

# **QUALITY FORESIGHT**

*A stylised structure approach to relating the foundation concepts  
of quality foresight decision making*

**By**

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### ABSTRACT

*An intellectual exercise in the number three...*

This essay is a bold and stylised exploration into the conceptual foundations of foresight as a quality decision making activity. Both 'quality' and 'foresight' are defined and their elements are related in a 'meta-process logic' for foresight decision making. This results in a '123 of foresight' or decision making processes generally. Attempting to be a conceptually rigorous proposition, it is intended for use in designing, monitoring and assessing the decision making processes that primarily, but not exclusively, comprise foresight activities. It appears that while this approach may be comprehensive, in practice it best provides a meta-process logic, rather than a detailed application framework, for ensuring rigor in quality foresight decision making.

### DEFINING FORESIGHT

*Foresight is fundamentally a time orientation, a type of knowledge and aspect of all decisions*

Foresight is commonly regarded as a 'natural' capability that has developed in concert with human evolution, yet only in recent decades has it become a focus of considered inquiry.<sup>1</sup> Dictionary definitions of foresight commonly identify three elements: its position, power and action. These are described as the 'forward looking' orientation in time, the power of 'prescience', or knowledge gained from the orientation, and the 'provident care' or prudent action that can result from this orientation and type of knowledge.<sup>2</sup>

Definitions by those involved in futures study, futures research, and futures 'movements' generally emphasise only one of these aspects, some two, and a few all three.<sup>3</sup> Common to all definitions is how their composition is significantly influenced by the context, nature and goal of the foresight activity of focus. This is logical, practical and indeed unavoidable.<sup>4</sup> It is important to state therefore, that this essay will address the position, power and action elements of foresight in the context of a meta-theoretical view of the fundamental concepts that can be deduced from these elements in relation to the futures field. It will take as its nature a deep structure for meaningfully relating these abstract concepts in a process manner to arrive at the goal of a meta-process logic for designing, monitoring and assessing quality foresight.

Foresight is considered innate to humans and is expressed through our every decision that have effects through time. All decisions have consequences for the future, if only as a remnant of the inherited past.<sup>5</sup> Plainly then, foresight is inherent to all decisions.<sup>6</sup> A decision may reflect very little forethought, particularly bad anticipation, simple and effective prediction, inhumane intent, or astoundingly wise and prudent cultural norms and so on, but foresight occurs nonetheless.

It is the conscious engagement in the foresight aspect of decision making processes that interests scholars and practitioners of futures studies. It is with conscious engagement that the forward orientation can be investigated, knowledge generated and understood, and decisions and their resulting actions assessed for quality in achieving our fear-led-control over, and desire-fed-creation of, realising future potentials.

With this broad encompassing nature of foresight in mind, Richard Slaughter, author of *The Foresight Principle*, refers 'to the future as a principle of present action because this term highlights the dynamic interactions between the past, present and future.'<sup>7</sup> Having determined that in the practical end game foresight is about making quality decisions, it is to the matter of time

orientations, the first element of a dictionary definition of foresight, that we will now investigate in relation to foresight as a process of decision making.

### THREE ORIENTATIONS IN TIME

*Future Potentials only exist relative to the Past and Present: thus all decisions inherently involve Hindsight+ Foresight = Insight..*

Human time perception ranges from the finite to the infinite. The finite is the 'creature present' where sequences of interchangeable moments are experienced as a moving yet directionless, and mostly meaningless, 'bounded present.'<sup>8</sup> In the infinite all existence is known within the boundless present, described as 'eternal and infinite' because it is experienced as 'timeless and spaceless.'<sup>9</sup>

Between the finite and infinite human experience of time expands. Through this spectrum, three broad categories of time experience are commonly identified: linear, cyclical, and spiral.<sup>10</sup> Further, each category has numerous types of time experience.<sup>11</sup> Common to all these descriptions are three orientations: past, present and future potentials. Or simply the 3Os.<sup>12</sup>

At either end of the spectrum, one runs into the resolution paradox of time.<sup>13</sup> It is, and it isn't. Yet it is impossible to separate or discard the 3Os without stepping outside of time itself. Even then, while the 3Os might not seem to apply to the extreme finite and infinite, we readily define these experiences in relationship to their absence of past and potential. The paradox leads some to argue time itself does not exist, as St Augustine pointed out so long ago, we actually experience a present-past, a present-present and a present-future.<sup>14</sup> The 3Os can be differentiated but never completely separated from the present. Any attempt to approach one orientation necessarily involves the other two. As Slaughter argues, building on the insights of critical/hermeneutic studies:

'The meaning of the present can only be understood in relation to both past and future. There is no past in the sense of a completed totality, split off from the present. Equally there is no future that stands alone, unaffected by what has gone before. Both are constitutive of the present in a process of unending mediation and change.'<sup>15</sup>

The 3Os, because they are inseparable, are equally aspects of any decision/action. As Foresight is an orientation and a type of knowledge so too is the past with its hindsight and the present with insight. This could be summarised by saying that all decisions result from a formula of 'hindsight + foresight = insight.' In this manner, hindsight and foresight account for all but the present moment when insight, their emergent combination, is acted on in a decision.

More realistically, although still highly stylistically, the relationship of the formula's elements, or the flow of knowledge creation from a time based perspective might look as depicted in Figure 1. Once through the cycle would be 'insight-hindsight-insight-foresight-insight leading to a decision.

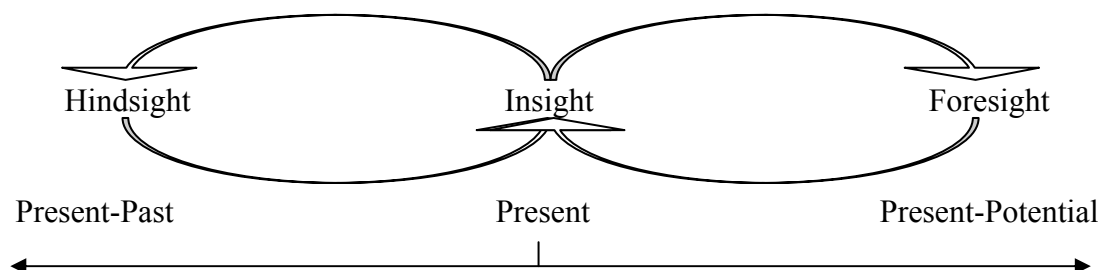


Figure 1: Time Orientation and Knowledge Type<sup>16</sup>

### THREE DOMAINS OF KNOWLEDGE

*The 3Os each have a type of knowledge, which each cover at least three domains of knowledge...*

Within each of the 3Os a different type of knowledge is generated. Knowledge of past and potential constitute an emergent present knowledge that leads to the insight to inform decisions. The specific knowledge of the future can be described as inherently the momentum of the past in the present and potentials of the future in the present. What are the characteristics of these different types of oriented knowledge?

Looking to the knowledge of the future, in the discourse of FS, Inayathulla provides a meta-view of three fundamental disciplines of future knowledge. Looking to knowledge of the past, Wilber provides a deductive meta-view of three fundamental perspectives of knowledge.<sup>17</sup> Looking to the present, Habermas provides a meta-view of three fundamental interests of human knowledge.<sup>18</sup> Related together these triads of the 3Os are outlined in Table 1.

<b>Time Orientation</b>	<b>Knowledge Type</b>	<b>Author</b>	<b>Dimensions of Knowledge</b>		
Past	Hindsight	Wilber	I	We	It
Present	Insight	Habermas	Emancipatory	Pragmatic	Technical
Future	Foresight	Inayathulla	Critical	Cultural/interpretive	Empirical

Table 1: 3Os, Knowledge Types and a Triad of Knowledge Dimensions

These triads of knowledge commonly identify what seem to be inseparable (and not reducible to one another) domains, or dimensions of knowledge that exist in each of the 3Os. As such, any decision should take into account not only the 3Os but also each of their three dimensions of knowledge.<sup>19</sup>

### THREE TYPES OF ACTION

*Three fundamental types of action can be derived from a foresight knowledge orientation*

Having covered the 3Os of time and three dimensions of knowledge we can now identify the resulting decision/actions that form the third part of the definition of foresight. Actions that are derived from conscious engagement with a foresight decision making process can be seen in three broad categories, differentiated by the flow of knowledge through the time orientations:<sup>20</sup>

1. Potential future consequences of present decisions (from present to potential);
2. Present decision implications of potential futures (from potential to present); and,
3. Pathway from actual past to desired potential future (from past, through present to potential).

A decision that is arrived at through consciously considering the 3Os and their triadic knowledge dimensions will at least be honouring the fundamental aspects involved in all decisions, and as such stands a better chance of being deemed a quality decision. By no means is it sufficient, and to resolve that, an investigation of quality is required.

## DEFINING QUALITY

*Conscious foresight is innately about facilitating quality in decision making*

Quality, in the context of decisions and actions, is inherently a subjective judgement about what is of value. Not to say that what is valued can't be quantified, but that the fundamental definition of quality, of good and bad, is a qualitative subjective (and/or inter-subjective) judgement. Thus, quality is not objectively obvious at first. Quality needs to be articulated and explained with the meaning of why it is of value being clearly defined, communicated and understood.

In the context of this essay it is necessary to identify first what a quality-criteria is, then what the criteria are applied to, and finally, the fundamental categories of quality criteria needed to address all foresight decision making.

Working consciously in the foresight orientation, it becomes apparent that the determination of quality is likely to change as time progresses and current future potentials are, or are not, realised. To establish, maintain and develop quality in decision making it seems necessary then, in setting the criteria, to first approach the (inter-)subjective values underlying them so they are:

1. Identified with who 'owns' them, which subject/s determines them;
2. Clear and understandable to those using or subject to them; and,
3. Open and accessible to change, refinement and improvement by the owner through the 'user' (if different from the 'owner').

In essence, these are 'meta-criteria' that allow for and encourage, but not guarantee, quality in quality criteria. The criteria themselves will need to address, or be applied to, three fundamentally different sites relevant to foresight decision making:

1. The quality of the process - the orienting perspective, generation of knowledge, and means of making decisions;
2. The quality of the decision/action itself - in accordance with the context and capabilities available to the decision actioners; and,
3. The quality of the outcomes - has the process and decision/action achieved its original purpose/s?

In order to meaningfully approach these sites of quality criteria application, and thus be able to assess the quality of the quality criteria, it is obviously necessary to define the criteria themselves. The fundamental categories of criteria that are needed to rigorously ensure quality foresight decisions include:

1. *Who and why* -- The identity of those with the power to make (or cause to be made) the decisions/actions, and the nature and features of the normative values they relate to the processes with, need to be elicited and summarised in some manner of 'prioritised checklist of criteria.' These will include such overarching qualitative characteristics as their ethics, aesthetics, values, ideals, motivations/purpose and so on. This sketch of the 'power-normative lens' will require situation specific techniques to identify, prioritise and categorise the relevant subjective qualitative preferences of the power holder;<sup>21</sup>
2. *What decision and how* -- The goal/s, subject/s and outputs/outcomes the decision process is being engaged for, and directed towards, need to be fully articulated in order to provide focus to, and the most fundamental determinate for basic quality assessment of, the decision making process. The outputs/outcomes need to specifically address the type of action the decisions are

to inform (see 'types of action' above). How, or the resources and process nature and form preferences of the power holder, also need to be made explicit. If not directly articulated by the power holder, they should be able to be deduced from 'who and why' above; and,

3. *In which contexts* -- Determining contexts quickly becomes an issue of scales. In order to situate practical boundaries three different scales of context need to be determined - time, breadth and depth:

- *Time* -- For the subject of focus, and the associated issues being investigated (as determined in breadth and depth), the following three variables need to be determined to assist in setting the time horizon to be considered:
  - Intensity -- or the pervasiveness of the subject. To what extent does it impact on other priorities determined through the normative-power lens;
  - Duration -- or the permeance of the subject. How long has and is it likely, this issue and its influence will remain; and,
  - Identification -- or the personalisation of the subject. To what extent does the power holder, or decision maker, identify with the issue.

Each of these variables will require the application of specific methods to arrive at robust decisions. These methods can be chosen in accordance with the criteria set out above. It is logical to at least extend the time horizon to equal periods both into the past and the future.

- *Breadth and depth* -- The power-normative analysis, goal, subject and required outcomes, taken together, will indicate the requirements for the definition of appropriate breadth of, and depth within, the issues to be considered. Here, the normal suite of foresight methodologies can be assessed to see which will best meet the decision specific criteria outlined above.

The scales of appropriate time, breadth and depth outline the decision context as depicted in figure 2. The decision context determines the field within which knowledge is to be generated, or the resources deemed necessary to inform the making of a quality decision/s.

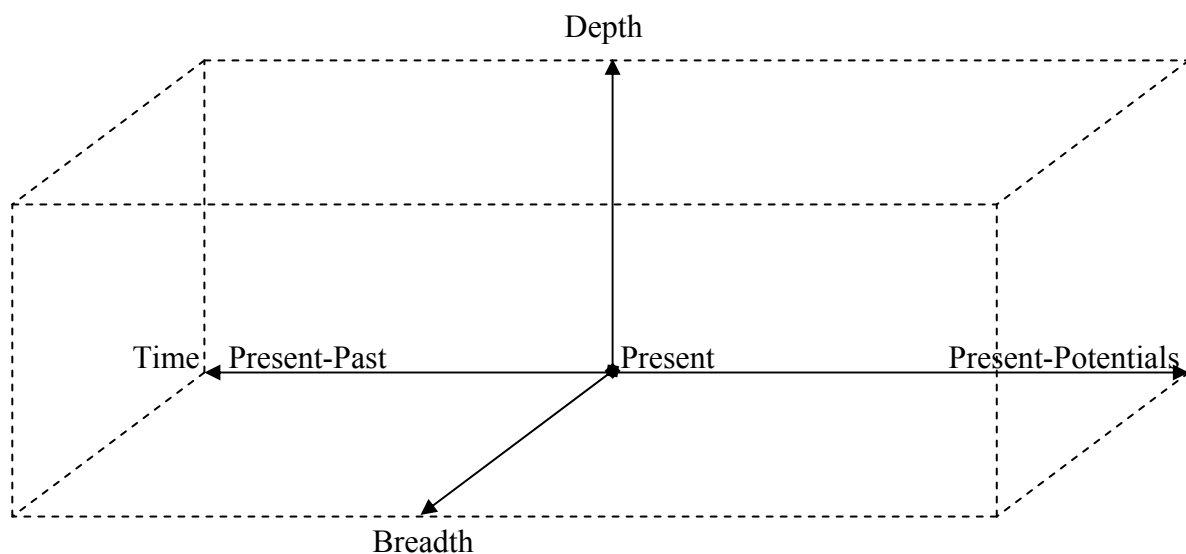


Figure 2: The Decision Context

## A META-PROCESS LOGIC

The 3Os, three dimensions of knowledge, three types of action, and the quality criteria and decision context outlined above, summarise the conceptually fundamental aspects of any quality foresight decision making process. Given the logic of each decision making activity needing to be designed, monitored, or implemented, and assessed, the foregoing elements of quality and foresight knowledge could be related into a process logic for application as follows:

1. Determine quality criteria, action type/s, decision context;
2. In determining the breadth and depth required and the methodologies appropriate to cover the decision context, include all three time orientations and at least the three dimensions of knowledge; and,
3. Assess all decisions, and likely resulting actions, against the quality criteria.

Each of these applications will need to address the knowledge generation cycle, which includes at least three steps:<sup>22</sup>

1. Inputs - data/information in context;
2. Throughputs - analysis/interpretation; and,
3. Outputs - informing decisions and actions.

An outline of all the foundational elements identified in this paper, and the stylised structure applied, is provided in appendix A.

## CONCLUDING REMARKS

The meta-process-logic is essentially an abstracted checklist for designing, monitoring and assessing quality foresight decision making processes. The process is open to all decision making. It is especially important that decisions requiring a high order of foresight (ie those whose three time factors are high) consciously engage each of the aspects identified. This stylised structure approach to the fundamental concepts involved is a new attempt to facilitate this engagement. While most of the insights of this presentation might not be new to foresight practitioners and decision makers generally, the explicit inclusion of the foresight aspect, and its relationship to other aspects of decision making, provides another means to appreciate the importance of consciously engaging quality in the futures orientation of all decisions.

### NOTES

<sup>1</sup> Foresight development in other species, while a potentially fascinating study and potentially of value in understanding antecedents to human foresight, are out side the small scope of this essay and will not be dealt with here.

<sup>2</sup> Concise Macquarie Dictionary (1986).

<sup>3</sup> Slaughter (1999) p204

<sup>4</sup> Due of course to the social construction of reality, the sociol-cultural embeddedness of all knowledge. For further discussion of this theme available within the existing references see Slaughter (1999) p212-221.

<sup>5</sup> To quote Wendell Bell on this, his third assumption of futures studies, 'futures thinking is essential for human action. For the consequences of action always lie in the future. But futures thinking...is done only more or less well' (Bell 1997 p162).

<sup>6</sup> Because foresight as a 'decision science' is commonly pitted against foresight as a 'decision art,' framing all decisions as involving foresight might be seen by many as a contentious point in the FS discourse. It is important to observe therefore, what is meant here by foresight as decision making. Primarily 'decision' is meant in terms of action that results of the forward orientation and knowledge generated therein. Given that within time the future does not actually exist, but rather is a field of potential that our current decisions shape the realisation of, it is important to acknowledge the contributions that are made by the totality of our being, or our collective beings, in making a decision. From this integral perspective the foresight as decision becomes more an 'action science' (Bell 1997 p181) than 'decision science,' appealing to the concerns resolved in Wendell Bell's 'critical realism' approach (Bell 1997 p207-214), while including the cultural, hermeneutic 'action learning' preferred by Sohail Inayathulla (Stevenson 2003 p289). Yet the key point is going one step further in defining 'foresight as decision' than does Jerry Ravetz with 'science' as a 'traditional grail of truth' being replaced with 'the criterion of quality' (Ravetz 2002) and combine the two approaches in an integral frame such as proposed by Slaughter in his latest additions of Ken Wilber's AQAL model in his critical futures approach (Slaughter 1999 p341-356). Decision quality is addressed latter as a fundamental aspect of foresight under 'defining quality.' The scientific, moral/ethical and artistic approaches (to name a few) to foresight decisions are all taken into account, notably in implicit manner, through the discussion of three knowledge dimensions and the importance of breath and depth of knowledge generation and analysis.

<sup>7</sup> Slaughter (2000).

<sup>8</sup> Slaughter (1999) p125-126.

<sup>9</sup> Wilber, K. (1999a) p116-139.

<sup>10</sup> See Masini, E. B. (2000), Inayathulla, S. (1993), or for a different view, Kamppinen, M. (2000).

<sup>11</sup> For an outline of these different types of time experience within a futures context see Inayathulla, S. (1993).

<sup>12</sup> What knowledge, vale and action/decision etc each orientation involves for a person, or group, is influenced by the category, type and other factors of their compound identity and their position on the time spectrum (eg a person on certain drugs may be experiencing the finite, one in a state of meditation may be experiencing the infinite, while both of their subconsciousness might be experiencing a sense of time within the 3Os). The other factors like personality traits, emotional intelligence, social-cultural situatedness, education and many others influence one's foresight and logically, ones hindsight and present insight (Hayward 2003 p37). Some of the 'many other' influences on foresight are outlined in a research agenda by Hayward on page 37 and 13. Key insights into further psychological research can also be found on page 11 under 'the nature of the studies in 'time' themselves.'

<sup>13</sup> Barbour, J.B. (2001), Dorato, M.(2002), and Dogen's ideas on time (undated).

<sup>14</sup> Dogen's ideas on time (undated)

<sup>15</sup> Slaughter (1999) p220.

<sup>16</sup> This figure is based on Slaughter's 'interaction of the past, present and future,' and 'weaving the present from the past and future' figures (No. 3.3 and 3.4 respectively in Slaughter 1999 p125-6). In effect it is a combination of the 'weaving' aspect and the 'flow' with the emphasis being on the organising thesis of all time perception as based in the present, thus interaction of past and future knowledge types is mediated through the present, which changes through accumulation of the flow switching from an orientation towards the past to potentials. Here, the paradox of the infinite preset is acknowledged, and seen as an active component of the opposite orientations, thus the 3Os are maintained as inseparable. The fact that the flow is depicted as an infinity symbol is a beautiful coincidence that reminds one of what

standing outside of time, and simultaneously witnessing the past, present and future potentials exist simultaneously, actually means.

<sup>17</sup> Wilber, K. (1999b) p401-405 referenced from Slaughter (1999) p346-348. Wilber's approach makes reference to Kant's three critiques and many other historical discoveries, theories and understandings in formulating this deduced triad knowledge of the past. In recent writings (excerpts from forthcoming '*Sex, Karma and Creativity*' from Shambhala available at <http://wilber.shambhala.com/>) Wilber actually expands into eight fundamental perspectives of being (ontology) in the world which enact eight fundamental ways of knowing the world (epistemology/axiology), however the triad pronouns, or fundamental perspectives on reality, form a significant 'big three' enough to facilitate most varieties of knowledge in relation to each other.

<sup>18</sup> Habermas, J. *Knowledge and Human Interests*, Heinemann, (1972) p309 referenced from Slaughter (1999) p216-219.

<sup>19</sup> A full account, or even adequate example of application of the knowledge triad through the 3Os is beyond the scope of this explorative essay. The reader is invited to consult the original authors for deeper explanation of their meta-theories and for clues as to how they might be best applied in knowledge generation, interpretation and application. It is not the intention here to suggest that there are no differences between the three dimensions that each author addresses, just that there is sufficient commonality for a correlation in relation to the 3Os. Further, each author could well be situated within any of the 3Os. The classification of the author's theories into the 3Os here is indicative of a general theme that characterises their theory in my opinion. Again, further explanation of this is outside the scope of this essay. Finally, each author's theory, by virtue of being a meta-theory, can easily be applicable to any or all of the 3Os.

<sup>20</sup> This categorisation of action was arrived at via two means. Firstly reviewing the functions of foresight according to Slaughter (1999 p151-152) and the types of foresight identified by Hayward (2003 p16-19). Secondly, deductive reasoning concerning the nature of the relationship between the 3Os was simultaneously used. It would evidently be of value, if no significant flaws can be found in this reasoning, that the categorisation be further investigated to assess its validity in foresight practice. As a taxonomy however, its real value is to be assessed by those who may or may not find it a useful lens through which to approach quality decisions in a foresight orientation. It is doubtless it can be subdivided to a greater extent, however, the key focus of his essay is on a fundamental conceptual level, and hence this is the level at which the analysis has been conducted.

<sup>21</sup> The 'power-normative-lens' is a concept developed by the author to summarise insights from numerous sources. Power refers to the identity holding the subjective value, in that it can be applied to a decision/action. Normative refers to the preferred nature of such value judgements. Lens acts as a reminder of the developed nature of the value preference and that it is particular and can be 'refocused.'

<sup>22</sup> This is a compression of the integral knowledge cycle introduced into futures studies by Slaughter (2002). The main steps in Slaughter's process are retained, however the theoretical formulation is adapted to suit the stylised structure being applied here.

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APPENDIX A

An outline of all the conceptually foundational elements of a quality foresight decision making process identified in this paper are summarised in table form below. A 'once through' example of how these elements are related in practice is unfortunately outside the constraints of this essay. A diagram of the process relationships would necessitate the 27 variables in the third column being drawn out by their linkages to the order of three to the power of nine, or 19683 derivative relationships. Clearly this is outside the scope of this essay.

1. Meta-Process Logic	1.1. Decision Making Activity	1.1.1. Design
		1.1.2. Monitor
		1.1.3. Assess
	1.2. Application Sites	1.2.1. Identify quality criteria
		1.2.2. Select decision making components
		1.2.3. Assess decision information against quality criteria
	1.3. Knowledge	1.3.1. Inputs - data/information in context
		1.3.2. Through - analysis/interpretation
		1.3.3. Outputs - informing decisions and actions
2. Quality	2.1. Requires	2.1.1. Owner
		2.1.2. Comprehension
		2.1.3. Openness to change
	2.2. Application Sites	2.2.1. Process
		2.2.2. Decision/action in context
		2.2.3. Assessing outcomes of decided action
	2.3. Criteria Categories	2.3.1. Who & Why - power-normative lens
		2.3.2. What & How - goal, subject, outcome - process requirements
		2.3.3. Where & When (Decision Context) - appropriate scales of time, breadth, depth
3. Knowledge	3.1. Time Orientation	3.1.1. Hindsight
		3.1.2. Foresight
		3.1.3. Insight
	3.2. Dimension	3.2.1. I - Emancipatory - Critical
		3.2.2. We - Pragmatic - Empirical
		3.2.3. It - Technical - Cultural/interpretive
	3.3. Decision/Action Direction	3.3.1. Backward
		3.3.2. Forward
		3.3.3. Normative