual and social) and their different hierarchies, see Wilber (1999a), Kofman (2001) and Edwards (2003). For this simplified introduction and application of AQAL it is assumed that the generalised approach to definitions taken (while skimming over a crucial site of detail and debate in IS and not providing a full treatment of the relationship of actor to factor and holons) sufficiently communicates the general concepts of quadrants, holons and holarchical unfoldment. It is important to note however, that the inclusion of artefacts and heaps into this approach would likely result in a root questions formulation to take them into account (given that Kofman (2001), for example, identifies physical, mental and spiritual artefacts), as well as an application of organising concepts that specifically relate the quadratically identified holons of agency to the influenced insentient holons. Within this presentation artefacts and heaps, or insentient holons, are seen as the constitutive elements of the LR, identified by the 'what' root question.

[51] This correlation of 'x'-graphics to the quadrants has been detailed elsewhere by this author as a 'Public Identification Matrix.' In the PIM, each of the quadrants are treated in a multi-level fashion to arrive at a matrix of integral identity information, most of which is available as 'open source' information in industrialised nations. The example graphics are only indications of the types of information representative of each quadrant, where numerous other sources and classifications are readily applied, and incorporated in the PIM formulation. As no-public published material, further information in only available upon request.

[52] It should be noted however that the identification of holarchial lines with the master-subject-holon of focus can contribute significantly to the identification of critical and constitutive continuations and uncertain variables. A fuller exploration of this value of the Integral root questions approach, along with possible significance for the identification of casual chains, change dynamics and so on, requires a more detailed scope than this paper affords. In addition, the inclusion of POP as questions also leads more directly into the development of the scenario logics that complete 'Step 2.'

[53] It is important to note that the relative merits of attempting this approach have been grounded on the need for broader and deeper means of engaging the forward view with the scenario method in particular. Beyond this, they have not be addressed, however there are likely many important benefits and limitations of such an approach, however it might be formulated - for scenarios, or FS methods generally - which duly need to be investigated once a coherent ISD has been articulated and critically shaped by a FS community.

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