

# The Transformative Cycle



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## ABOUT THE AUSTRALIAN FORESIGHT INSTITUTE

The Australian Foresight Institute (AFI) is situated in Swinburne University of Technology, Melbourne, Australia. AFI is a specialised research and postgraduate teaching unit. It was established in 1999 to develop an innovative set of postgraduate programs and research in the area of applied foresight. Apart from supporting the University in developing its own forward-looking strategies, its main aims are to:

- provide a global resource centre for strategic foresight
- create and deliver world class professional programs
- carry out original research into the nature and uses of foresight
- focus on the implementation of foresight in organisations
- work toward the emergence of social foresight in Australia.

AFI is intensively networked around the world with leading futures/foresight organisations and practitioners. These include World Future Society and the World Futures Studies Federation. In 2001, the Director of AFI was elected as President, World Futures Studies Federation. AFI therefore, has access to leading international expertise in the field.

AFI also offers a nested suite of postgraduate programs. Based on coursework, the programs are offered through the Australian Graduate School of Entrepreneurship at the University.

Overall AFI aims to set new standards internationally and to facilitate the emergence of a new generation of foresight practitioners in Australia. It offers a challenging, stimulating and innovative work environment and exceptionally productive programs for its students who come from many different types of organisations.

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## COVER ART – *In Fractal Cycles We Go Round*

Designed by Dr Cameron Jones, Chancellery Research Fellow,  
School of Mathematical Sciences.

These images were generated as part of The Molecular Media Project, that is concerned with science-driven art and design. This work is a meditation on space and time, and how events are partitioned across many different scales: real, imaginary and complex.

# The Transformative Cycle

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## Introduction

RICHARD A SLAUGHTER

I am delighted to introduce this AFI monograph on the Transformative Cycle, or T-Cycle for short. It has taken some years to arrive. The underlying concepts originated in my PhD on Critical Futures Study and Curriculum Renewal submitted in 1982.<sup>1</sup> There I had assembled a wide range of material that, overall, embodied numerous attempts to put forward ideas, proposals and propositions about the near-term future. What was clear then, however, and is even clearer now, is that most of these ‘new ideas’ were, and are, doomed to fail. I was intrigued as to why this should be. Later it became obvious that social systems must necessarily resist change, often for very good reasons. But that, of course, is only one part of the story.

In a chapter attempting to outline the essence of Critical Futures Studies, I wrote the following.

Taken alone, the work of individuals in the futures field does not take us very far. But together it illustrates what may be the ‘basic movement’ of critical FS. This is characterised by three broad phases, regardless of the level at which it is applied. These are:

1. Analysis of the breakdown of inherited meanings.

## 2 THE TRANSFORMATIVE CYCLE

2. Reconceptualisation via new myths, paradigms, images etc.
3. Negotiation and selective legitimisation of new meanings, images, behaviours etc.

This 'cycle of transformation' has analogues in other areas ... including myth, science, psychotherapy and creativity. Furthermore, the cycle has no end. Each resolution is temporary and provides a basis for further transformations.<sup>2</sup>

Five years later the first draft of a paper on the T-Cycle was published in a minor educational journal edited by a colleague at the University of Lancaster.<sup>3</sup> By then I was sufficiently confident that the T-Cycle could be more than a concept and perhaps a useful tool. I had trialled it in various workshops, published it in a compendium of such tools<sup>4</sup> and saw many uses for it with students and teachers. But then, for reasons given below, I did not attempt to promote it or take it any further.

It was some fifteen years later that, in the context of a number of AFI course units, its wider utility steadily emerged. What I'd considered a minor tool, at best, was taken up enthusiastically by a number of students who clearly found it useful in a wide range of contexts. Thus, when we reached a unit that considered various FS methodologies in depth it was included on the list. Luke Naismith's paper was one result.

Coming freshly to the topic, Naismith saw the T-Cycle in the light of other more recent models and approaches. In the paper he begins by considering a number of topics to which it can be applied. He then moves on to compare and contrast it with other models of change and transformation. A number of synergies and distinctions emerge. He correctly suggests that 'fundamentally the T-Cycle shares the same hermeneutic basis as Critical Futures Studies'. Indeed, as noted, that is exactly the context from which it emerged. Naismith is also able to see very clearly that transformations of meaning are closely associated with Wilber's two 'Left Hand' quadrants (those relating to the 'inner individual' and the 'inner collective' domains). He concludes that 'the transformative cycle is a useful tool for analysing the process of change at individual, organisational, societal or global levels. Its primary benefits lie in its capacity to provide a framework for understanding the triggers to transformation, opening up new possibilities and dealing with political and other issues...' He then adds that the approach 'is particularly useful when combined with other foresight methodologies to expand the model into an elaborated form'.<sup>5</sup> It is here that Neil Houghton takes up the story.

Houghton's interest is in relating the T-Cycle to complexity theory and to a number of other approaches and meta-theories. He refers to Senge and Scharmer's pivotal work on Community Action Research, to transdisciplinarity, and to the central role

played by human reflexivity. Finally he relates the T-Cycle to change based on four fundamental models or approaches: lifecycle, teleological, dialectical and evolutionary. Overall, what he and Naismith both demonstrate is some of the ways that the T-Cycle articulates with recent work in society, culture, complexity, change and transformation. This reflects both the growing sophistication of advanced futures thinking as well as its newly won ability to come to grips with some of the key underlying dynamics of the human and social world. Inevitably such gains will be seen by some as 'mere theory'. But advanced practitioners now understand more clearly than ever before how central to the further development of the futures/foresight enterprise such work really is.

Twenty years ago much effort was devoted to understanding and forecasting changes in the world 'out there'. Such empirically based work was not, and is not, without value. But it is mainly limited to the 'collective external' or 'lower right hand quadrant' domain. As such, it overlooked the entire range of personal and social factors that create and maintain both persons and societies. Scenario building then became popular – and in the right hands it could be very effective. Over time, however, it became clear that most scenarios were superficial, trite and largely unrelated to real world complexities. In brief, much of the reality of the social world was missing from them. Next we saw the development of Critical Futures Studies that drew attention to the 'inner collective' social domain. Finally, in more recent times, integral futures approaches now provide profound insights into all of the four basic domains, including that of the 'inner individual'. Formerly this had been ignored. But we can now conclude that *'depth in the practitioner is what evokes depth in whatever methodology is being used.'* This is a pivotal insight. Overall, what these developments add up to can be summarised in two words: methodological renewal. We may therefore conclude that FS and foresight work have never been better equipped to face the challenges and transitions that lie ahead.

The T-Cycle anticipated some of these developments. Currently it exemplifies aspects of critical and integral futures work. It is still not a theory of social change per se. But it has come long way from its first tentative expression hidden away in the depths of a PhD thesis. With the publication of this monograph it has finally emerged into the light of day to be used, abused, critiqued and extended in ways that are certain to surprise us.

I cannot help but wonder where it will go, and what further insights it may help to support, in the next twenty years.

## REFERENCES

- <sup>1</sup> Slaughter, R. (1982), *Critical Futures Studies and Curriculum Renewal*, PhD, University of Lancaster, UK.
- <sup>2</sup> Ibid p 288.
- <sup>3</sup> Slaughter, R. (1987), The Transformative Cycle, *Educational Change and Development*, 8, 2, pp 11-16.
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Richard A Slaughter  
Melbourne  
May 2004



# 1 | The Transformative Cycle: a Tool for Illuminating Change

RICHARD A. SLAUGHTER

## INTRODUCTION

Much writing about futures, and certainly most media productions dealing with futures subjects place a great deal of emphasis on external change. That is, changes in structures, buildings, technologies and environments. Yet underlying and mediating such material transformations are more subtle processes involving power struggles, values, languages and epistemologies. Some writers have attempted to address these underlying concerns but to my knowledge, few have approached the social/cultural/technical nexus of change by considering transformations of meaning.<sup>1</sup> Yet it is here in the human world of needs, symbols and purposes that all innovations and changes have their origin.<sup>2</sup> Furthermore it is in this inner world of value and meaning that changes in external environments exact their greatest toll.

Sensitive writers provide ample evidence for this view. For example, Donald Schon wrote eloquently of the ‘uncertainty and anguish’ experienced by individuals as the old order decays and the new is not yet clearly seen.<sup>3</sup> Dunphy articulates what is involved. He writes,

there is a deeper, more pervasive sense in which accelerating change affects our personal lives. Man is a symbolic animal and he seeks meaning in life.

He does not live by bread alone. It is at the symbolic level that change hits us hardest, because it so frequently tears apart symbols which have provided our lives with meaning and continuity.<sup>4</sup>

It is all too easy to get bogged down in discussions about meaning since the issues involved are far from simple and everyone brings unstated presuppositions to bear upon them. I therefore discerned a need for a structurally simple way of approaching the question of change and negotiations of meaning.<sup>5</sup> I wanted to cut through the complexity and provide a means of illuminating some of the main processes in a way that would reflect something of their dynamism, without being simplistic. The result of that search is a tool or technique that I called the transformative cycle or T-Cycle for short. It draws on some of my early work on Critical Futures study and suggestions made by O.W. Markley.<sup>6</sup> The paper outlines the basic four (or five) stage cycle, comments briefly on some of its proven applications and suggests other possible developments.

### OUTLINE OF THE BASIC T-CYCLE

#### Breakdowns of Meaning

Since the dominant mood in Western cultures is frequently one of uncertainty and decay of meanings I have found it useful to begin the cycle at this point. This stage can encompass a wide range of phenomena but basically it refers to understandings, concepts, values and agreements that once served to support social interaction but which now, for one reason or another, have become problematic. Under this heading we might wish to include concepts of work and leisure, health, sexuality, progress

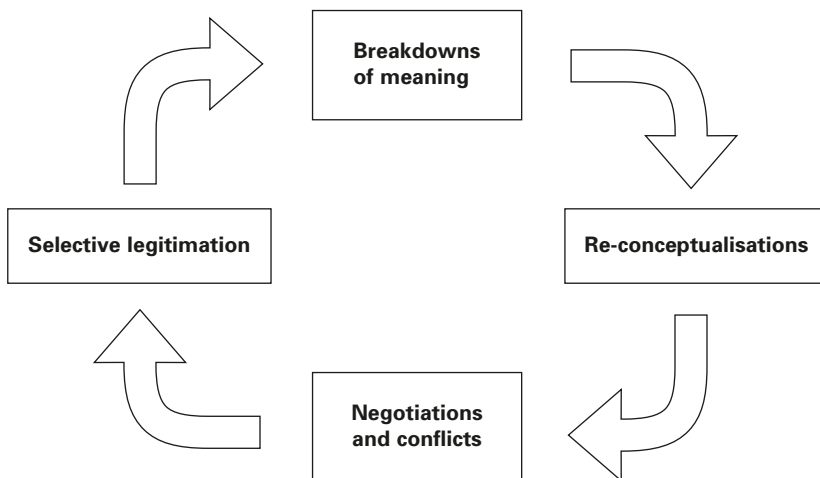


Figure One: The Basic Model



and defence. Each of these terms stands for a complex formation of ideas, understandings and meanings that once could be taken for granted because they reflected the prevailing ‘common sense’. Yet as Donald Michael and others have pointed out we now no longer have a firm and monolithic sense of what is ‘common’ (in the sense of being widely shared).<sup>7</sup> The technological revolutions of which so much had been expected proved to be more ambiguous and subversive than anyone could have foreseen.

It is tempting to see breakdowns of meaning as dysfunctional. But of course, while many breakdowns can be conceptualised as ‘problems’, that is not a necessary conclusion. If racism is becoming unpopular that could hardly be called a problem. Perhaps it is not becoming unpopular fast enough.

## RE-CONCEPTUALISATIONS

At any one time there are many ideas and proposals for change being put forward in a range of contexts and media: in books, papers, journals, TV programs, films, plays, artistic events and so on. By no means are all of these associated with the futures field. Yet the latter is one of the main social arenas rich in attempts to reconceptualise aspects of the human predicament. To look carefully at some of the field’s major works is to recognise that futures writers have long attempted to come to grips with a series of breakdowns of meaning and have put forward very many proposals.<sup>8</sup> A few of the ideas in circulation include: the social wage, non-nuclear defence, ecological ethics, post-patriarchal families and small-scale production for local needs.

But it is characteristic of new ideas that they almost invariably challenge existing structures and the interests embedded within them. Hence very many reconceptualisations fail to make any impact. Some of them are simply not good enough and may deserve to fail. Others may have great potential but they are put forward by powerless and ‘invisible’ groups (i.e., those with no media impact and no ready access to it). At any rate nearly all new ideas – particularly if they represent a significant departure from existing social perception or social practice – encounter disinterest or resistance. The former fall out of sight while the latter continue to the next stage.

## CONFLICTS AND NEGOTIATIONS

Conflicts arise for many reasons. If new ideas are pursued with skill and vigour then conflicts are usually inevitable. Just consider the reactions of the tobacco industry to anti-smoking lobbyists or the UK Ministry of Defence’s actions against the Greenham Common women, (who staged a long term ‘sit in’ against the importation of U.S. cruise missiles in the 1980’s), and the worldview they represent. In many cases an

older structure (and those whose self-interest it supports) perceives a threat to its continued existence and mobilise resources to defend it and repel the threat. Structures do not have to be particularly ancient to adopt this adversary stance. The nuclear industry provides many examples of this type of response (though the deployment of PR skills may sometimes appear to soften the conflict).

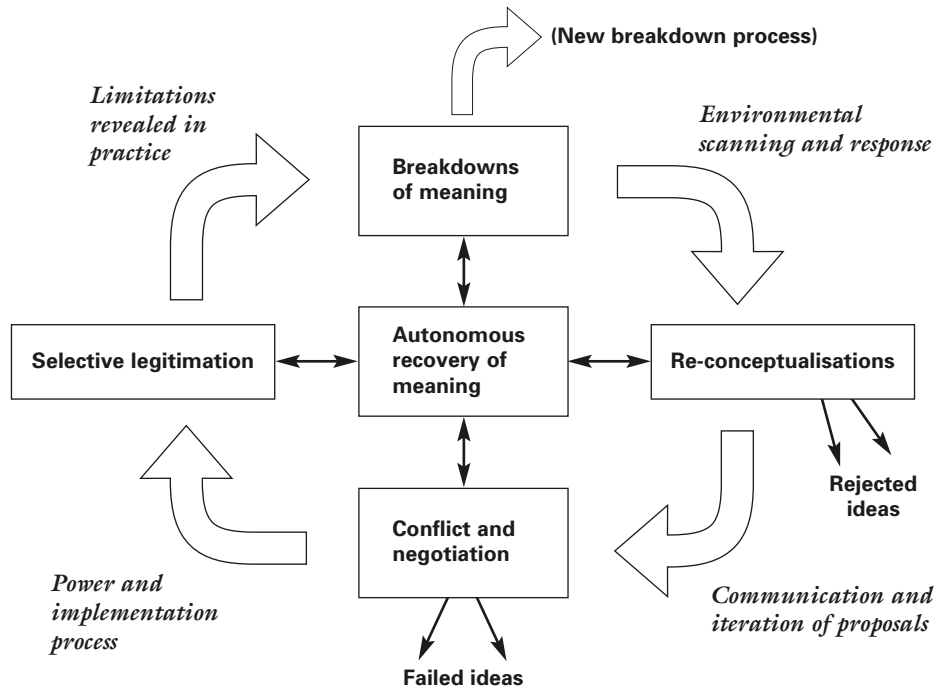
This part of the cycle could be split into two distinct stages since one cannot assume that conflicts will ever reach the stage of negotiation. To negotiate requires at least that the two (or more) sides are willing to listen to each other and therefore some presumption of parity – at least for the purposes of discussion – is needed. Where this equivalence cannot be created or sustained there is a profound difficulty for the would-be change agents. They may decide to give up or to re-assess their tactics. Some resort to violence and regress to terrorism. The path from conflict to negotiation is often a long and arduous one. It calls for high-level skills, persistence and support. Some conflicts get permanently ‘stuck’ at this stage. But in other cases a resolution is found and the conflict caused by the new impacting on the old is resolved. Some new suggestions are selectively legitimated.

### SELECTIVE LEGITIMATION

Far more proposals are generated at any one time than could possibly be taken up and implemented. Hence selectivity is essential. What gives some cause for concern is that we can make no presumption that selection criteria are fair or adequate. Nor can we assume that the ‘best’ proposals are adopted. Best, according to whom? So the model does not suggest that this process of change *necessarily* corresponds with notions of improvement. It may involve regression – as when popular protests are put down by force or when political factions resort to assassination or kidnapping.

Of course it matters greatly who accepts the newly legitimated proposals. The public realm itself can be viewed as one of the mainstays of the old order which has suffered under the onslaught of modernism. So it may well be that the process of selective legitimation directly serves particular interests and validates meanings which work against the majority. This has certainly occurred in certain Third World countries where the activities of various trans-national corporations can be seen in this light.<sup>9</sup>

Nevertheless, there are examples of legitimation that appear to represent tangible improvements in human welfare. Among the latter we might include the emancipation of women, the principle of sexual equality, environment protection measures, organically grown food, democratic elections and the UN Bill of Human Rights.



**Figure Two: An Elaborated T-Cycle**

Figure One showed the cycle in its basic form. But this is only a beginning. Figure Two depicts a slightly elaborated cycle. To begin with, at any stage there exists the possibility of ‘autonomous recoveries of meaning’. That is, processes that encapsulate all or part of the whole cycle without obvious reference to wider constituencies. One example of this is the Australian writer who had found a way of drawing on Aboriginal sources to create modern versions of nature spirits. He had incorporated the latter into a series of stories for children with the express aim of providing them with a more symbolically rich vocabulary of meanings to use in relation to the natural world. In my view he succeeded admirably.<sup>10</sup> Successful examples of this kind have the power to affect any stage of the cycle.

A more obvious elaboration follows from the fact that legitimated meanings will not normally return to the same breakdown process. The passage of time may well have altered the original context and hence the new meanings may be incorporated into a new, or renewed, synthesis. If the meanings involved are sufficiently powerful to attract wide support, quite new states and conditions of existence are possible (e.g., an effective bill of human rights). This is one major reason why futures may be studied and created but not predicted. It is also worth distinguishing between *failed suggestions*

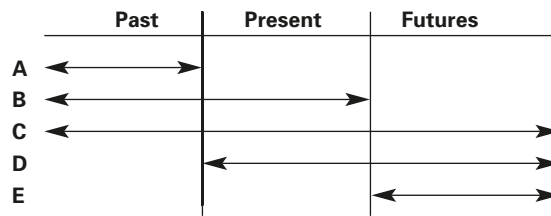
(i.e., those which did not achieve a serious hearing) and *rejected suggestions* that were simply ruled out of court. The first task of any new idea is for it to receive serious consideration! This applies both to those in positions of power and to ordinary people who have retained the capacity to co-create their lives.<sup>11</sup>

The cycle can be divided into four broad sectors (though there is some interpenetration between them). The first is an *environmental scanning* process that may be passive or active.<sup>12</sup> In the passive phase the breakdown is experienced as external and inevitable. In the active phase it is subject to critical analysis and some form of intervention. One result of the careful use of the T-Cycle is to help facilitate a movement from one to the other. In the second sector the dominant process is that of the *presentation and negotiation of meanings*. Here ideas are deployed and many fall away as noted above. It is noteworthy that empirical/analytic traditions of enquiry tend to de-focus this area and substitute a concern for empirical analysis or top-down models of forecasting and planning. Much the same could be said of the *power process* that draws on political, linguistic and epistemological sources.

The first task of any new idea is for it to receive serious consideration! This applies both to those in positions of power and to ordinary people who have retained the capacity to co-create their lives.

The T-Cycle can be run retrospectively, in the present, in the future or in some other combination of these. The basic options are set out in Figure Three. With option

A the cycle is applied retrospectively to an historical issue for which sufficient knowledge exists. In B the cycle embraces an issue that began in the past and remains current. In C there is access to the full temporal range. Here one may play ‘What if?’ games and speculate on the further evolution of well-recognised change processes. D begins from the present (which need not correspond with the notion of a fleeting moment) while E permits structured speculation about future possibilities. With such a wide scope and range of choices it is clear that one must be careful in defining one’s area of interest and in deciding what counts as evidence. For example, the term ‘breakdown’ may be too simple. Other processes may be involved – perhaps value changes or structural shifts of some kind. Re-conceptualisations may generate counter-processes that may take the form of an inhibiting backlash. Conflicts may rise and fall, moving in and out of focus. There is ample room for discussion about what might be meant by legitimation and exactly how it is achieved.



**Figure Three: Temporal Range of Uses of the T-Cycle**

## USES OF THE T-CYCLE

Despite the burgeoning complexities that threaten to overwhelm any such exercise, the T-Cycle has so far proved useful in three types of context.

### *1. As a general-purpose workshop and teaching tool*

Here I have found that the main value is in the way that the cycle enables people to contextualise their ideas and concerns. For example, those who are living through the breakdown of unemployment, poor housing, crime, divorce etc. often tend to withdraw from the wider scene and to feel depressed and helpless. Just to understand that such personal experiences are usually part of some wider process immediately takes pressure off individuals and facilitates a search for effective responses.

The tool also permits us to organise implicit knowledge into a meaningful pattern, to highlight relevant sub-processes and therefore bring into focus that which had been hidden. That is, to widen the frame of reference and the boundaries of concern. This is a useful skill and process in its own right. For Western cultures in fact occupy broad spans of time and space and yet in an often contradictory fashion deliberately encourage numerous regressions to a cramped and under-dimensioned present.<sup>13</sup>

I have used the T-Cycle with teachers and teachers in training, but it can also be simplified for use within schools by older students providing that specialised language is replaced with more suitable terms such as problems, suggestions and solutions. Students do require initial help both with collecting and assessing evidence and moving through the stages of the cycle.

### *2. As a tool for the analysis of change within specific institutions.*

The T-Cycle has been used with the planning division of a large technology institute as part of a professional development process. In that context, the exercise uncovered questions about institutional inertia, the specific ways that re-conceptualisations had been encouraged or frustrated, the main channels and modes of communication,

## THE TRANSFORMATIVE CYCLE

interpersonal factors, the varieties of direct and displaced conflict involved and the fate of meanings which had, at some time, and in certain specific ways, been legitimated. The discussions that arose were so rich and productive that it became necessary to add a further stage to permit selective closure on some of these questions.

### *3. As a tool for research and cultural criticism*

I suggested above that too much attention is frequently paid to the surface of technical and environmental change. This is partly because the surfaces of technologies are more visible than meanings, values and purposes. Dominant positivist and empiricist traditions

In my view it is essential to reclaim the initiative from abstracted technological imperatives, and their associated power structures, and to insist that the locus of identity and governance rests with people qua people and their autonomous notions of human need, human potential.

support approaches that emphasise the former and de-focus the latter. The identification of a whole era with a series of technical developments (i.e., the so-called ‘information age’, or age of ‘space exploration’) has become so commonplace that it can seem difficult to reflect on the consequences. But in my view it is essential to reclaim the initiative from abstracted technological imperatives, and their

associated power structures, and to insist that the locus of identity and governance rests with people qua people and their autonomous notions of human need, human potential.

The T-Cycle can therefore itself be understood as part of an approach to futures work that is centrally concerned with the *recovery of meaning*. As such its research potential is considerable. There are very many issues, dimensions of meaning, that have been taken away from ordinary people and handed over to experts and agencies of various kinds.<sup>14</sup> But the latter can never be relied upon to innovate in useful and convivial ways. Some have vested interests in obsolescent structures, meanings and purposes. On the other hand many of the most potent sources of social and cultural innovation lie at the cultural margins in the self-help groups, the citizen protest movements, the radical fringes and so-called counter-cultures.<sup>15</sup> It is here that the apparent abstractions of the model take on new life for as Ivan Illich once remarked, ‘the future cannot be planned it can only be lived’.<sup>16</sup>

## CONCLUSION ONE (1987)

The T-Cycle is a technique with so many ramifications that this discussion has necessarily been compressed and I have resisted the temptation to append numerous examples. The reader may wish to try that. I would, however, warn against the temptation to

reify the cycle. That is to regard it as an aspect of the ‘real’ world rather than a very partial account of it.

The view of pervasive change implied by the cycle does not show up important continuities of language, culture and tradition that lend a measure of stability-in-change. I personally think that some futures writers tend to stress change too much so I want to stress the importance of continuity and to caution against mistaking the tool for an account or theory of social change.

Nevertheless, as an approach to understanding the evolution of major issues it may be an aid to reflection, a tool of analysis, and a fairly straightforward way of representing changes of meaning. The latter are often experienced as being remote, impersonal, in some sense ‘out there’. Perhaps the major use of the T-Cycle is the way it permits individuals to set aside their feelings of helplessness and to engage more fully in the essentially human process of cultural innovation. By providing insights at this level it supports the view that technologies and the dilemmas they create may be influenced by the preferences, perceptions, actions and judgments of individuals and groups.

The T-Cycle can therefore itself be understood as part of an approach to futures work that is centrally concerned with the recovery of meaning.

I would like to suggest that this approach helps us to redirect our attention away from the overexposed and over-hyped external surfaces of technologies as they are continuously marketed and represented to us. As the prospects of purely technological utopias grow ever more improbable we can use tools of this kind to turn our attention back to the source: the vast continent of our own barely-explored inner life.<sup>17</sup>

## 2004 POSTSCRIPT

### Origin of the model

The original idea for the paper grew from my observation that certain well-known futurists began their careers by developing an account or critique of an issue or problem that they perceived to be confronting humankind. Over time, however, their work changed from what might be called ‘problem description’ to the ‘exploration of solutions’. Things then began to get interesting because the latter seldom appeared welcome. You might be lucky and see quick returns on your efforts. But it was much more likely that any attempt to create long lasting solutions, or social innovations, would take decades. Even then, nothing was certain. Hard-won achievements could be lost overnight. What was going on?

The model helped me to understand that question and I subsequently trialled it in a variety of contexts, some of which were briefly written up. But, although I had found it useful, I had no idea if others would. After all, it did pose something of a challenge to the conventional futures understanding and practice of the time. It suggested that many of the key dynamics of change were not ‘out there’ in the familiar outer world but, in some sense, ‘in here’ in the inner human world of meanings and symbols. But reliable maps of those inner worlds were lacking. I sensed that there were some important truths to be discovered, but was not at all sure how this might be achieved. So I continued on my own journey of discovery and innovation by working with an evolving set of ideas and practices that I termed ‘Critical Futures Studies’. Even though it proved useful time and again in hands-on workshops, I did not feel comfortable giving undue prominence to a largely untried tool. I was also uncomfortable with the habit of some who have sought recognition through self-promotion and the marketing of methodological fragments to the uninformed. Better, I thought, to let the T-Cycle rest and see what transpired.

#### Re-assessment in 2004

In 2002, the Australian Foresight Institute ran a course unit on futures methodologies and an outstanding student elected to take a closer look at the T-Cycle and to evaluate it as a possible tool for the foresight practitioner’s tool kit. At the same time other students had been using it to help map a variety of themes in their work. So, after having let this item ‘lie fallow’ for about fifteen years, it began to emerge again and, in so doing, in a sense ‘demanded’ to be taken more seriously. What this illustrates, yet again, is that processes of methodological innovation in Futures Studies are necessarily collective, not merely individual.

Re-reading the original paper in 2004 one cannot help but see things a bit differently. For example I referred to the subversive potential of technical revolutions, but it was then a little early to be aware of how subversive post-modernism, economic rationalism and global marketing would turn out to be. Nor was it yet clear how the use of a range of post-modern tools and perspectives of enquiry would become central to any intelligent view of futures work.

Some of the examples used are invariably dated. Not everyone will remember the extended conflict over cruise missiles at the Greenham Common airbase in the UK. On the other hand the perceived threat of regression to terrorism and violence proved more accurate than anyone at the time could have realised. Some of the issues addressed in the model have been starkly illustrated not only by the September 11, 2001 atrocity but also by the repeated outbursts of violent protests at the venues of world trade meetings. Something is clearly going on here that requires our attention and evokes stages of the cycle.



A strong theme to emerge from the original paper is the centrality of social construction in futures work. Questions of power and legitimation in the social order are inextricably bound up with the value laden normative concerns of all futurists. Consequently I have come to believe that it is naïve in the extreme to attempt to work in this area without a deep understanding of these processes. It remains all-too-common, however, for futurists to focus their attention on external realities while continuing to ignore the inner ones that make their work possible in the first place! The last sentence of the original paper made reference to the ‘vast continent of our own barely-explored inner life’. It is here that the most profound gains have been made in the intervening years.

A strong theme to emerge from the original paper is the centrality of social construction in futures work. Questions of power and legitimation in the social order are inextricably bound up with the value laden normative concerns of all futurists.

### From Critical Futures to Integral Futures

In retrospect it has become clear that critical futures work – the attempt to fully consider the social grounding of all human activity – was an essential stepping stone that led toward the even larger, broader and deeper perspective that we now call ‘Integral Futures’. The latter allows us to see where the great domains of human existence, both inner and outer, fit in a wider pattern. Moreover, within each of those domains there is a great deal of clarifying structure that brings depth understanding and keen insight to matters that had hitherto seemed to be too confusing and contested to permit satisfactory solutions.

Serious futures workers now have access to integral concepts, tools and methods with sufficient power to strengthen and transform their practice. In place of confusion there is clarity. Instead of weakness we have strong, durable methods and approaches. From working at the social periphery, Integral Futures workers can now work directly and powerfully with central social issues and concerns. These are huge gains.

The four quadrant meta-perspective is outlined elsewhere.<sup>18</sup> One aspect of it is what Wilber has termed the ‘eight native perspectives’. These are inner and outer views of each of the four domains. Since the T-Cycle operates centrally within the two Left-Hand (LH) quadrants, the four perspectives to be found there can be used to deepen our understanding both of the model and of the phenomena with which it deals. A careful analysis of the model suggests that it deals most centrally with three of them.

These are:

- the external view of social collectives
- the shared inner world of social collectives
- the unique inner world of the individual.

These are indicated on Figure Four. They lead us respectively into the following areas of enquiry.

1. Cultural anthropology, neo-structuralism, archaeology and genealogy.
2. Hermeneutics, collaborative enquiry and epistemology.
3. Phenomenology, introspection, meditation and the deep understanding of the waves, lines, streams, stages and states that together define inner human existence.

At first this may seem distant from Futures Studies as it has been understood. Yet consider the following: the breakdowns of meaning referred to in the basic T-Cycle refer to structures and discontinuities at the interface of the inner world of individuals and the inner aspects of social worlds. Or, in plain language, such breakdowns are about how a unique individual comes to terms with stresses and contradictions in the social context in which he/she lives. Put positively this can lead to what Beck calls ‘biographical solutions to systemic contradictions’.<sup>19</sup> Put negatively (i.e. as a failure of adaptation to circumstances) this is the territory of denial, avoidance, the regression to substitutes, violence, terrorism and suicide. The T-Cycle is only a first step toward mapping the complexities involved, yet that step can be a vital beginning.

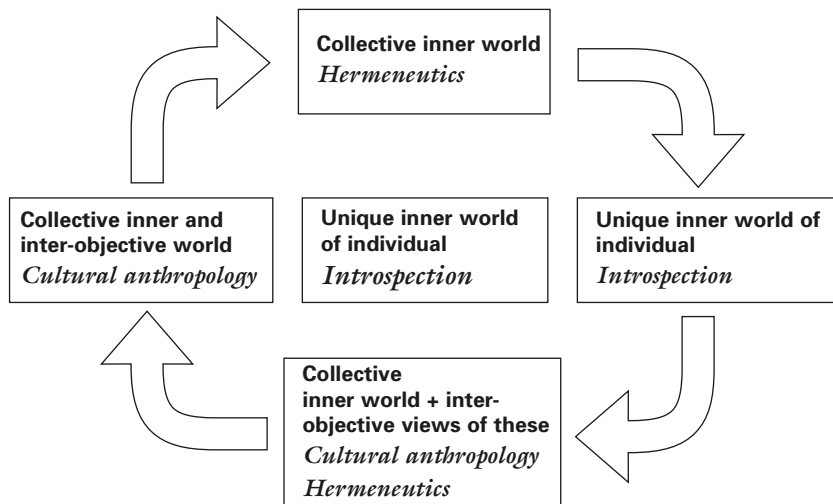


Figure Four: The T-Cycle and 'Native Perspectives'

If we consider the stage of 're-conceptualisations' we can quickly see that the individual's ability to operate here will be strongly determined by his/her level of development. To put the matter at its simplest, pre-conventional responses will be driven by basic ego and animal instincts. Conventional responses (that equate to the bulk of conventional planning and unsophisticated Futures Studies) will merely re-shuffle pre-existing elements in routine ways. It is only when we get to the realm of post-conventional insight and capability that we can expect to see the truly new, the novel and the extraordinary. The key point is this: the Integral perspective throws a challenging new light upon the practitioner, bringing into focus the adequacy (or otherwise) of his/her development. In a nutshell: conventional work will lead to conventional results. Post-conventional work will generate re-conceptualisations that are ground breaking and truly innovative.

To consider the issue of the selective legitimization of new social arrangements (social innovations) is to be pitched right into the heartland territory of social construction theory and practice.

When we come to the conflict and negotiation stage we are clearly dealing with the interface between the inner and outer aspects of the social collective. I would say that it is, in fact, impossible to be constructively engaged here without a deep understanding of, and grounding in, both worlds of reference. Here is where the hermeneutic interest in negotiating the shared inner worlds of collectives is central. It is interesting to note that hermeneutics was earlier seen as a component of Critical Futures Studies. Now it is revealed more clearly as a structurally vital part of the wider Integral frame.

Finally to consider the issue of the selective legitimization of new social arrangements (social innovations) is to be pitched right into the heartland territory of social construction theory and practice. This is the crucible in which social sanction is given or withheld. If the practitioner finds the area 'too challenging' or 'too deep' then he or she probably should not be operating here at all! Issues of social interests, social power, who gets to define and who gets excluded have emerged as central issues in critical and integral futures. Where these are not seriously and consciously engaged, futures work may well regress toward self-indulgent play disconnected from the worlds of reference of real people and dynamically evolving cultures.

## CONCLUSION TWO (2004)

The T-Cycle is not a model of social change but it does provide a way of gaining insight into some of the processes involved. It throws light on areas that would-be

innovators can usefully consider if they want to increase their chances of success. In the Integral context the model also points back to substantive areas of enquiry through which practitioners can deepen their understanding of complex social phenomena. This provides both a challenge and a rich opportunity to the futures/foresight profession to collectively up-grade its human and professional capacities.

## NOTES AND REFERENCES

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- <sup>3</sup> Schon, D. (1971), *Beyond the Stable State* London, Temple Smith.
- <sup>4</sup> Dunphy, D. (1972), *The Challenge of Change* Australian Broadcasting Commission, 19.
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- <sup>6</sup> See Markley, O.W. (1976), Human Consciousness in Transformation, in Jantsch & Waddington (eds.) *Evolution and Consciousness*, Addison-Wesley.
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- <sup>14</sup> Illich, I. (et al.) (1970), *Disabling Professions*, Boyars, London.
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- <sup>17</sup> See Huxley, A. (1946), *The Perennial Philosophy*, Chatto & Windus, London. Also Wilber, K. (1983), *Up From Eden: A Transpersonal View of Human Evolution*, London, RKP.
- <sup>18</sup> Slaughter, R. (1998), *Transcending Flatland: Implications of Ken Wilber's meta-narrative for futures studies*, *Futures*, 30, 6, 519-533.
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## 2 Transformative Cycle

LUKE NAISMITH

### INTRODUCTION

In Western societies, the archetypal and simplistic version of transformation is that of comic book superheroes. Typically, superheroes are mild-mannered nobodies leading unnoticeable average lives but when needs arise they transform into a crime-fighting and justice-delivering Superman, Spiderman, the Incredible Hulk or Batman. These archetypes illustrate the nascent desire of many people to transform themselves and rise up against oppression or crime and gain notoriety in an alter-ego form while retaining their anonymity to lead normal lives. This nascent desire is also a false desire as society contains many structures to form idols from its transformed heroes, be they sporting, community, political or military.

The notion of transformation is particularly important within the discourse of Futures Studies and the emerging discipline of strategic foresight. Transformation involves a holistic and deep change within individuals, organisations and societies. It covers both the inner change of people's attitudes and their belief systems as well as how these changes are expressed in behaviours at the individual and collective level. For students

The T-Cycle covers both the inner change of people's attitudes and their belief systems as well as how these changes are expressed in behaviours at the individual and collective level.

of Futures Studies, investigation into the dynamics of transformation can lead to an understanding of how preferred future environments could emerge. One could even argue that strategic foresight is primarily about personal transformation as in order to change the world out there, one first needs to change the inner world of perceptions, meaning and values to open the possibility for transformative external change to occur.

This paper will examine the notion of transformation as applied to foresight activities. Initially, transformation will be defined and described. Slaughter's map of transformation, the T-Cycle, will be used to illustrate the process of transformation. The applicability of the T-Cycle will be explored and comparisons to other change cycles will be conducted. Different perspectives of the T-Cycle will be discussed to elucidate its placement as an item within what has been called the 'infinite tool kit' of foresight practitioners and whether variants of the T-Cycle, both previously published and some new ones outlined in this paper, are merited. In conclusion, given these perspectives, the T-Cycle will be critiqued to assess its validity as a Critical Futures methodology.

## WHAT IS TRANSFORMATION?

Transformation is defined as a 'change of outward appearance or inner nature'.<sup>1</sup> In common parlance, transformation is deemed to have occurred when significant change has taken place over a relatively short period of time. It is this strength of change between two quite different states over a recognisable time period that signifies transformation. Gradual change over a long period of time without any identifiable trigger or causative event is often not considered to be transformation, even if the strength of change is quite significant.

Transformation can occur at a number of different levels from individuals to the level of organisations, large societies and global transformation. Individuals are seen to have transformed through changes in values, physical change, or lifestyle change. Organisations can be transformed through fundamental realignments of business strategy. Societies can be transformed when major scientific discoveries occur that challenge historical beliefs and reframe opinion. Global transformation can occur as a result of world war, climate change and new international governance structures.

Descriptions of transformation often compare two different states as if those states were static and that transformation is a process between these steady-states. Kuhnian paradigms illustrate this example, with changes between these paradigms assumed to have occurred relatively quickly and the paradigms themselves lasting for some time. This description mirrors that of punctuated equilibria in biological systems where disruptive change occurs quickly followed by a relatively lengthy period of stasis. Alternatively, the process of transformation can be viewed as continuously evolving



with the two points at either end of the transformation quite arbitrarily defined.

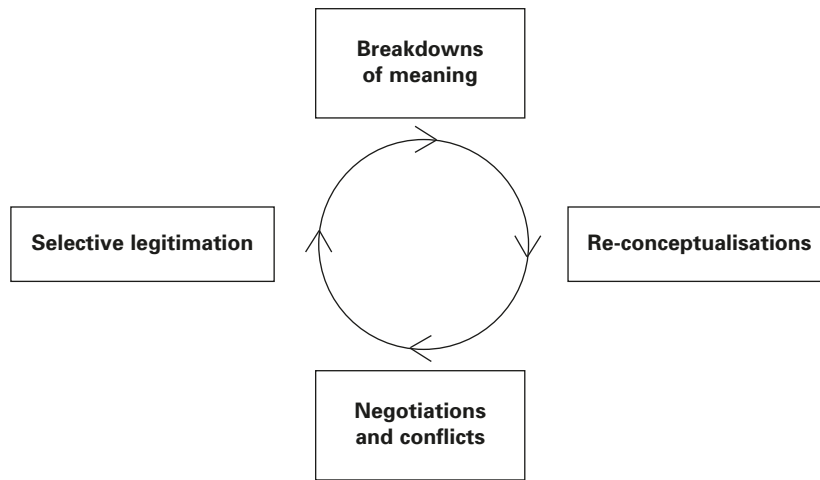
Transformation can also be viewed as the process of self-transcendence. Wilber<sup>2</sup> describes four fundamental capacities of holons; self-preservation, self-adaptation, self-transcendence, and self-dissolution. While self-preservation refers to a holon's capacity to preserve the coherent pattern it displays, and self-dissolution refers to the capacity to break a holon down into its constituent parts, self-adaptation and self-transcendence refer to changes in the make-up of holons. Adaptation or translation confines the holon to be part of a larger whole, in communion and interaction with the external environment and to accommodate any changes arising from this communion while retaining its own wholeness. Self-transcendence or transformation on the other hand, refers to a holon interacting with other holons to create a new and different whole. Transformation provides a vertical dimension, whereas translation is horizontal or flat. Hence, Wilber and Slaughter's use of the term 'flatland' to denote environments where stimuli are only translated according to the holon's internal deep structures, and the discounting of stimuli that don't fit these structures.

Transformation can occur a number of times to the one individual, organisation or society. It describes a portion of a dynamic process that continues before and after the transformation period. The process may also not necessarily be unidirectional as regression is possible to earlier states. Thus, transformation can be seen as a cyclical process, through interactions with other entities in a closed or open system.

### SLAUGHTER'S TRANSFORMATIVE CYCLE (THE T-CYCLE)

One of the leading futures theorists is Richard Slaughter, currently heading the Australian Foresight Institute in Melbourne. During the late 1980's in an educational journal<sup>3</sup>, Slaughter published the transformative cycle (or T-Cycle for short) as a tool that describes the process of transformation as proceeding through four stages. Slaughter later outlined the T-Cycle as one of the powerful ideas in the resource pack *Futures Concepts and Powerful Ideas*.<sup>4</sup> The T-Cycle was also published as a chapter in one of Slaughter's recent books *Futures for the Third Millennium*.<sup>5</sup> Despite these appearances, the long period of time since it was first published, and the extended discourse on societal transformation, this model of explaining transformative change has yet to be taken up as a widespread futures methodology by foresight practitioners or discussed and critiqued by academics.

The simplified version of the transformative cycle describes four phases of the process of transformation. These are breakdowns of meaning, re-conceptualisations, negotiations and conflicts, and selective legitimisation.



**Figure One: Simplified Transformative Cycle**

The process starts at the top of the diagram with breakdowns of meaning. This is where issues become problematic in the sense that the values and beliefs that sustain a common way of thinking fall apart. Emotional dysfunctions could result such as fear, guilt and doubt or conversely, positive change could be commencing arising from tensions within society such as greater gender or racial equality, greater work/family balance or the desire for peaceful over violent conflict resolution. The breakdowns being described at this stage of the T-Cycle process do not need to be harmful.

The second stage of the T-Cycle is that of re-conceptualisations. With meaning broken down, this opens the way for new possibilities to be opined, discussed, debated and considered. Many of these possible solutions will, of necessity, challenge the existing and traditional paradigm of thought, individual and collective values, social structures and cultural norms. Therefore, it is likely that many of these reconceptualised possibilities will fail to be adopted.

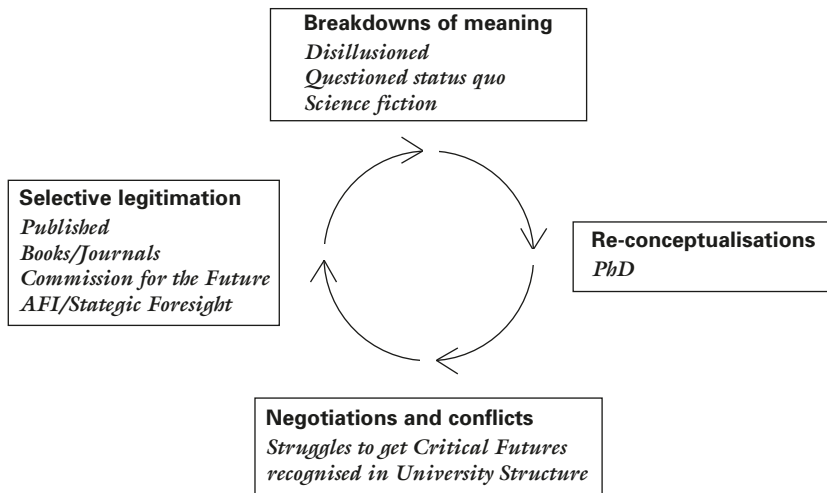
The third stage then is that of negotiations and conflicts where these reconceptualised possibilities are debated, considered and winnowed. Conflict will tend to occur when new possibilities that challenge the status quo are considered. Generally, traditionalist viewpoints will seek to undermine the views of change proponents while advocates for different new positions will attempt to outline the benefits of their view and point out the failings of others. An extended period of conflict could occur before some form of negotiation between parties occurs to find common ground.

The final stage is that of selective legitimization. This is where ideas, solutions, viewpoints and new values are taken up and implemented. In many cases, the ‘best’ solution

may not achieve selective legitimation. For example, market forces often adopt lesser performing standards such as the win of VHS over Betamax or the case of certain software products where timing, marketing strategies, and loss-leading can affect market uptake. Similarly, political expediency, trade-offs and societal tensions can result in a less-than-ideal social legitimation coming into existence.

The T-Cycle can be applied at a range of different levels from individuals to global society. The following diagram illustrates the T-Cycle as applied to an individual, in this case, Richard Slaughter. It describes the breakdown of meaning during the early stage of Slaughter's academic career, through to the exploration of re-conceptualisations during his PhD, significant and continued conflict and negotiation to get Futures Studies considered as an educational program and selective legitimation through publications, his stint with the Australian Commission for the Future and currently heading the Australian Foresight Institute, its programs of social innovation, and its academic postgraduate courses. In this particular example, the T-Cycle is used as a narrative to illustrate a transformational process.

**Subject: Richard Slaughter**



**Figure Two: T-Cycle applied to Richard Slaughter**

### TRANSFORMATION IN INDIVIDUALS

The above example illustrates the transformation cycle as applied at an individual level. In the literature on futures and sociology, most of the focus is understandably at the collective level. However, Wilber's Integral map emphasises the importance of the individual's consciousness as 'inextricably intermeshed with the objective organism

and brain; with nature, social systems, and environment; and with cultural settings, communal values and worldviews'.<sup>7</sup> Holarchically, transformational change at the collective level requires transformational change at the individual level.

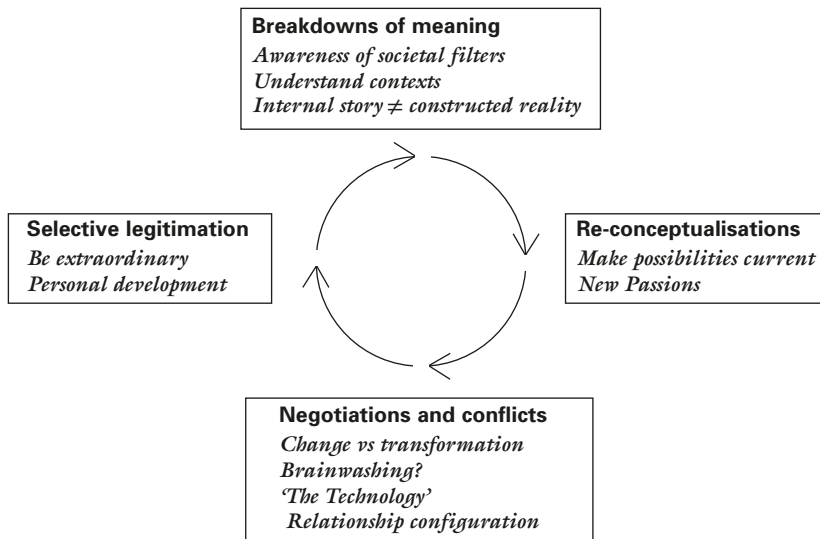
In order to commence the transformation process, a trigger is normally required. There are many triggers for individual transformation, and these can arise in a range of different manners such as at a physical or emotional level, and can be negative or positive in their orientation, as seen in Table One.

	<b>'Negative'</b>	<b>'Positive'</b>
Physical	Disability	Cosmetic Surgery / Diet / Fitness
Intellectual	Brainwash/Cult	Insight, Academic Course
Emotional	Loss (Death)	Family Reunion
Spiritual	Satanism	Pilgrimage/Retreat

**Table One: Triggers for Individual Transformation**

These negative or positive images serve only to reflect differences. In some instances, a 'negative' disability may trigger transformation to more advanced and 'positive' societal values. Conversely, a 'positive' image of cosmetic surgery, while appearing to offer positive transformative value, may not actually transform values but further entrench 'negative' worldviews within a different outer shell! Other instances that trigger transformation include travel and exposure to other cultures, initiation rites of passage to adulthood, and corporate leadership courses that uncover personality traits of self and others. One of the most oft-cited triggers of transformation at an individual level is that of near-death experience or dealing with life-threatening illnesses where people may undergo a spiritual and emotional renaissance and change their outlook to life dramatically.

Many people within Australia are undergoing their own personal transformation through the assistance of guided groups such as Landmark Education's Forum. The Landmark Forum Syllabus outlines that transformation is possible with the stage 'set for people to engage powerfully with the material, maximise the value of their participation, and produce unprecedented results in a short period of time'.<sup>8</sup> The Forum consists of three days of intensive sessions that are designed to raise awareness of filters and the limitations they impose, becoming open to change, constructing and defining a new identity to redesign your life as a free and authentic expression. The following diagram illustrates the T-Cycle as applied to this program.

**Subject: Landmark Education****Figure Three: T-Cycle applied to Landmark Education Forum**

In this instance, it can be clearly seen how personal transformation occurs during the Landmark Forum. Firstly, meaning is broken down through making participants aware of the context and how reality is constructed. New possibilities are then explored. The negotiation and conflict stage is perhaps the most controversial as it is here that many participants are asked to confront the pattern of their existing relationships and where conflicts often occur with non-participants. Selective legitimation is achieved at the conclusion of the Forum through continuing feedback on personal development and exploring one's passions.

Within Western industrial society, one of the current difficulties is dealing with its troubled youth who are undergoing their own physical transformation post-puberty, exploring their own sense of power, while dealing with schooling and emerging relationships. Many theorists point to the lack of initiation into adult society for this group who consequently remain lost during their school years until they become adults. Many older societies had initiation structures such as Aboriginal initiation rites or rites of passage through attainment of their first kill. These rites served a legitimation role for the youth to enter into adult society. The significant number of youth using Landmark Forum as a transformative process is potentially troubling if the conflicts that arise are not handled sensitively and if overdependence results on the limitations of their methodologies.

## TRANSFORMATION IN ORGANISATIONS

There has been considerable discussion in management circles over the past twenty years on the importance of transformation within organisations. Cultural change, process improvement, knowledge management, strategic thinking and charismatic leadership are all avenues for enacting transformation within organisations. Triggers for transformation within corporate organisations are most often financially based, and include pressures from new competitive threats, advances in technology, and forces of globalisation that allow for greater reach into different markets.

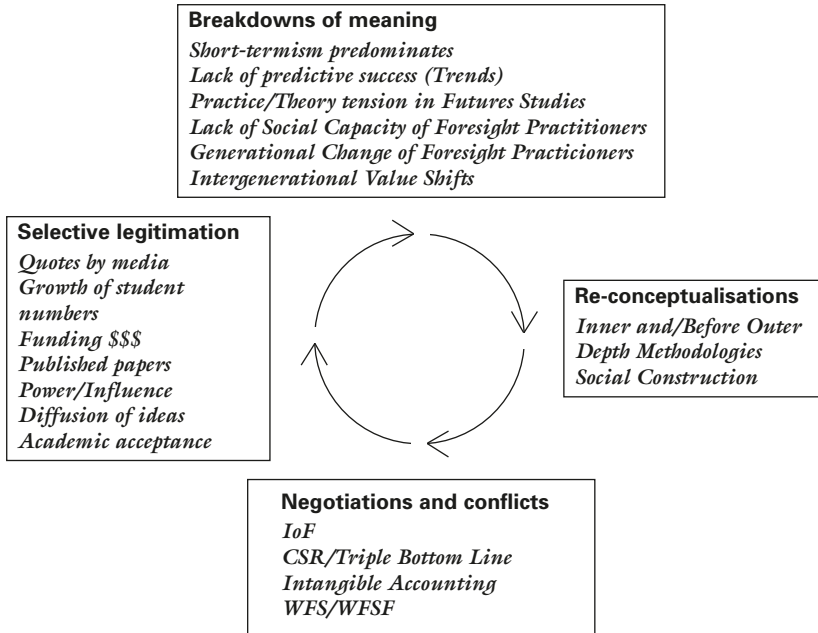
There are many examples of organisations that have undergone transformation as their existing business models come under pressure. Some examples of technology companies include Nokia and its change from being a forestry business to a major global telecommunications companies, IBM and its change from business models based on proprietary software and hardware to embracing the open source movement and Linux, and Microsoft who realising that the Internet was going to become a major technology trend did a complete about-turn in their business model to give away a free browser with their software.

Each of these companies demonstrates an example of the ability to learn and adapt from changes in external environment. This is one of the factors that de Geus<sup>9</sup> considers pertain to long-lived companies. Others include building a persona, awareness of its ecology and governing its own growth and evolution effectively and conservatively. In particular, de Geus identifies two types of learning; by assimilation and by accommodation. Learning by assimilation is akin to Wilber's self-adaptation while learning by accommodation of internal structural change in beliefs, attitudes and ideas is like Wilber's self-transcendence. The latter is described as experiential learning and de Geus considers that this type of learning needs to be accelerated for competitive advantage to be maintained.

An illustrative example of organisational transformation is that of the Australian Foresight Institute (AFI), located within the Swinburne University of Technology in Melbourne. The Institute has only recently been established. Its transformation is therefore really a process of evolution as it grows and develops. Breakdowns of meaning in this diagram are more to do with the reasons for its establishment and development rather than a radical change from its early state. These include the major global problematique as described in the futures literature, the emergence of values shifts in the wider population and the desire to develop social and strategic foresight capacity.

Re-conceptualisations refer to the predominant methodological bases of the AFI that of Wilber's Integral mapping, depth methodologies and social constructivist theory. These open up possibilities for plausible and preferred futures to be explored. Conflicts

**Subject: Australian Foresight Institute**



**Figure Four: T-Cycle applied to the Australian Foresight Institute**

and negotiations can be either within the futures field such as the differences of opinion between the World Future Society (WFS) and the World Futures Society Federation (WFSF) or it could be within strategic foresight with the role of different accounting measures that provide measures focused on sustainability and social interests rather than simply gross financial measures. Finally, selective legitimization looks out to how the AFI can gain further influence into the future.

**TRANSFORMATION IN SOCIETIES AND CULTURES**

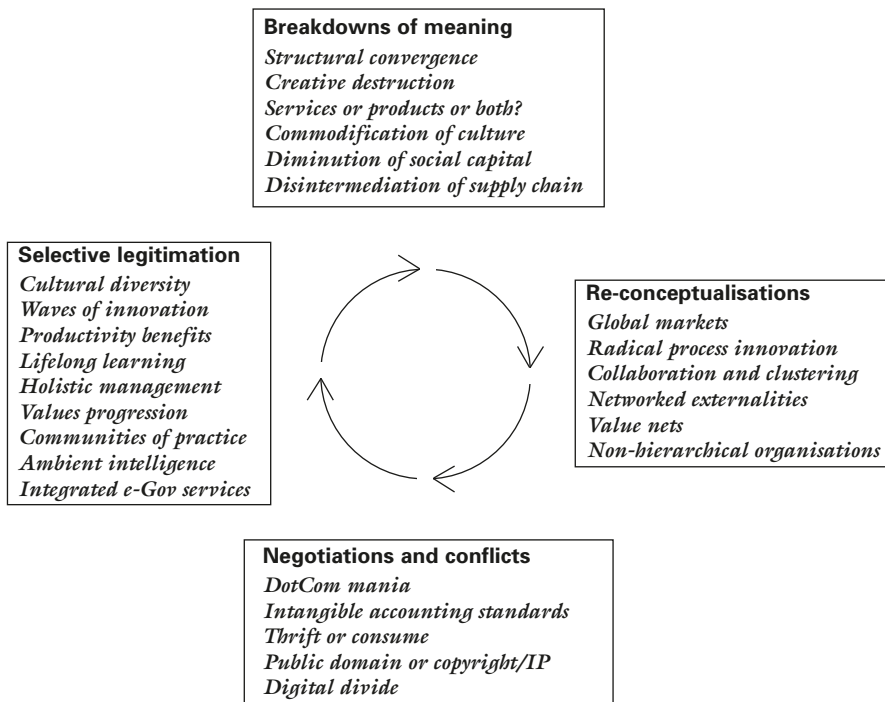
Within the futures discourse, the notion of transformation is generally considered at the societal or global levels rather than individual or organisational. Futures writers and practitioners envision different perspectives of the future and outline how society needs to be transformed to realise those futures. Macrohistorians analyse the way that societies transform themselves over extended periods of time. Ecological, cultural and social commentators<sup>10</sup> question the unsustainability of current societies and identify their desire for transformation to new values and behaviours to achieve sustainability.

The T-Cycle provides a useful mechanism for detailing the process and stages to be undertaken to achieve preferred futures states of societies. Breakdown occurs when

tensions arise within societies through the impact of external forces or internal opportunities. This tension, if sufficient, could lead to new possibilities being actively explored and a select number of these possibilities negotiated. All societies have had internal conflicts arise between advocates of change and traditionalists who wish to keep the status quo. If these conflicts can be successfully negotiated, then some of this small number of possibilities can be legitimated and transformative change can occur.

One of the major changes occurring in many existing societies is the change from a manufacturing economy base to that of a services economy that is based around the use of digital infrastructure and a focus on knowledge as a key economic resource. This is causing fundamental shifts in the socio-economy with investment flows being directed towards knowledge-based areas that offer higher growth prospects and away from traditional primary and secondary industries.

**Subject: Information Economy**



**Figure Five: T-Cycle applied to the Information Economy**



Figure Five outlines a transformative process for the development of an information economy. It shows that breakdown occurs in a range of areas from changes in business models and industry structure to a reduction in trust and cultural and entertainment becoming monetarised. New possibilities emerge with different organisational structures, global reach for services, and streamlined processes across the value chain. Conflicts arise in a range of areas and have been most noticeable with the digital divide, copyright and intellectual property issues and the manic conduct of financial markets with popping of the dot-com bubble. Selective legitimisation is emerging across the economy but remains patchy with only some segments of the economy having reached a transformative state.

Much current thinking considers that this societal change will transform advanced societies to another plane; from hunter-gatherer to agrarian to industrial to informational. Such Spencerian-type progressive thinking discounts other macrohistorical perspectives that occur within this progression at a more detailed level. Cyclical macrohistorical theories consider transformative patterns to repeat themselves. Khaldun's cycle goes from conquest to consolidation to a peak of blossoming then a decline through living off the capital to waste and squandering before conquest leads to the cycle afresh. Spiral theories aim to include both the linear and cyclical perspective. As an example, there are four stages to Sarkar's power cycle; worker, warrior, intellectual and capitalist.<sup>11</sup> Through the ideal form of inclusive leadership that retains a diverse society, the degenerating influences of the cycle could be eliminated and higher progression is possible as the cycle renews itself.

Considering these macrohistorical perspectives helps to balance the pull of the future (normative futures) with the push of the future (trends and technological determinism).<sup>12</sup> Transformation could occur from a variety of sources including creative minorities (Toynbee), gender (Eisler), the elite (Mosca), or culture (Spengler). Each of these perspectives generates its own breakdown of meaning, triggered perhaps by fear, power struggles or self-destruction.

In current society, Marien considers that there are three main categories of transformational thinking. Those that favour conscious evolution consider that active evolution is required.<sup>13</sup> This normative perspective suggests that global humanity needs to be steered towards greater responsibility, integration and ethics. Prophetic and feminist futures include visions of combining the empirical with the spiritual and strongly emphasise the feminine aspects of transformation. His final category is that of environmental sustainability, a new ethic that guides humanity's relationship with nature.

### EXTENDING THE T-CYCLE – THE ELABORATED T-CYCLE

The above examples of the application of the T-Cycle illustrate its simple version. Slaughter has also described an elaborated T-Cycle with feedback loops at each stage of cycle that can achieve an ‘autonomous recovery of meaning’.<sup>14</sup> In addition, he describes sub-processes of the T-Cycle to progress from any stage of the cycle to the next.

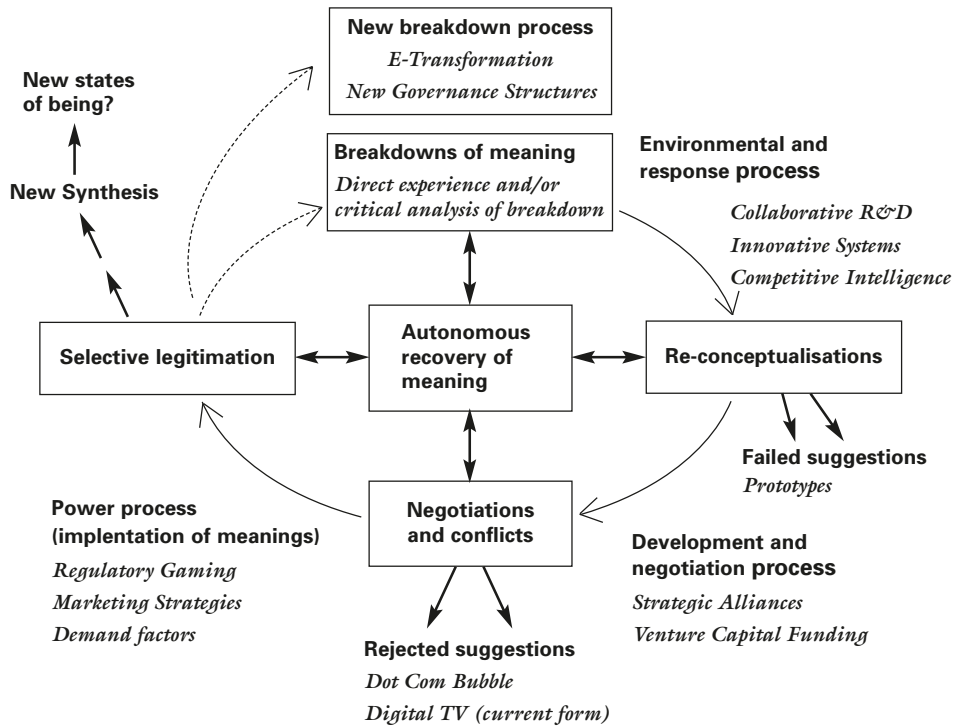
Environmental scanning processes can occur to identify possible re-conceptualisations. Environmental scanning necessitates learning from external factors but also ‘developing perceptions and generating meaning through interpretation, using memory and past experiences to help perception, and taking action based on the interpretations developed’.<sup>15</sup> This learning forms a cycle in itself that links perception (the classification of objects and recognition of items of interest) and interpretation (finding meaning from analyses) with memory. Fundamentally, memory does not just consist of established rules or procedures but includes the beliefs and worldviews that are embedded within culture. Transformation often entails the challenging and alteration of these beliefs and worldviews.

Deployment processes can occur after new possibilities are unearthed to negotiate their meaning. If an overly controlling and scientific approach is undertaken during this time, it is quite possible that suggestions are discounted before they can be properly considered. Incumbent companies that dominate the market often fail to realise the importance of disruptive innovation and reject these suggestions out of hand. Leadership that is open to radical suggestions and procedures that foster innovation is important to reduce the proportion of failed suggestions. Power processes are similar to deployment processes as they entail the active encouragement of those negotiated and resolved meanings to achieve selective legitimisation. An Australian example is that of the multicultural debate that led to changes in the make-up of society.

At any stage of the cycle, meaning can be established without the requirement to traverse through each stage. This is when people actually ‘get it’, and it could be when current meaning has broken down, or it could be when re-conceptualisations are considered, or it could be during negotiation, or it could finally be when legitimisation is accomplished.

Figure Six expands the previous diagram of the information economy as an example of the elaborated T-Cycle. The networking inherent within the information economy leads to more collaborative environmental scanning activities, strategic alliances being formed to assess the merits of novel ideas, and regulatory gaming from some companies to limit the damage from new external ventures or promote their own. New breakdown processes emerge, such as networked team structures within organisations, SOHO workers and outsourcing.

**Subject: Information Economy**



**Figure Six: Elaborated T-Cycle as applied to the Information Economy**

**COMPARISONS WITH OTHER CHANGE CYCLES**

Slaughter’s T-Cycle can be compared with other change cycles. The prevailing orthodoxy within Western industrial society is towards the pre-eminence of technologically driven forces to generate productivity improvements, structural change and for innovation for organisational and economic growth. Change is viewed as driven in a progressive manner by technology. One of the most cited methodologies to describe this change process is the Gartner Hype Curve that describes how particular technologies are adopted over time.<sup>16</sup>

There are five parts to the Gartner hype curve. The Technology trigger is some event that attracts industry interest. The Peak of Inflated Expectations is when high levels of activity are occurring but with mixed success. This leads to the Trough of Disillusionment when the technology becomes unfashionable as it did not meet the expectations. The Slope of Enlightenment is when the technology is re-tried and its

benefits identified in a simpler or niche capacity and finally, the Plateau of Productivity is when the technology is stable and consistently performs. Some technologies may take only a few months to complete their progress along this curve while others could take many years.

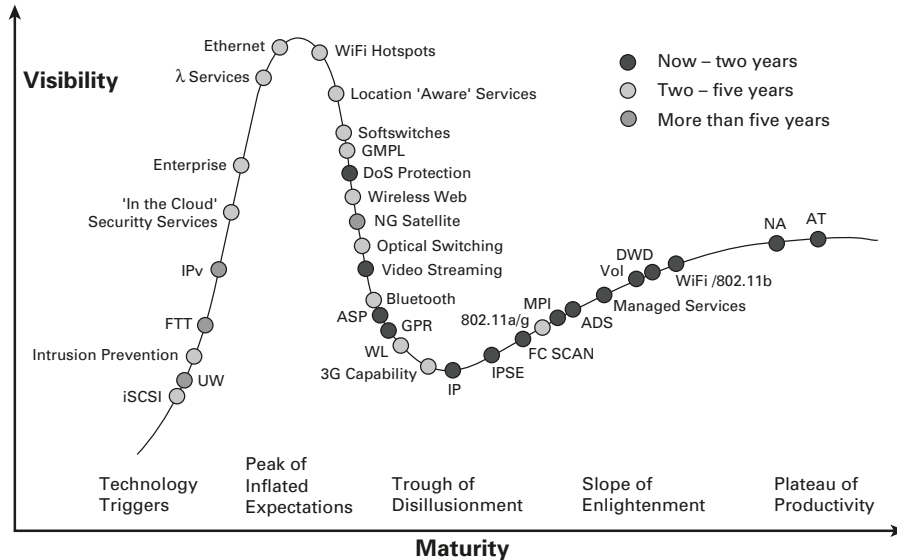


Figure Seven: the Gartner Hype Curve

While some of the technologies described by the Gartner Hype Curve have transformative potential, the basis of the methodology is adaptive rather than transformative. Visibility is its vertical axis, a measure that excludes any notion of progression or advancement apart from that assumed as determined through the adoption of the technology. In effect, the Gartner Hype Curve provides a more detailed perspective of the lower part of the T-Cycle. Gartner's view has no breakdown of meaning which is why transformation cannot be said to have occurred. The technology trigger is a suggestion arising out of the re-conceptualisation and the three central stages of the curve are part of the deployment, negotiation and power phases. Selective legitimation is achieved when the technology is successfully deployed in the final stage. The Gartner Hype Curve is essentially linear; there is no spiral or progression apart from in the flatland plane of adaptation.

This does not mean that all technologies only have adaptive potential. Christensen<sup>17</sup> separates different forms of innovative technology according to their potential to disrupt or sustain existing structures. Sustaining technologies are adaptive in that they foster improved product performance. On the other hand, disruptive technologies bring a different value proposition and while they generally under perform established products

in mainstream markets in the short term, they have other features that early adopters value. Through development, disruptive technologies become simpler and cheaper and as sustaining technologies tend to overshoot customer needs, the lower price points of disruptive technologies attract mainstream markets and structural transformative change results. Christensen further adds that incumbent firms find it very difficult to invest in disruptive technologies as their customers don't want these technologies. In this case, the breakdown of meaning occurs as tensions arise from the over-development of sustaining technologies, re-conceptualisations are the disruptive technologies themselves, negotiations and conflicts are the market dynamics and selective legitimisation is the end result of transformation to the structure of the market for technology suppliers.

Another example of transformative change is that described by Ervin Laszlo, President and Founder of the Club of Budapest, whose mission is to be a catalyst for transformation in a sustainable world with a particular focus on cultural consciousness. Laszlo describes evolutionary surges to higher levels. These surges occur after chaotic processes disrupt a period of relative stability.<sup>18</sup> A system starts oscillating away from its equilibrium and hunts for new possibilities. These new possibilities may not work and hence the system could cease to exist, or the new possibilities may fall short and a further oscillation may be required to reach a new equilibrium at a different level.

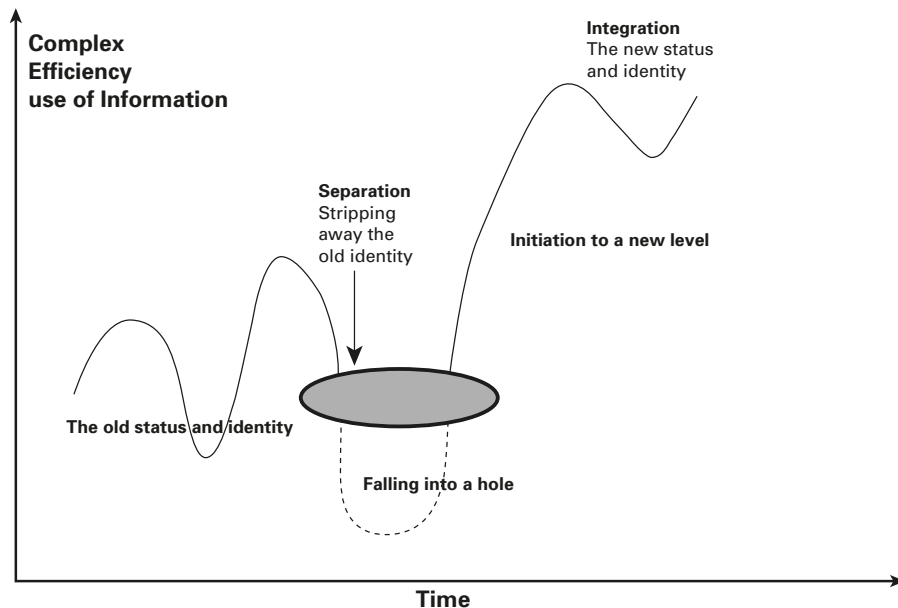


Figure Eight: Rites of Passage as a special case of Laszlo's General Evolution Theory<sup>19</sup>

A special case of Laszlo's General Evolution Theory as depicted in Figure Eight maps quite well against the transformative cycle. The three stages of Rites of Passage are Separation, The Between and Integration, a transformation to a new state. The increasing oscillations away from the old status and identity match that of breakdowns of meaning and stripping away the old identity. The Between area is where re-conceptualisations are proposed to attempt to shift to a new equilibrium level. Negotiations and conflicts occur throughout the period of oscillations but particularly through the falling into a hole phase as new ideas are attempted. The power phase of the elaborated T-Cycle occurs through the upward slopes. Selective legitimisation is achieved with the progress to a new status and identity.

### TRANSFORMATION WITHIN FUTURES DISCOURSE

The concept of transformation is omnipresent within the futures discourse. Apart from the discussion above of transformation considered at the level of societies and cultures, transformation within the future discourse often concerns envisioning futures. Futures theorists and practitioners working in the field envision normative futures that are often radically different from the present, and discuss how those futures can be obtained and sustained through transformative processes. Many futures workers believe that transformational change is required in society to repair its ills while the prevailing societal worldview of planners, business, the media and politicians see that steady-state or adaptive change only is required.

For futures practitioners, transformative action at the organisational level may require different positions to be adopted. Hines identifies five different organisational positions for foresight practitioners; the inside-outsider, the stealth, the evolved, the planners and the public voice. In particular, he mentions that,

the inside-outsider must be mobile and not place a high value on having a long-term career in the organisation, because to be most effective he or she must be willing to commit career suicide on a regular basis.<sup>20</sup>

In effect, when futures thinking starts inciting transformational thinking within the organisation, then either the practitioner will be removed by the powerful incumbents who do not wish to be deposed or successors will be more appointed who are more suited to running a transformed system than the instigators of the change.

Slaughter has described 'transformational futures' as those futures where human and social evolution match that of scientific and technological development.<sup>21</sup> This Integral perspective is at odds with the current scientific and technologically dominated world and encourages the exploration and development of individual people and culture.

Slaughter seeks a future world that understands that growth is not just translational through a flatland by adaptation without underlying structural change but transformational in a vertical dimension by transcending the abyss of Modernist industrialism.

Where are the seeds for this dream of leading futures practitioners towards societal transformation? Is it as Toynbee claims in the work of a creative minority? Could Paul Ray's cultural creatives be the groundswell of people that change the flatland progressive growth of Modernists? Or will a crisis emerge that engulfs the Modernists, bypasses the traditionalists and requires a transcendental approach that integrates technological and cultural progress?

There are many dystopian pictures of such a crisis from global climate change to Huntington's civilisational clashes to extropian visions of human/computer melds. Alternatively there could be positive triggers to such transformation from the success of political challenges to orthodoxy, a myriad of social innovations, or a spiritual and/or environmental renaissance that dampens the pull of technology-laden futures. Triggers could also include some of Peterson's wildcards such as contact with alien life forms.

The T-Cycle is neither an input to the foresight process like environmental scanning, part of the foresight process of analysis, interpretation, and prospection, or part of the output. It is, in fact, none and all of the above. The T-Cycle is another framework for mapping the foresight process.

## THE T-CYCLE AS A METHODOLOGY IN THE FORESIGHT PRACTITIONER'S TOOLKIT

Unlike other foresight methodologies, the T-Cycle does not sit comfortably within the generic foresight process.<sup>22</sup> The T-Cycle is neither an input to the foresight process like environmental scanning, part of the foresight process of analysis, interpretation, and prospection, or part of the output. It is, in fact, none and all of the above. The T-Cycle is another framework for mapping the foresight process. Other foresight methodologies such as environmental scanning nest within the T-Cycle to seek new possibilities in the re-conceptualisations phase.

The T-Cycle could be usefully employed in a variety of settings. Slaughter describes three in which it has proven useful.

1. As a general-purpose workshop and teaching tool, it helps to contextualise ideas and concerns by opening out possibilities and encouraging the exploration of the dimensions of solutions.

2. As a tool for the analysis of change within specific institutions, the T-Cycle can be used as a narrative to explore facets of the change process.
3. As a tool for research and cultural criticism, it helps focus on the constructivist elements of meanings, values and purposes that underpin surface technological and environmental changes.<sup>23</sup>

Actually applying the T-Cycle in a workshop environment may not be as straightforward as it seems. Two approaches present themselves; brainstorming issues and placing them at some point on the T-Cycle, or a linear approach of working around the cycle and listing items under each phase. For participants unused to the T-Cycle, the linear approach may be preferable. Problem areas would present themselves quite quickly and are easy to list under breakdowns of meaning. Identifying new possibilities follows the standard brainstorming technique of listing ideas without detailed analysis of their merit. Foresight practitioners who have used this methodology in workshops have stated that, at this stage, it may be better to advance to the selective legitimisation stage and look at what is the desired state or, ideally, to have listed items under this stage at the commencement the workshop prior to breakdowns of meaning so that a target can be established.<sup>24</sup> Conflicts and negotiations can then be debated and strategies identified and prioritised to enlist power processes to achieve selective legitimisation of desired states.

The elaborated T-Cycle is one example of extending the simple cyclical model. Another development is the use of other foresight methodologies within the T-Cycle process. Environmental scanning is already mentioned in the elaborated T-Cycle as a sub-process to identify new re-conceptualisations. Other inputs to the foresight process such as business and competitive intelligence, Delphi, and science fiction could also be used to explore this area as could visioning exercises and wildcards. Depth methodologies, such as Causal Layered Analysis, which explores points of difference to uncover multiple worldviews and their underlying myths and metaphors could be employed to analyse the breakdowns of meaning phase of the T-Cycle and assist in understanding the negotiations and conflicts phase. Similar depth methodologies such as systems mapping and the Integral Operating System could also be used.

## VALUES AND THE T-CYCLE

When transformation occurs arising from a breakdown of meaning, often changes in values occur as a result. Each of the stages within the Gravesian or Spiral Dynamics framework represents a change in values and hence, could be defined as a transformation as each stage, or substage if entering or exiting, is progressed, at an individual or collective level. The current tensions between Traditionalists (Blue) and Modernists (Orange) and Cultural Creatives (Green/Yellow) represent one example



of this societal transformation in progress.<sup>25</sup> A similar values framework described by Richard Barrett actually has transformation as one of the values levels.<sup>26</sup> These levels can be matched against the Spiral Dynamics with Level Two equating to Blue, Level Three to Orange, Levels Four and Five-Green and emerging Yellow, Level Six-Yellow and Level Seven-Turquoise. Table Two provides a very brief summation of Barrett’s values framework.

<b>Consciousness Level</b>	<b>Personal</b>	<b>Organisational</b>
Level One: Survival	Health, safety, wealth	Financial survival, insecurity leading to excessive control, begrudging compliance
Level Two: Relationships	Family, friendship, respect	Family businesses, rules, discipline and obedience
Level Three: Self-Esteem	Ambition, determination, professional growth, respect and recognition	Best practice, competitive, quality control, hierarchies
Level Four: Transformation	Personal development, courage, responsibility	Risk-taking, innovation and learning, non-financial indicators, employee participation
Level Five: Internal Cohesion	Commitment, humour, enthusiasm, meaning	Shared vision and values, transparency, passion
Level Six: Making a Difference	Community-mindedness, contribution, empathy	Strategic alliances, corporate social responsibility, mentoring and coaching
Level Seven: Service	Global perspective, wisdom, compassion, human rights, future generations	Global vision, sustainable development, social activism and philanthropy, ethics.

**Table Two: Barrett’s values framework**

Barrett makes the point that individuals or organisations do not operate from one specific level of consciousness but tend to be clustered around a number of levels. The transformation level is entered by organisations when their viability is threatened which could be triggered by new technology, regulation, competition or changes in

demand patterns. For individuals, transformation requires continuous questioning of beliefs and assumptions. Once again, this evolutionary path of consciousness maps well against the T-Cycle with each level requiring evolutionary and substantial change to occur. Breakdowns of meaning occur at each level, but particularly in the transformation level, where fears are transcended, where personal development and the common good are stressed, and where major cultural shifts towards trust and truth occur. Barrett's use of the transformation term for this particular level highlights the particular state of current Western consciousness and depicts the macro-transition that is required to progress from the current economic and scientific dominated worldviews to those that are more humanistic, passionate, socially responsible and ethical. Other value systems such as Spiral Dynamics would argue that the greatest transformation occurs at higher value sets when moving from first tier to second tier memes (i.e. from Green to Yellow) where an integrative and systemic perspective is adopted and where change is considered to be natural. In a recent report by the Global Scenario Group, it is argued that humanity is in the midst of its third significant transition, from the Modern Era to a Planetary Phase of Civilisation. Their Great Transitions scenarios picture a global transformation that views the development of a more sustainable world with new values, a revised model of development and active engagement of civil society.<sup>27</sup>

### THE SOURCE OF THE T-CYCLE

The T-Cycle has strong social constructivist elements. It is clear that the premises espoused by sociologists such as Berger and Luckman on *The Social Construction of Reality*<sup>28</sup> have influenced Slaughter's development of the T-Cycle. Here, the concept of legitimation is discussed extensively as an objectification of meaning. Legitimation is based on social institutionalisations that have built up over time through a shared history of reciprocal actions. Meaning is perceived as an objective reality through the development of a stock of knowledge and transmitted through language. When meaning is objectified, it could almost be reified as an independent reality outside of the individual. Legitimation has both cognitive and normative elements; hence it comprises both values and knowledge. This interweaving of legitimation and social construction means that knowledge cannot exist (and nor can language for its communication) without context and without a particular values set.

Another major aspect arising from this book is that:

The legitimation of the institutional order is ... faced with the ongoing necessity of keeping chaos at bay. All social reality is precarious. All societies are constructions in the face of chaos. The constant possibility of anomic terror

is actualised whenever the legitimations that obscure the precariousness are threatened or collapse.<sup>29</sup>

This demonstrates the desire for societies to maintain equilibrium and resist change. Critically, it emphasises that meaning needs to be broken down to create tensions within existing legitimations before transformation can occur. This systemic view is quite similar to that of Laszlo's described earlier which sees external chaotic forces constantly pressuring individuals or collectives to undergo radical change.

The social construction of reality actually refers to multiple realities. Transition between these realities is a kind of shock. Yet these shocks do not constitute transformation. Transformation occurs with significant changes to subjective reality enabled through social interaction. Transformation requires the past to be re-interpreted for the new subjective reality.

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## THE T-CYCLE AND CRITICAL FUTURES STUDIES

Slaughter has also described the significance and pace of cultural innovation in enabling transformation through Critical Futures Studies.<sup>30</sup> New images for the future, either reinterpretations of the past or the results of enlightened envisioning exercises, require sufficient penetration into society beyond that of the individual in order for them to become legitimated. The T-Cycle describes how that social process occurs, particularly in the negotiations and conflicts phase when these re-conceptualisations are assessed. Slaughter argues that this social constructivist position is a methodological paradigm of Critical Futures Studies beyond that of forecasting and scenarios.<sup>31</sup>

Fundamentally, the T-Cycle shares the same hermeneutic basis as Critical Futures Studies. Critical Futures Studies has a central concern that has 'little to do with prediction, forecasting or scenarios. It concerns the renegotiation of meanings'.<sup>32</sup> Hermeneutics or the science of interpretation, like the social construction of reality, is context dependent, and requires the use of language and its underlying values and knowledge to make understanding possible. Rather than a foresight methodology *per se*, the T-Cycle is actually a tool for explaining and exploring Critical Futures Studies in practice. It is the process to engage in undertaking deep futures thinking, exploring the limitations of current worldviews and negotiating reconceptualised pictures for eventual legitimation.

In many respects, the T-Cycle contains elements of both a depth methodology and a narrative for analysing a transformative process. Its true value is as a narrative and aid, incorporating the use of depth methodologies to explore and extend the cycle. Most importantly, the constructivist aspect of the T-Cycle means that it is also context-specific. The statement of particular issues at particular points on the T-Cycle is

In many respects, the T-Cycle contains elements of both a depth methodology and a narrative for analysing a transformative process. Its true value is as a narrative and aid, incorporating the use of depth methodologies to explore and extend the cycle.

dependent on the worldview, values set and placement of the analyst. One person's view that a particular issue could be a new re-conceptualisation could be another person's view that it has already achieved selective legitimisation, depending on their context. Context could be illustrated by the particular vMeme that the T-

Cycle analyst is working from. Thus, a similar cross-level analysis as that used by Voros could be employed to identify the inner values set of those that perform the T-Cycle.<sup>33</sup>

The use of the T-Cycle is also time-dependent. Like the Gartner Hype Curve, the placement of particular items on the cycle depends on their state of evolution through the cycle. A particular re-conceptualisation may later achieve selective legitimisation and hence the conduct of the T-Cycle at different times will have different results. Worldview dependence, context dependence and time dependence all serve to illustrate that any application of the T-Cycle is framed by the particular social construction of reality of its authors.

The constructivist fundamentals of the T-Cycle, its emphasis on meaning and hermeneutics, and its context-dependence firmly place the T-Cycle within the left hand quadrants of Wilber's Four Quadrant Model.<sup>34</sup> These left hand interior paths are those that are more interpretive, hermeneutic and conscious as compared with the right hand path's more empirical and positivistic approach. Either at the individual level where transformation can occur to more advanced states of consciousness or at the collective-cultural level where transformation can result in new worldviews and paradigmatic meanings, the T-Cycle can map each of those processes either in the past, the present or the future.

The temporal context of the T-Cycle is particularly important. The T-Cycle could be applied to past events such as a macrohistorical framework, to present events to outline transition pathways, or to future events to uncover the meaning behind surface issues if used in conjunction with depth methodologies, possible, plausible and preferable states and to understand the conflicts that will need to be negotiated to achieve preferences. Time should not be used as a measure of transformation but only as an

indication that some changes take longer than others. It is the process that is key, and full transformation often takes significant time to be embedded individually or collectively. In effect, taking time out of the equation to reflect and look more deeply at the nature of transformation, to experience transformation by being in the present, helps to underscore its interior left-hand hermeneutic nature.

In many respects, the T-Cycle is limited by its narrative structure. Its focus on meaning, language, social construction and hermeneutics is quite discursive and ideational. While valuable in its own right as exemplified in the illustrations above, it simply provides a view from a particular perspective or context at a particular point in time. Its discursive nature

limits a more structural approach to transformational issues. While these are somewhat considered in the negotiations and conflict stage, the systemic and integrative aspects of wider structural change may be overlooked.

The transformative cycle is a useful tool for analysing the process of change at individual, organisational, societal or global levels. It is highly hermeneutic and constructivist in its approach, focusing on the inner capacities that shape the outer world. It is particularly useful when combined with other foresight methodologies to expand the model into an elaborated form.

## CONCLUSION

The transformative cycle is a useful tool for analysing the process of change at individual, organisational, societal or global levels. Its primary benefits lie in its capacity to provide a framework for understanding the triggers to transformation, opening up new possibilities and dealing with political and other issues in order to achieve new enhanced states. It is highly hermeneutic and constructivist in its approach, focusing on the inner capacities that shape the outer world. It is particularly useful when combined with other foresight methodologies to expand the model into an elaborated form.

While cyclical in its layout, the T-Cycle is actually underscored by an unstated spiral structure. Within a futures discourse, transformation is based around the significant advancement, or regression if dystopian, to other values, beliefs and cultures and their consequent socio-technical structures and patterns. It is more than just adaptation; it is about the creation of something new based on interactions between agents. The T-Cycle helps identify and illustrate these socio-cultural and contextual dimensions of transformation without getting sidetracked by ancillary pressures of time or technology.

Unlike most other foresight methodologies, the T-Cycle spans the field of foresight from analysis through depth and into visioning. It does not attack a particular blockage

or unveil a particular meaning or vision. Instead, its discursive and narrative approach helps in understanding the flow of foresight and to identify pathways for future action or to understand previous historical routes. As with other foresight methodologies, it should not be reified, but placed in the foresight practitioner's toolkit and used as appropriate to the particular context.

## ENDNOTES

- <sup>1</sup> Webster's English Dictionary (1988) p395
- <sup>2</sup> Wilber, K (2000) p48-54
- <sup>3</sup> Slaughter, R (1987)
- <sup>4</sup> Slaughter, R (1996)
- <sup>5</sup> Slaughter, R (1999)
- <sup>6</sup> Simplified version adapted from Slaughter, R (1999), p234.
- <sup>7</sup> Wilber, K (2000) p49
- <sup>8</sup> Landmark Education (2002) p1
- <sup>9</sup> de Geus, A (1997)
- <sup>10</sup> see Tibbs, H (1999)
- <sup>11</sup> Inayatullah, S (2001)
- <sup>12</sup> Inayatullah, S (2002)
- <sup>13</sup> Marien, M (2000)
- <sup>14</sup> Slaughter, R (1999)
- <sup>15</sup> Choo, C W (1995) p19
- <sup>16</sup> Gartner (2003)
- <sup>17</sup> Christensen, C (1997)
- <sup>18</sup> Laszlo (1987)
- <sup>19</sup> Replica derived from Ray, P and Anderson, S R (2000) p252
- <sup>20</sup> Hines, A (2000)
- <sup>21</sup> Slaughter, R (1999) p356
- <sup>22</sup> Conway, M and Voros, J (2002)
- <sup>23</sup> Slaughter R (1999) p237-8
- <sup>24</sup> From Peter Hayward's work at the Australian Taxation Office
- <sup>25</sup> Ray, P and Anderson, S R (2000)
- <sup>26</sup> Barrett, R (2002)
- <sup>27</sup> Raskin, P, Banuri, T, Gallopin, G, Gutman, P, Hammond, A, Kates, R, and Swart, R (2002)
- <sup>28</sup> Berger, P and Luckman T (1966)
- <sup>29</sup> Berger, P and Luckman, T (1966) p121
- <sup>30</sup> Slaughter (1999)
- <sup>31</sup> Slaughter, R (2002)
- <sup>32</sup> Slaughter, R (2002) p29
- <sup>33</sup> Voros, J (2001)
- <sup>34</sup> Wilber, K (2001)

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### 3 Futures and Complex Thinking: stepping through the doorstep of dialectics

NEIL HOUGHTON

#### INTRODUCTION

The essence of futures research and practice is the creation of better futures. Common to all futures work is an emphasis on changes in thinking, knowledge and practice. Futures work necessarily involves uncertainty, not just because the longer term future is inherently unknowable, but also because of the complexity of social and natural systems and their interdependence. Theories of change will therefore inform the development of a foresight capability based on a reflexive and transdisciplinary understanding of the dialectical movement between context, theory and practice.

This paper therefore provides an overview of a number of key concepts including dialectics, transdisciplinarity and reflexivity as a precursor to a meta-theory of change that encourages an awareness of actions and their context, as well as making sense of the convergences and divergences between different ideas. These concepts are important since they will shape the development of a foresight capability that reflects prudence, wisdom and practical reason<sup>1</sup>.

## EMERGENCE OF COMPLEXITY

Recent futures literature has explored ideas such as complexity theory, catastrophe theory and chaos theory. In 1994, a special edition of *Futures* examined complexity and futures.<sup>2</sup> These ideas, originating in the physical sciences, are being woven into the futures discourse. Martin noted the emergence of ‘buzz-words’ (such as complexity and chaos) across all fields of inquiry and framed his own research question (relating to organisational governance systems) in terms of complex systems theory.<sup>3</sup> Chaos and complexity theories have also made their appearance in the strategic management and social sciences literature. Beinhocker sees the ‘edge of chaos’ as that balance between slow, incremental change and rapid, radical change.<sup>4</sup> These views have not been un-challenged in the literature. Richard Hull questions the complexity ‘fad’ and wonders whether complexity ideas can be legitimately applied to problem areas such as the management of organisations.<sup>5</sup>

Within Futures Studies, Fuller states that the reason for the use of complexity ideas is to simplify and create a coherent description of behaviour. Citing Gell-Mann, Fuller notes that complexity resides in the ‘domain of explanation’ and is a ‘function of the length of the description’.<sup>6</sup> Mannermaa has developed what he calls an evolutionary approach to futures research where complexity discourse may be understood as an extension to general systems theory.<sup>7</sup> Systems thinking emerged decades ago in response to a view that traditional approaches did not provide clarity on the deep nature of the problems being addressed. The synthesis of systems thinking and complexity theory has been termed ‘complex systems theory’.<sup>8</sup>

Funtowicz and Ravetz extend the discussion of complex systems through the use of reflexivity; they perceive the need for a ‘science of reflexive systems’ which has also been called post-normal science.<sup>9</sup> They note that complex systems exhibit reflexive properties.<sup>10</sup> Life, society and consciousness are examples of emergent reflexive properties in a global social context. The critical implication for Futures Studies, is the need to construct visions of the future that embrace hierarchical and holarchical dimensions of reality.<sup>11</sup> Such an approach expresses the dialectical nature of systems.

Shackley et al state that the emergence of complexity concepts has been driven by a number of factors including, what they call the ‘simplicity paradigm’.<sup>12</sup> They claim that current failures of policy are evidence of the problems with traditional linear, reductionist thinking approaches, and highlight a need for new research funding for new approaches. As a result new ideas like complexity are being legitimised and research funding is being redirected into these new ideas. Ideas such as ‘complexity’ are being put forward as a response to account for policy failure.

Other writers have focused on other reasons for the emergence of complexity ideas.

Lissack, for example, notes the key role of metaphors in shaping our everyday experience. He argues that various complexity metaphors (such as ‘edge of chaos’, and ‘complex systems thinking’) are integral to the process of sense making.<sup>13</sup>

Lo Presti presents a number of reasons for the emergence of complexity ideas. The first reason is that any domain of interest involving uncertainty and limited knowledge will necessarily give rise to discussions about complexity. The second reason is what Lo Presti sees as an ‘epistemological similarity’ between the practitioners of Futures Studies and the physical sciences.<sup>14</sup> This similarity, he argues, means that complexity ideas will find relevance and coherence within Futures Studies practitioners.

Lo Presti also provides a critical view concerning the validity of these new ideas in the domain of futures studies. He states that the heuristic transdisciplinary approach of complex

**One of the key challenges of Futures Studies is to create new narratives that inspire people to new forms of being.**

systems thinking and futures thinking lacks theoretical rigour.<sup>15</sup> Whether this is the case or not cannot be adequately addressed within this paper, however, an alternative view that recognises the dialectical interdependency between theory and practice will be presented. It is important to note that there has been considerable recent activity within the futures arena focused on methodological renewal and explicit recognition of the role of transdisciplinarity and the challenge of complexity. Lo Presti’s claim does not seem to fully recognise the dialectical and reflexive nature of knowledge creation, theory and practice.

## DOMAINS OF COMPLEXITY

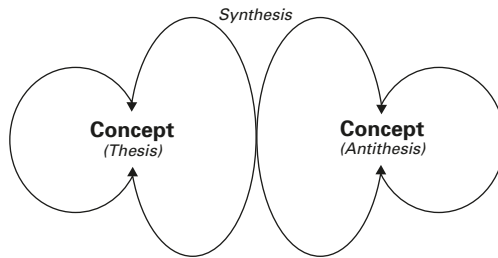
Complexity seems to be an inherent characteristic of social systems. Yet what we mean by complexity is often not elaborated in detail. One simple distinction offered by Mannermaa is of value here. He elaborates two domains of complexity: the first, ‘ontological complexity’ refers to the inherent complexity of natural and social systems, while the second, ‘semiotic complexity’ refers to the complexity of models we use to think about natural and social systems.<sup>16</sup>

This reference to semiotics acknowledges the critical importance of symbols and metaphors in our understanding of things. Frequently, we embed symbols and metaphors into narratives that reflect our stories of experience, which help the construction of an understanding of our dialectical relationships. Most people are familiar with storytelling and parables, stories able to convey the complexity, ambiguity and emotions of our experiences. They are an accessible means to share our thoughts, feelings and experiences. One of the key challenges of Futures Studies is to create new narratives

that inspire people to new forms of being. In this paper, this challenge is cast in terms of a metaphor of a ‘doorstep’.

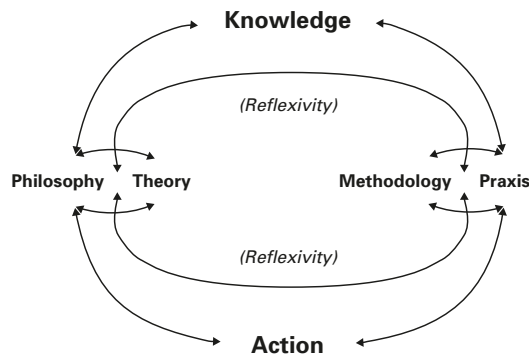
### THE DOORSTEP OF DIALECTICS

Dialectics is a dynamic process of reflexive reasoning. It involves convergences and divergences between different ideas shown schematically in Figure One. Dialectics is frequently described in terms of movement between thesis, antithesis and synthesis.<sup>17</sup>



**Figure One: Dialectics: the reflexive nature of meaning**

Dialectical thinking links theory and practice. Praxis is a Greek word that combines the notions of experience, reflection and action. Praxis, therefore, is a reflexive process of experiential learning. The theory-praxis dialectic is illustrated in Figure Two and is intended to emphasise that knowledge of different levels of reality emerge in a dynamic process of creation and being. Dempster<sup>18</sup>, expands the concept of ‘poiesis’ (which is a dynamic process of creation and being) to propose a concept of a sym-poietic system (where the prefix ‘sym’ means ‘along with or together’) to emphasise the interdependence of a system with other sym-poietic systems. Such systems co-exist in dialectical embrace.



**Figure Two: Theory-Praxis Dialectic**

Wilber critiques both systems thinking and complex systems thinking approaches as lacking depth. In his view, these approaches concentrate on visible ‘flatland’ surfaces while ignoring the deeper integral structure.<sup>19</sup> Wilber places system theory approaches within the upper and lower right quadrants of his Four Quadrant Model.<sup>20</sup> For this reason, he concludes that concepts like ‘chaos’ and ‘complexity’ have limited usefulness from an integral perspective. This view has also been challenged, in particular by Edwards<sup>21</sup> who points out the ‘depth’ within various right hand quadrant models.

This paper has previously noted some of the claims presented Lo Presti. Of interest here, are his ‘contradictions’ of complex thinking. The two most serious contradictions, are firstly, what he calls a ‘superficial use of the complexity theory concepts’ and, secondly, what he sees as a ‘mostly theoretical approach to complexity’.<sup>22</sup> These ‘contradictions’ however, fail to recognise the way in which new concepts emerge and diffuse into the literature and practical use. This issue is discussed below using Slaughter’s Transformative Cycle mode of change.

Figure Three illustrates how Slaughter uses a concept called the ‘Transformative Cycle’, or T-Cycle, to map cycles of emergence that include: breakdown of meaning, re-conceptualisation, conflict, selective legitimation and synthesis. The T-Cycle is a useful model for thinking about how meaning emerges through political processes of debate, discussion, negotiation, argumentation, dialogue and change. This cycle encourages an awareness of actions and their context, as well as the convergences and divergences between different ideas. Reflexive thinking enables the recognition of the possibility of synthesis and the emergence of new states of being.

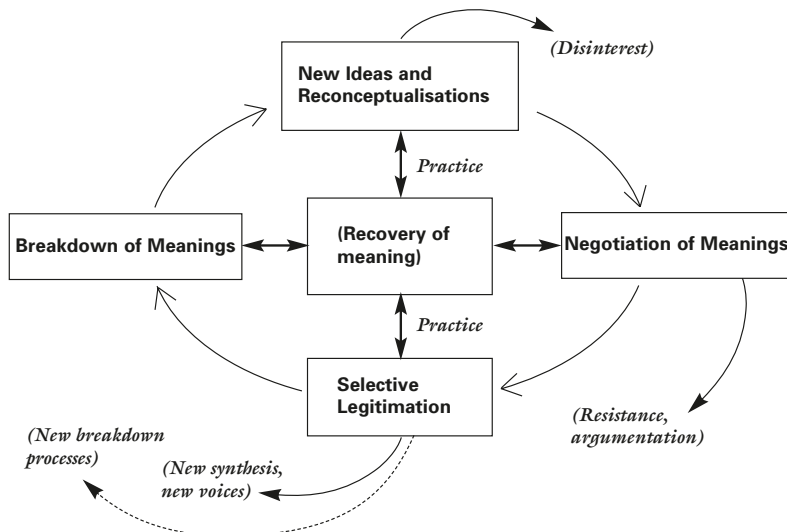
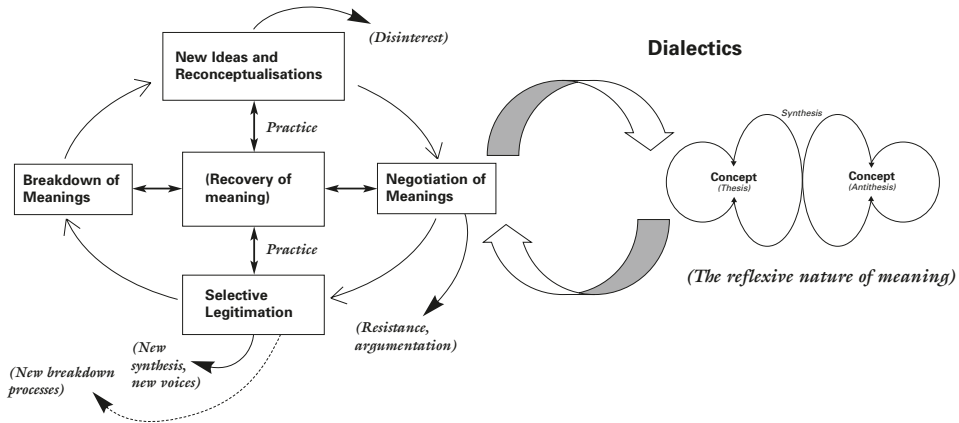


Figure Three: Slaughter’s Transformative Cycle<sup>23</sup>

Each of the main stages in the T-Cycle involves dialectical play as shown in Figure Four. Please note that the dialectical play is only shown for the ‘Negotiation of Meanings’ stage but also exists in the other stages: ‘New ideas’, ‘Breakdown of meaning’ and ‘Selective legitimation’.



**Figure Four: T-Cycle and Dialectics**

Current discussion relating to the use of ‘complexity’ within futures discourse appears to be at the ‘conflict’ stage (involving resistance and argumentation). There are a few examples of selective legitimation emerging within the literature, for example Wilber’s Four Quadrant Model. The T-Cycle enables one to see that it is necessary to let people play with new concepts for a while as they explore the boundaries. In some cases praxis will follow research. Of course, the dialectical interplay between theory and praxis means that practical wisdom (embedded in a particular praxis) can also inform research and theory development; but this is not the only way that socially useful knowledge can be created.

The T-Cycle provides a reflexive framework to explore change processes and contemporary challenges. Senge and Scharmer believe that contemporary challenges can only be addressed through a process of collaboration and collective knowledge building. To their dismay, they feel that many approaches do not have any ‘long term strategic coherence’.<sup>24</sup> By this they mean that successful approaches to deep change require a dialectic flow between research, theory and praxis.

One such process called ‘Community Action Research’, they characterise by three points of differentiation:

1. a focus on relationships between people involved in the context
2. collective reflection
3. an embedded capacity for transformative change through the establishment of linkages between organisations.

In summary, the focus is on the creation of practical knowledge that is of immediate use to people in their individual and collective contexts.

Closely linked to the success of Community Action Research is a process of dialogue, which enables the sharing of insights across the community. Senge and Scharmer highlight the importance of this within an organisational context. They use the example of an external expert (or consultant) coming into an organisation to identify aspects of a problem and recommend actions. For the consultant to obtain a true picture of what is really going on requires the development of trust between members of the organisation and the external consultant. Frequently, the knowledge held by organisational members is tacit and can only be discovered by the external consultant through intentional disclosure by organisational members.<sup>25</sup> The reflexive nature of Community Action Research highlights its role as a meta-theory of knowledge creation; specifically it requires the development of knowledge of the knowledge creation process in much the same way as Slaughter’s T-Cycle.

The Community Action Research approach, therefore, involves an interdependent and dialectical flow between theory; methodology and tools; and practical know-how. The importance of practical know-how has also been emphasised by other writers. Gibbons et al, have described the development of ‘socially useful knowledge’ as a critical differentiation of transdisciplinarity.<sup>26</sup> The dialectical flow within Senge and Scharmer’s Community Action Research model and Slaughter’s T-Cycle emphasise a recursive cycle linking research, capacity building and practice. As noted above, this reflexivity recognises that praxis (or practical wisdom) can inform research, just as theoretical development can lead to the development of new methodologies and practice.

The knowledge creation cycle can take a long time as a result of a range of factors including individual attitudes, levels of cognitive development, collective culture and value sets as well as institutional and political systems that encourage particular actions and behaviours.<sup>27</sup> There is clear evidence that a new theory, methodology or practice with a focus on an epistemological or paradigmatic level of reality, may take decades when a deep shift of epistemological or ontological views is required.

The critical point of the above discussion is that dialectical play is an important element of transdisciplinary discourse. Many issues we discuss are both simple and complex

Dialectical play is an important element of transdisciplinary discourse. Many issues we discuss are both simple and complex at the same time.

at the same time. They are ‘simple’ in the sense that our models of knowledge are mostly legitimated through existing cause-effect thinking and ‘complex’ in the sense that at deeper levels there are uncertainties associated with the knowledge bases upon which the concepts are constructed in the first

place. Post-normal (transdisciplinary) enquiry finds itself on the ‘doorstep of dialectics’.<sup>28</sup>

### TRANSDISCIPLINARITY

Transdisciplinarity has been referred to a few times in this paper already. It is necessary to explore the concept in further detail. Basarab Nicolescu provides an introduction to transdisciplinarity and notes that, in simple terms, it is that which is ‘between the disciplines, across disciplines and beyond all discipline’.<sup>29</sup> Transdisciplinarity involves new approaches to knowledge creation across and *beyond* different disciplines. This is important when we recognise that we ‘look at the world through the eyes of the discipline’.<sup>30</sup> Giri argues that the lack of ‘deep interpenetration of disciplinary perspectives’ is a fundamental barrier to integral thinking.<sup>31</sup> In his view, it is necessary to rethink disciplinary identity and open to the emergence of a creative transdisciplinary. This ‘quest for a new mode of engagement’ will move beyond discipline into the realm of transdisciplinarity.<sup>32</sup> Giri argues that transdisciplinarity enables participants to let go or suspend their points of views to listen deeply to the views of others. This leads to the possibility for ‘emergent synthesis’.<sup>33</sup>

Transdisciplinarity is frequently described in terms of the so called ‘three pillars’.<sup>34</sup> These pillars include:

- Logic of the Included Middle. Dualistic thinking typically sees things as black or white; true or false; subjective or objective. The logic of the included middle recognises the ‘complementarity of opposites’ which frequently arises through paradox and aporia.<sup>35</sup> The included middle is that grey area that is neither black nor white. It is a dialectic relationship between elements.
- Complexity. There are many types of complexity. One is called ‘ontological complexity’ that refers to the complexity inherent within social and natural systems. Another is called ‘semiotic complexity’ that refers to the complexity of the models we use when we think and talk about things of



interest. Together, they represent the foundation of an onto-epistemological framework for making sense.

- Levels of reality. The third pillar of transdisciplinarity is different levels of reality. Models such as Wilber's integral AQAL map of reality, for example, are inherently multi level. Transdisciplinarity also explicitly recognises different levels of reality.

Transcendence, for example, can be regarded as the emergence of a new causal framework and can, therefore, be regarded as meta-causal. Examples of transcendence can be found easily if we look for them: the 'hunger of children for stories' emphasises that while stories may be fun for children to hear, they can also point to the need of children to explore beyond the immediate space of the 'here-and-now'. Therefore, transcendence can be seen in the dialectic sense of being immanent (i.e. inherent) and imminent (i.e. as something beyond). Anderson identifies three themes related to our sense of identity, which he calls:

1. Augmentation
2. Symbiosis
3. Transcendence

He notes that transcendence is a natural part of humanity. We have always been seeking to surpass ourselves. Wilber's integral view also involves transcendence. From the point of view of self-identity, transcendence means going beyond presently understood identity boundaries. The Integral view encourages recognition of the critical interplay between individual and relational senses of identity.

## REFLEXIVITY

Reflexivity involves a conscious and unconscious shaping of meaning. It involves a capacity to stand back from immersion in the world and see beneath the surface to deeper levels of sense making. Futures practitioners need to develop a self awareness (or self-reflexivity) that enables them to see that their own traditions, experiences and ontological and epistemological viewpoints can influence their approaches to futures studies.

Reflexivity also involves a social dimension. Self-reflexive organisations are better placed to engage in organisational change initiatives based on dialogue. This capacity is likely to be an integral part of an organisational foresight capability. Cannibal and Winnard, for example, take some steps in synthesising the ideas of complexity and emergent organisational forms by elaborating a three-stage organisational change model.<sup>36</sup> Their model is intended to create reflexive organisations<sup>37</sup> and clearly illustrates the transfer of ideas between disciplines.

The model is based on three stages with each stage recognising the non-linear and recursive nature of the interdependencies between individuals, organisation and their social, cultural and physical contexts. The first stage of the model is intended to create a ‘container for change’ that reflects the web of interconnected relationships between people inside an organisation and builds an understanding of the need for change. The second stage of the model is called the ‘threshold at the edge of order’ because it recognises that change within organisations involves a discovery process of expeditions and trial and error. This leads to a breakaway from the current equilibrium (that is the edge of order) from which new organisational behaviours, forms and culture can emerge. The third stage of the model, called ‘emergence of a new order’ should not represent the end of a change initiative, rather the continuation of an adaptive process that seeks to embed a social reflexive capacity within the organisation to assess its identity and purpose.

## META-THEORY AND MODELS OF CHANGE

This paper has examined Slaughter’s T-Cycle as an example of a meta-theory and model for change. The change management literature provides a huge array of discussion on different theories of change. Of particular interest is the meta-theoretical overview provided by Van de Ven and Poole.<sup>38</sup> They provide four meta-theories of change, which can be used to understand multiple perspectives and divergent views relating to the theory of change. Their approach is based on theoretical pluralism embodying a typology that they feel allows for understanding of a range of developmental paths (both inclusive and regressive) within individuals and organisations. The typology proposes four pure forms (or ‘motors’) of theories of change:

- Lifecycle – based on various models of stages of development frequently embodying an event or process causality based on logical or natural sequences.
- Teleological – based on a different interpretation of causality that emphasises the primary role of purpose or super ordinate goal.
- Dialectical – based on an underlying causality that reflects interplay between alternative viewpoints that may embody as conflict, creative tension or the emergence of a new synthesis.
- Evolutionary – based on a model of causality emphasising variation, selection and retention.

Van de Ven and Poole emphasise that these four theoretical ‘motors’ provide a basis for integrating divergent perspectives. While each may provide a partial account of reality, together they provide a richer tapestry for navigating the complexity of reality.

In fact, Van de Ven and Poole suggest that a complex interplay between these four ‘motors’ are likely to be operating interdependently within any interpretation of a complex real world developmental process.<sup>39</sup>

Dennis List provided a discussion of ‘three maps for navigating the future’.<sup>40</sup> He based one of his maps of the future on the meta-theoretical framework of Van de Ven and Poole. In particular, List described Slaughter’s T-Cycle as an example of a dialectical model of change. While no reasoning was provided for this placement, it could be linked to Slaughter’s specific use of ‘conflict and negotiation’ as a descriptor for one of the phases within his T-Cycle.

However, in this paper it is suggested that the T-Cycle in fact is an example of interplay between all of the ‘motors’ within Van de Ven and Poole’s meta-theoretical framework. This is not to suggest that a dialectical theory is of less value; rather that the use of such an approach to step through the doorstep of dialectics provides an opportunity to engage with the depth and breadth of reality; in short, to embrace an integral view. Table One below illustrates the overlap of Slaughter’s T-Cycle and the four ‘motors’ of the meta-theoretical map.

<b>Meta-theory ‘motor’</b>	<b>Slaughter’s T-Cycle</b>
Lifecycle theory – emphasising sequence or cycle	T-Cycle includes a number of sub-cycles such as ‘environmental scanning’, and ‘presentation and negotiation of meanings’
Teleological theory – emphasising purposeful action	T-Cycle examines change from the point of view of the transformation of meaning, a new synthesis of meaning, epistemology and ontology
Evolution theory – emphasising (competitive)	T-Cycle includes ‘selective legitimation’, realignment (‘reconceptualisations’) selection and transitions to ‘new states of being’.
Dialectical theory – emphasising tension and conflict	T-Cycle includes aspects of crisis (‘breakdown of meaning’, ‘conflicts and negotiations’)

**Table One: Van de Ven and Poole’s meta-theoretical map and Slaughter’s T-Cycle**

## CONCLUSION

This paper has examined the emergence of the use of terms like ‘complexity’, ‘transdisciplinarity’ and ‘reflexivity’ within futures discourse. These concepts are important since they are characteristic of the nature of futures research and practice, which is intended to create better futures. These concepts will shape the development of a foresight capability that reflects prudence, wisdom and practical reason. The paper has highlighted the dialectical interdependence between theory and praxis and the change process itself. Slaughter’s Transformative Cycle was presented as a meta-model of change that recognises this interdependence as an integral part of the search for meaning.

Metaphorically speaking, the futures researcher and practitioner have an opportunity to step through the ‘doorstep of dialectics’ and open to the possibility of synthesis, new organisations, new society and the emergence of new states of being.

## ENDNOTES

- <sup>1</sup> Aristotle, for example, introduced the concept of ‘phronesis’ which involves prudence, wisdom and practical reason. A foresight capability, acknowledging the reflexive interdependence between theory and practice will also be a phronetic social science. See Nowotny 2001.
- <sup>2</sup> Sardar and Ravetz (1994)
- <sup>3</sup> Martin (2001)
- <sup>4</sup> Beinhocker (1997)
- <sup>5</sup> Hull (1997)
- <sup>6</sup> Fuller, undated
- <sup>7</sup> Mannermaa (2000)
- <sup>8</sup> See the following URL for an introduction to complex systems theory (accessed march 2004)  
<http://www.santafe.edu/~chaos/Talks/CSTheorySFIRetreat.pdf>
- <sup>9</sup> Funtowicz and Ravetz (1997)
- <sup>10</sup> Funtowicz and Ravetz (1997) p801
- <sup>11</sup> Kay et. al. (1999) describe an holarchy as similar to a hierarchy except that the holarchy contains a nested network of reciprocal power relationships. The holarchy, therefore, is a generalised version of the hierarchy where power structures frequently exert influence in a top-down direction. The holarchy consists of a network of ‘holons’ that are characterised by mutual causality and reciprocal interactions.
- <sup>12</sup> Shackley et al (1996)
- <sup>13</sup> Lissack (1996)
- <sup>14</sup> Lo Presti (1996)
- <sup>15</sup> Lo Presti (1996)
- <sup>16</sup> Mannermaa (2000) p5

- <sup>17</sup> See, for example, the following URL for an introduction,  
<http://65.107.211.206/cpace/theory/dialectic.html>
- <sup>18</sup> Dempster (1998)
- <sup>19</sup> Wilber (2000)
- <sup>20</sup> Wilber (2000) p154, Endnote 15
- <sup>21</sup> Edwards, 2003
- <sup>22</sup> Lo Presti (1996)
- <sup>23</sup> Slaughter (1999)
- <sup>24</sup> Senge and Scharmer (2001)
- <sup>25</sup> Senge and Scharmer (2001)
- <sup>26</sup> See Gibbons et al (1994) and Gibbons and Nowotny (2001).
- <sup>27</sup> The implications for Futures Studies are quite interesting. Senge and Scharmer describe two critical sources of learning, which they call ‘frontiers’. The first is ‘reflection on the past’ and the second is what they call ‘presencing emerging futures’. These concepts are explored by Senge, Jaworski, Scharmer, Flowers (2004) in a new book entitled *Presence: Human Purpose and the Field of the Future*. Briefly, they regard the former as a process of inquiry based on dialogue and reflective cognition, whereas the latter approach called ‘presencing’, is based on a process that allows knowing to emerge which enables action in the present. By way of introducing the book Senge has said that ‘the future is waiting for your presence’. Senge examines a learning curve that flows through states he calls ‘waking’, ‘dreaming’, ‘presence’, ‘possibilities’ and ‘embodiment’. He argues for the need to create a new collective species of organisation that parallels individual development. The following references also provide further discussion of presencing: <http://www.management.com.ua/strategy/str068.html>;  
<http://www.dialogonleadership.org/ScharmerInterview02us.pdf>;  
<http://www.generationconsulting.com/Publications/Presencing%20paper.pdf>;  
[http://www.solonline.org/news/item?item\\_id=482293](http://www.solonline.org/news/item?item_id=482293);  
<http://www.presence.net/index.html>
- <sup>28</sup> Miller (2002) p2
- <sup>29</sup> Nicolescu (2001)
- <sup>30</sup> Giri (2002)
- <sup>31</sup> Giri (2002)
- <sup>32</sup> Giri (2002)
- <sup>33</sup> Giri (2002)
- <sup>34</sup> See Three Pillars of Transdisciplinarity, are described by Basarab Nicolescu and Seb Henagulph as (1) Logic of the included middle; (2) Complexity; and (3) Levels of reality. See Nicolescu (2001) and the following URL  
<http://www.goodshare.org/pillars.htm>.
- <sup>35</sup> Aporia literally means no path (a - poria). It is sometimes used to describe a logical inconsistency and there are also parallels with de Bono’s concept of ‘Po’ (as a provocation). The concept has been used by Jacques Derrida, for example, who examines

three senses of aporia that are relevant to epistemological activity. These are the ‘aporia of urgency’, the ‘aporia of suspension’ and the ‘aporia of responsibility’. The ‘aporia of urgency’ emerges from the tension between an immediate need for action, and the time usually required for change to take place. Social inertia, rigid traditions and epistemological attitudes all constrain the process of change. The ‘aporia of suspension’ is concerned with the need to reflexively engage with the past, present and future. Derrida claims that, if we are able to suspend the usual ‘rules’ long enough, we can re-invent them in a more appropriate context. The ‘aporia of responsibility’ arises since ‘responsibility’ must be both secret and disclosed at the same time. The secrecy lies in the uniqueness of individuals’ responsibility (ie. my responsibility for my actions and myself), while there is also a need to disclose oneself in order to maintain integrity with the intent of ‘responsibility’. See, Derrida, J (1995). *The Gift of Death*. Translated by David Wills. The University of Chicago Press.

<sup>36</sup> The stages of the Cannibal and Winnard model are: (1) ‘Building relationships as a container for change’; (2) ‘Threshold at the edge of order’; and (3) ‘Emergence of a new order’.

<sup>37</sup> Introduced by Lichtenstein and Grace in 1997, published in the *Journal of Organisational Change Management*

<sup>38</sup> Van de Ven and Poole (1995)

<sup>39</sup> Van de Ven and Poole (1995)

<sup>40</sup> See List, 2002. Paper presented to the World Futures Studies Federation Conference in Kure, Japan in 2002

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