Resolving the Moral Impediments to Foresight Action*

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Abstract

Why is foresight research often unable to create foresight actions? This paper explores whether an individual's psychological development could be a factor. It employs the work of Jane Loevinger as a basis for exploring this hypothesis. It also examines the findings of the Global Lookout Panel which identified the factors needed for successful implementation of futures research. It suggests that resolution lies in the ongoing development of the researcher and decision-maker.

Keywords Foresight, Decision-Making, Psychology, Development

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1 The Moral Imperative

The Millennium Project by the American Council for the United Nations University created a Global Lookout Panel to identify reasons for success or failure of individuals and organisations to heed the warnings provided by a range of foresight research. The top ten impediments the Global Lookout Panel identified were:

- *Institutional.* No responsibility to act or little co-ordination between responsible agents.
- *Financial.* Unwilling or unable to provide resources.
- *Lack of interest in the future.* Near-term issues thought more important.
- *Planning inadequacy.* Lack of a long-term view.
- *Personnel.* Lack of decision skills or understanding of complexities.
- *Strategic.* Lack of strategy, goals and coordinated actions.
- *Complexity.* Lack of understanding, lack of models, stereotypical thinking.
- *Political.* Interferes with national interest or supported by political opponent.
- *Information.* Lack of accurate and reliable data or uncertain of risks.
- *Lack of consensus.* Differing interests and ideology (**?**, p.178).

When that list is examined, one gets a sense that the inability of individuals and organisations to act upon foresight research can be addressed by better organisational design, planning, resourcing and skilling. You can imagine a presentation to an executive team saying that, 'if we get the right people and processes in place then we will be able to get value for money from our foresight research'. Organisation charts would be redesigned, training courses held and inspiring words spoken by the CEO to the staff. Yet come the next big business crisis, funding shortfall, political earthquake or competitor triumph then would the newfound commitment to foresight be sustained? Perhaps it would be, or more likely, it will be replaced by *pragmatic* business needs to take action now. 'Full speed ahead and damn the torpedoes'.

It is not the purpose of this paper to undermine the importance of design, resources and planning in successful foresight projects but rather to highlight that the organisational capability to consider future implications is synonymous with the individual capability of the people in that organisation to do that very same thing. Without an individual capability to *understand* there is no organisational capability either. Plotinus in AD 270 said it best. *Adaequatio rei et intellectus* ('the understanding of the knower must be adequate to the thing to be known'). What is it that makes some individuals and organisations seemingly inadequate to deal with foresight research?

The ability of an individual to manage complexity is a function of their cognitive processing and power (**?**, p.48). The corollary for an organisation is that through the interaction of its structure, processes and people it can generate an equivalent organisational 'capacity' to manage the complexity of its environment. After all, if organising doesn't create a greater capacity for managing complexity then why bother to organise at all? The unstated assumption is that the cognitive capacity of individual's working in concert must surely be greater than the capacity of any of the individuals alone.

Jacques describes four levels of decision complexity. First the complexity of concrete things, the complexity of doing. Second the abstraction of verbal variables that encompass the concrete things to be done. Third the abstraction of concepts by which certainty becomes uncertain and ambiguity is the norm. Last is the abstraction of the universals which encompass many of the third level concepts (**?**, p.55). Thus decision complexity is seen to increase as the nature of the decision becomes increasingly abstract and ambiguous. The premise of organisational hierarchy is, therefore, that senior decision makers require the cognitive power to process increasingly abstract and complex decisions. But do they?

While foresight research would be used at each of those levels of decision complexity the majority of foresight research would be at the third and fourth levels of abstraction (the abstraction of concepts and universals). Perhaps the inability of some individuals and organisations to deal with foresight research is due to the lack of the necessary cognitive capacity to deal with those levels of complexity? While cognitive capacity was not specifically mentioned as one of the top ten impediments found by the Global Lookout Panel another factor was cited which is relevant.

In addition to the top ten factors highlighted before, the Global Lookout Panel also identified the following 'moral impediments' to foresight actions:

- *Insufficient attention to the needs of future generations*
- *Caring about the wellbeing of only one's own group or nation*
- *Corruption of leaders and policy makers*
- *Greed and self-centredness*
- *Acceptance of inequities*
- *Lack of a holistic view of the world*
- *Lack of respect for the environment*
- *Lack of compassion and tolerance for others* (**?**, p.179).

These factors were seen as additional to the top ten factors. The research did not draw a direct connection between these 'moral' impediments and those organisational problems. I would argue that the existence of *any* of the moral impediments would reduce the impulse to act to almost zero. Irrespective of the extent of planning, resourcing and skilling available, if some of those moral perspectives were held by the decision maker why would they feel a need to act at all? What would be motivating them to do so? Addressing these moral impediments could well impact upon most, if not all, of the top ten factors that were found to limit the adoption of foresight research. I would further argue that *no sustainable change to the organisational stance towards foresight research is possible unless there is adequate moral development in the individuals of that organisation.* It is the purpose of this paper, therefore, to investigate the impact of *moral thought* upon the individual and organisational capability to understand and act upon foresight research. That is not to say that only 'good' people can do this and thereby demonise those people and organisations that might find foresight research of little relevance to how they live their lives and run their organisations. Rather, this paper will explain how the psychological development of moral thought might explain this.

2 The Psychological Development of Moral Thought

Research into psychological development by a great number of researchers has found that individual psychology tends to evolve in a sequential fashion. Later stages tend to build upon or incorporate the earlier ones and generally no stage can be skipped over (**?**, p.28). The nature of this development has become increasing differentiated over time and many different developmental *lines* have been researched. This paper will focus on two of these lines, cognitive and self-sense. These lines should have a strong correlation to the way an individual would conceive of and employ foresight. Cognitive development governs the complexity of thinking that an individual can employ. Self-sense governs how the individual thinks about themselves and the external world and how they seek congruence in that relationship.

The work of one researcher will be examined in detail, Jane Loevinger's research into ego development. While there are other researchers who would be relevant in this area it is considered that applying Loevinger's research findings should be sufficient to demonstrate if there is any merit in the original hypothesis. Also the foundational research of Jean Piaget will be revisited in part.

Jane Loevinger researched the structure of ego development in individuals. Influenced by the work of Jean Piaget, for her development referred to the transformation of the structures of character over their life. She found that ego development demonstrated certain attributes.

- There are different stages of development through which an individual may pass.
- The process is not smooth; there may be discontinuities.
- The stages are invariable; no stage can be skipped.
- Each stage builds on and transforms the previous one.
- There is an inner logic to each stage that produces equilibrium and stability in the individual.

Loevinger's achievement was to both hypothesise the stages of ego development and to develop an instrument that was able to reliably measure what stage of development an individual is probably operating from (refer to Table 1 for a simple summary of the stages).

Table 1: Loevinger's Stages of Ego Development (Loevinger 1976, p.24)

Stage	Cognitive Style
Presocial	Autistic
Impulsive	Basic Dichotomies
Self-Protective	Dichotomous Thinking
Conformist	Conceptual simplicity
Self-Aware	Multiplicity
Conscientious	Conceptual complexity, patterning
Individualistic	Add: Distinction of process and outcome
Autonomous	Increased complexity, ambiguity, contradiction

Loevinger's work on ego development is useful in the study of foresight because what she was measuring was an individual's self-sense and the relationship to the external world. Thus Loevinger's work gives a guide of what an individual's cognitive process might be sensitive to in the external world, how that external world might be modelled and interpreted by

the individual and what range of actions the individual could chose from in response to those interpretations. The 'moral impediments' found by the Global Lookout Panel could be manifestations of that self-sense.

2.1 Loevinger's Pre-Foresight Stages

The first three stages (*Presocial*, *Impulsive* and *Self-Protective*) are where the individual begins to form a sense of themselves as separate from their environment. These early stages are useful in the study of maladaptive behaviour but do not offer very much for the study of foresight, other than providing the point from which the more interesting stages emerge. At the *Self-Protective* stage the individual can anticipate immediate and short-term rewards and punishments as controls on impulsive actions. The individual has almost no ability to understand conceptual complexity and causality.

At the next stage of development, (*Conformist*), the first conception of self that is propitious to the practice of foresight emerges. At this stage the individual associates themselves with an external group. For the younger child this group is often the family and for an older child this group is normally the peer group. The individual desires conformity with the group and so obeys the group sanctioned rules. Through conformity with these group sanctioned rules the individual achieves a sense of belonging, a sense of social desirability. The power of social desirability makes the *Conformist* sensitive to shame and disapproval which generally arises from the failure to keep to the rules. These feelings do demonstrate development in the individual's interiority.

It is also at the *Conformist* stage that the individual begins to have the first sense of cultural identity. In this case the main function of the group culture is to sanction rules and to grant desirability to individuals. Thus the individual's stance towards the environment is mediated by the group rules. As the individual has a group that he/she associates with, then that individual must, by definition, have other groups with whom he/she do not associate. This creates a simple stereotyping, often based upon external characteristics. 'I am conformist and I wish the desirability of other conformist so those I do not desire to be with must be therefore be non-conformists'. The range of actions available to the individual is also mediated by the group rules.

There is now a naïve sense of foresight in place. The decision-space of the individual reflects the group's shared cultural rules and it also includes the range of socially acceptable actions which an individual can take. What is not clearly present is an understanding of conceptual complexity and causality. While the individual is still centrally located in the present, a hopeful, future sense of continuing social desirability is emerging. Here we could speak of 'good' or 'bad' futures, a 'good' future of continuing conformity or a 'bad' future of exclusion from the social group .

2.2 Foresight begins to emerge

The next stage is described by Loevinger as a point of transition for the individual. While the individual is still operating from a conformist standpoint and preference, he/she also becomes *Self-Aware*. The individual now appreciates multiple possibilities in situations and the understanding of conceptual complexity is increasing. At the same time that multiple perspectives are considered in the external world, the interiority of the individual begins to examine *itself*. What arises is a 'feeling' that one's self does not live up to the standards or rules of the group. As measuring up to group rules is the path to social desirability then it should not be surprising that the description of the feelings described by the individual at this stage include 'lonely' and 'self-conscious'.

In 1976 Loevinger said that this stage was probably the modal level for adults in American society (**?**, p.19). In 1980 further research appeared to confirm this (**?**, p.228). That finding should be initially surprising and then perhaps not. This is the stage of self-sense that employs a cognitive style of simplicity and stereotypes. It is still a conformist perspective where the individual wants to comply with its chosen group's social rules. The individual wants to be socially desirable. Conceptual complexity is starting and interior depth is beginning to take shape but this is not an ego state that is very far removed from late adolescence in mental age. Foresight can be sustained at this stage but only in a rudimentary form. To retain internal stability and coherence, foresight has to be directed towards conformist outcomes, otherwise it would be rejected. Foresight could not challenge group rules or show how other 'rules' could be equally applicable.

The 'moral impediments' of the Millennium Project will now be examined against the background of the *Self-Aware* ego stage and any obvious correlations will be noted.

- *Insufficient attention to the needs of future generations.* Future generations would not be considered part of the social group that the self-aware individual sought conformity with. Such a finding would be consistent with the *Self Aware* ego stage.
- *Caring about the wellbeing of only one's own group or nation.* This is the hallmark of the conformist and self-aware individual. All that matters is one's own group.
- *Corruption of leaders and policy makers.* No necessary correlation here.
- *Greed and self-centredness* No necessary correlation here.
- *Acceptance of inequities.* Conformist and Self-aware individuals 'see' the world in terms of stereotypes. Inequalities would not be seen, however differences would be seen.
- *Lack of a holistic view of the world.* There is not sufficient conceptual complexity at this stage to sustain such a viewpoint.
- *Lack of respect for the environment.* This might be a combination of conceptual complexity and the inability of the individual to associate with anything other than a social grouping.
- *Lack of compassion and tolerance for others.* Refer to the comments against inequalities (**?**, p.179).

The findings of the Millennium Project are broadly consistent with what reactions could have been expected if foresight projects were encountering *Conformist* and *Self-Aware* levels of ego development. While individuals at those ego levels could find it difficult to reach the senior levels of most of the organisations that were surveyed it should be noted that those moral impediments were observed.

2.3 Foresight Formally appears

The next developmental stage (*Conscientious*) occurs as the individual displays a heightened sense of self and inner feelings. It can be said that the individual displays a 'conscience' at this stage although something like a conscience has been operating at the previous stages. At the *Impulsive* stage the individual does little more than describe people as good or bad. There is no moral dimension here. The *Self-Protective* stage evidences blame but does not have a corresponding sense of personal responsibility. The *Conformist* feels guilt for

breaking the rules and so this is a beginning of adult conscience. At the *Conscientious* stage is added self-evaluation, self-criticism and self-responsibility so conscience is said to be fully developed.

Along with these heightened inner processes the *Conscientious* individual is confident enough to make individual choices around which group rules or norms will be complied with. The individual now is more confident of their ability to shape their destiny rather than just accepting it. A focus on achievement emerges and with it comes long-term, self evaluated goals and ideals (**?**, p.20). The 'right-thinking' mind has arisen. Conceptual thought now includes nuances and distinctions. Distinctions are no longer the simple binary opposites of the earlier stages. Now what is distinguished is important or trivial, private or public, inner or outer. Individual interiority is now well developed so feelings and actions are now correlated. The individual also has the ability to take another person's perspective and this expands the mutual social space. What also emerges is the ability to look at things from a broad social perspective, on some occasions, rather than just the individual perspective of the previous levels. This social perspective, however, is not holism at this stage.

In the Piagetian scheme of cognitive development Loevinger's *Conscientious* ego stage correlates to Piaget's cognitive development stage of *formal operational* thinking. This mode of thought was regarded as the stage where a person reasons 'correctly', where hypothetical possibilities and reversible operations are possible; in short the operations of the 'adult' mind. This was Piaget's highest stage of cognitive development. Later research, however, has suggested that formal operational abilities are still quite limited at this stage. 'Although the individual is able to unify parts of single abstract systems and function systemically and coherently within them, he or she cannot yet construct a metalanguage to compare systems and coordinate them. As a result, thinking remains dominated by static categories and dualistic constructions of reality' (**?**, p.68).

To summarise, at the *Conscientious* stage of ego development an individual would usually be employing formal operational thinking. The doubt and loneliness of the *Self-Aware* stage has given way to a confidence in individual achievement. Plans, goals and ideals are self evaluated and different perspectives can be adopted. Foresight practiced at this stage would be confident and ambitious. The foresight, however, would still be operating with static categories and dualistic constructions of reality. Remember too, that this is the stage *above* the modal state determined by Loevinger's research.

The findings by the Global Lookout Panel on the possible sources of the moral impediments to the use of foresight research illustrate how the combination of ego stage and cognitive method produce 'moral impediments' to decisions. These were some of their findings of what can cause moral impediments.

- *Rarely are decisions informed by futures research of the right vs. wrong or legal vs. illegal sort. Most often, decisions informed by futures research involve trade-offs.* Conformist thinking wants binary decision making but even Conscientious thinking would still be struggling with issues that transcend its categories. Tradeoffs and conflicting issues will defeat the formal problem solving orientation of both stages.

- *A barrier with moral overtones is the need for a trade off between Near-term and Long-Term, where what is good for now is at odds with what's good for the future. Who sacrifices now? How much?* An example of Conscientious thinking. While the barrier identified recognises greater conceptual complexity than simply what is right or wrong (Conformist thinking), through the phrasing of the statement it shows that it is still operating in a dualistic reality.

- *A Truth vs. Loyalty dilemma where one's allegiance to a person, nation or idea is*

challenged by one's understanding of what honesty or integrity demands. This finding speaks of the rising conflict inside the Conscientious individual on their way towards the next stage of ego development. More on this later.

- *The Individual vs. Community dilemma where the needs of the self and the needs of a community are both right and mutually exclusive.* Again the finding is about an inner conflict arising in the Conscientious individual.
- *The tradeoff between Justice and Mercy, where the stern demands of law and the clear need for compassion.* Here the very high order concepts of justice and mercy are quite beyond the thinking of an individual at the Conscientious stage (**?**, p.5).

2.4 The transitions towards post-formal foresight

In the movement from the *Conscientious* stage the self-sense of the individual struggles with achieving a greater sense of external individuality while at the same time recognising a need for emotional dependence on others. At the *Individualistic* stage the person becomes aware of this inner conflict but is unable to fully resolve it. The awareness of this conflict, however, is thought to lead the individual towards a greater tolerance of themselves and others. Some of the certainty, achievement focus and moralism of the *Conscientious* stage begins to be tempered by an increased ability for the individual to tolerate paradox and contradiction. This awareness can be demonstrated by the articulation of discrepancies between inner reality and outer appearance, between the psychological and physiological, between process and outcome (**?**, p.23).

At the *Autonomous* stage the individual can now cope with this inner conflict, they can accept the inherent contradictions in life and just get on with things. What were seen as 'opposites' at the earlier stages is now recognised as complexity. Conceptual complexity and an increased acceptance to ambiguity are now displayed and not all problems are seen as solvable. The dualistic constructions of formal operative thought are now weaker. Social ideals now include abstract concepts such as justice and equality. Autonomy in the self and other individuals is recognised, as is the often excessive striving and ambition of the *Conscientious* stage.

Loevinger hypothesised that there was another stage, *Integrated* which transcends conflicts and reconciles polarities. This stage was, however, very hard to find and even harder to study. She said that 'the psychologist trying to study this stage must acknowledge his own limitations as a potential hinderance to comprehension. The higher the stage studied, the more it is likely to exceed his own and thus stretch his capacity' (**?**, p.26). A clear annunciation of the *Adaequatio* problem. As a result she tended to refer to this stage less and less over time and her most recent work stops measuring development beyond the *Autonomous* stage.

It would appear that rather than six (or seven) stages of ego development that an individual progresses smoothly through, what happens is that there are two points where something transformational occurs. The development from *Self-Protective* to *Conformist/Conscientious* seems to be the point at which the 'correct' thinking adult emerges who can employ Piaget's formal operational thinking to find congruence in the world. Research shows that the bulk of America (and probably most of Western society) are at this stage. It then appears that another 'leap' occurs when the individual sees the world less in terms of categories and dualities, and more in terms of complexity, paradox and ambiguity. These later stages, *Individualistic/Autonomous/Integrated*, are beyond the average stage of individual development.

It cannot be proved, because it was not tested for, but there would seem to be a strong case to argue that an individual at one of those last two stages (*Autonomous/Integrated*)

would not be as susceptible to the 'moral impediments' identified by the Global Lookout Panel. We could go further and say that the Global Lookout Panel was not obviously operating at that stage when it examined these 'moral impediments' as its language and findings would appear to indicate. It should be acknowledged that the second point might have been a deliberate strategy to report their findings in a manner that the bulk of its audience (*Conformist/Conscientious*) would find congruence with. Using adaequatio 'in reverse', so to speak. It should, however, be clear that a decision-maker who was operating from the *Conformist/Conscientious* stage would be subject to most of those 'moral impediments' if they faced matters raised by foresight research which required them to recognise and accept complexity, paradox and ambiguity rather than just solve a problem.

3 Where to from here?

The Millennium Project had the following to say:

> Futures research is the systemic study of possible future conditions. Its purpose is not to know the future but to help us make better decisions today via its methods which force us to anticipate opportunities and threats and consider how to address them. Foresighting activities cause impacts to organisations (or society) in a variety of ways most of which are extremely hard to measure. As a result, foresighting organisations tend to rely on high-level buy-in and public legitimisation as signs of their effectiveness.(**?**, p.1)

There is a paradox inherent in that statement.

If a researcher was to try and consider possible future conditions based upon an understanding of the world that it was made up of static categories and dualistic notions of reality then what value would that research have? Would it force decision makers to anticipate threats and opportunities? Would it obtain high-level buy in and public legitimisation? The surprise answer would to be to say that it might. It would not be the clarity and insight of the research that would carry the day; research undertaken from such a standpoint could probably be regarded as specious. No, what would carry the day would be the strong likelihood that such research would *accord with the viewpoint of the decision-maker*. Few moral impediments would be detected and the thus the likelihood that the research would be acted upon is high.

What, then, of the research of possible future conditions based upon an understanding of the world that it was a realm of complexity, abstraction, contradiction and paradox; a place where the observer had to accommodate or integrate these apparent conflicts rather than to try and 'solve' them. How would it be received? Would it get buy in? The answer is probably not, unless the decision-maker was able to comprehend the viewpoint. A decision-maker at the *Conformist/Conscientious* stage of development would be very likely paralysed by the moral and ethical minefield that the research presented. 'Where is the right decision to be found when all I can see are conflicting issues that seem to be odds with each other'?

Does such a paradox mean that only conceptually simple futures research can avoid the 'moral impediment' trap? Is that the way that futures research has to go to be acted upon? The answer to those questions must be no. Loevinger's research into ego development did not uncover a simple step-by-step process. Instead what emerged was a 'complexly interwoven fabric of impulse control, character, interpersonal relations, conscious preoccupations and cognitive complexity' (**?**, p.26). Development does not occur in a straight line but seems to be triggered by individuals encountering disequilibrium points at various points in their life, points where what used to work no longer does. What happens when these disequilibrium

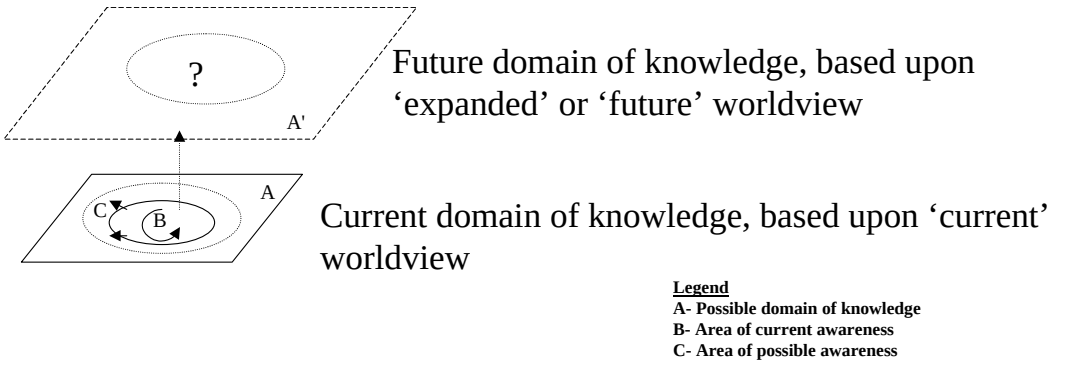

Figure 1: Simple representation of knowledge generation process

points are encountered is that the conception of self is impelled to find a new point of equilibrium, the self develops. Remove the disequilibrium and the energy to develop is also removed.

The consideration of possible future conditions is, of itself, a point of disequilibrium for the researcher first and the decision-maker second. Adaequatio impels the researcher to develop higher levels of understanding of what is to be understood. Ego development is but one of the possible measures of that developmental process. Disequilibrium, in the self-sense, creates greater capacity for abstraction, complexity and paradox in the individual. As the researcher develops then the output of that individual becomes the disequilibrium point for the decision-maker. What the Global Lookout Panel highlighted were the disequilibrium points for their decision-makers. What they called 'moral impediments' were issues that those at the *Conformist/Conscientious* stage saw as barriers to action. Decision-makers at later developmental stages would not see those same issues as 'either/or' problems but rather 'both/and' aspects of complexity that require acceptance and integration into decision-making. The path of development for the decision-makers at the *Conformist/Conscientious* stage was through those issues and not around them. They were the rungs that had to be grasped before the ladder could be climbed to a higher, broader and more expansive worldview.

4 The Way forward for Foresight

Futures research is a knowledge discovery process. Figure 1 is a simple representation of how futures research could contribute to that knowledge discovery process (**?**). At a particular stage of development an individual can be said to have a current 'domain' of knowledge. This means that in terms of their current stage of psychological development this domain is the sum total of all that they could possibly know (shown as the horizontal area marked A). Within this current domain of knowledge there is then an area (marked as B) which is that part of the domain that they are actually aware of. Further, at the edges of this area of actual knowledge is further knowledge, of which the individual is currently unaware, into which area actual knowledge could expand (marked as C). Finally there is the possibility that the individual's psychological development will *transform* to a new worldview. If that occurs then an an expanded domain of knowledge will be available (Marked as A'). This domain would build on the earlier domain but also transcend it.

The arrows in figure 1 indicate three possible roles that futures research could fulfill. Futures research could operate to *'confirm'* the knowledge that the individual is currently aware of (shown by the circular arrow in area B). Futures research could also *'expand'* the area of knowledge that the individual is currently aware of working at the edge of current knowledge (shown by the arrows moving into area C). Finally futures research could provide some of the energy and impetus for the individual *transforming* to a higher domain of knowledge - a movement towards adaequatio (shown by the arrow going to A'). In my view, the interest of futures research must be towards the second and third roles described above (i.e. expansion and transformation) and not the first one (i.e. confirmation).

Futures researchers must be aware which role their work is serving. While I have expressed a view that the interest of futures research would not be in the role of *confirmation* that does not mean that such a request would not occur. If asked to undertake this, the research would be presented within the decision-makers current worldview and the *acknowledged* view of what is knowledge. There would be no moral impediments arising here. If in the second role, *expansion*, the researcher would ostensibly doing *more of the same*, however methodology, data and presentation could all be altered to bring the 'expanded' area of knowledge into view. The 'openness' of the decision-maker to such an expansion of the boundaries of knowledge will largely dictate how far the edges can be moved. Discontinuities could occur but the futures researcher should be able to be surmount them if communication is careful and thoughtful. If the researcher is undertaking the third role, however, then the discontinuities will be great and the obstacles to transformation many. This role means a change in the consciousness of first the researcher and then the decision-maker. It may be that this role cannot be undertaken unless their is potential for such a transformation within the individual(s) with the power to act. This is where the leadership of the decision-makers become critical.

The duty of the leader/decision-maker must be to create an environment that is propitious for the expansion of knowledge within current worldviews and also one with the potential of transformation to higher stages. Those stages encompass an expanded knowledge domain and processing efficiency of the human mind is increased at those stages. This means, of course, that the leader/decision-maker must consider the development of their own consciousness and that of their staff. Without potential then expansion will be difficult and transformation improbable. The leader/decision-maker must encourage futures research that pushes the edge of current knowledge and that creates the impetus for transformation. Research that throws up 'moral impediments' to action has the potential to do both these things. The role of the leader/decision-maker is to move towards these dilemmas and not away from them. From the challenge of trying to wrestle with these 'moral impediments' will come the rewards of future domains of knowledge. Domains that would otherwise remain out of reach if the challenge is declined. Ultimately, the resolution to the moral impediments to foresight action lie within each individual.

References