Framing the Interplay of Leadership and Misleadership

in the light of the coaction cardioid and the Mandelbrot set

Introduction

Framing the interplay of leadership and misleadership

- Figure 3: Possible 8-fold Positive-Negative Hybrid Conditions
- Figure 4: 8-fold Pattern of Non-Neutral Relationships
- Figure 5: Coaction cardioid
- Figure 6: Transactional game patterns defining a coaction cardioid
- Figure 7: Adaptation of the approach of Figure 6 to leadership and misleadership
- Figure 8: Rendering of Mandelbrot set (using in- and out-colouring of image to highlight complexity)
  - Figure 8a: Illustration of alternative colouring conventions inside the M-set
  - Figure 8b: Progressive emergence of M-set through succession of iterations
- Figure 9: Tentative combination of features of preceding tables, using a simplified rendering of Mandelbrot set, to highlight role of imaginative perception in distinctions between leadership and misleadership

Distinguishing forms of leadership and misleadership

"Hidden" dynamic
"Real" vs "Imaginary"

Introduction (reproduced from main paper)

The challenges of the future are widely acknowledged to be complex. Whilst people, including potential leaders, are increasingly well informed, it is not clear that information alone is sufficient to respond effectively to the foreseen challenges and to those that may emerge unexpectedly (cf. Nassim Nicholas Taleb, *The Black Swan: the impact of the highly improbable*, 2007).

The need for appropriate leadership is also widely acknowledged -- as are controversial assessments of global leadership in respect of intervention in Iraq and of non-intervention in regions where wholesale massacre continues unabated on the largest scale since World War II. Such strategic decisions may be interpreted as skillful leadership or misleadership otherwise to be characterized as incompetence. However it is also the case that strategic leadership calls for the ability to mislead opponents in order to outmaneuver them, notably through surprise. Where followers cannot be fully informed of the strategy in order to maintain surprise, or where they cannot be expected to fully comprehend a complex strategy dependent on a wide range of factors, leadership also requires skillful misleadership of followers.

The following argument explores the interplay between such dimensions of leadership and misleadership. It is not an apology for misleadership and seeks to avoid entrapment in a binary logic defining leadership as necessarily "good" and misleadership as necessarily "bad". It seeks to raise the question of what is to be learnt from the different framings of the Iraq debacle -- for leaders and for followers. Will the capacity to respond be more appropriate on the next occasion?

This exploration develops arguments of an earlier paper (*Sustainability through the Dynamics of Strategic Dilemmas -- in the light of the coherence and visual form of the Mandelbrot set*, 2005) and its annexes (*Psycho-social Significance of the Mandelbrot Set: a sustainable boundary between chaos and order*, 2005; *Imagination, Resolution, Emergence, Realization and Embodiment: iterative comprehension ordered via the dynamics of the Mandelbrot set*, 2005). It also points to the significance of traditional strategic insights from Asian cultures.
In the light of the above factors, the purpose of the paper is to frame the question of whether the present times are seeing the emergence of what amounts to a Global Misleadership Council. Whether or not this is the case, how should appropriate misleadership be cultivated, and distinguished that of a more incompetent or malevolent form? What then are the complementary considerations for misfollowership under different forms of misleadership?

**Framing the interplay of leadership and misleadership**

Greater clarity with respect to the interplay of leadership and misleadership can be achieved by drawing on arguments elaborated earlier (Cardioid Attractor Fundamental to Sustainability: 8 transactional games forming the heart of sustainable relationship, 2005). There attention was drawn to the pattern of interactions highlighted by Edward Haskell (Generalization of the structure of Mendeleev's periodic table, 1972) in his work on the coaction cardioid (as discussed below). In its generic terms, the "governor component" is matched against the "work component" -- here corresponding respectively to leadership and followership. Schematically, using biological terms, this gave rise to Figure 3 (which follows the same pattern as Figure 1 in the main paper).

<table>
<thead>
<tr>
<th>Figure 3: Possible 8-fold Positive-Negative Hybrid Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>X: Work component</td>
</tr>
<tr>
<td>Positive: predation (positive negativity), allotrophy (positive neutrality), symbiosis (positive positivity)</td>
</tr>
<tr>
<td>Neutral: amensalism (neutral negativity)</td>
</tr>
<tr>
<td>Negative: synnecrosis (negative negativity)</td>
</tr>
<tr>
<td>Y: Control component</td>
</tr>
<tr>
<td>Negative: neutral negativity, O (neutral neutrality)</td>
</tr>
<tr>
<td>Neutral: allotrophy (positive neutrality)</td>
</tr>
<tr>
<td>Positive: predation (positive negativity), symbiosis (positive positivity)</td>
</tr>
</tbody>
</table>

Edward Haskell's insights (as represented in Figure 3) have been very usefully (and extensively) adapted by Timothy Wilken (The Relationship Continuum, 2002) to an ordering of the spectrum of personal relationships: adversity -- neutrality -- synergy. Wilken equates "synergy" with "positive" and "adversity" with "negative", although there are questionable aspects to this equivalence (cf Being Positive Avoiding Negativity: management challenge of positive vs negative, 2005). Wilken's study reframes Haskell's above ordering in the following table, where "win" equates with "positive" and "lose" with "negative". Again this may be fruitfully related to the pattern of Figure 1 in the main paper. The conditions highlighted in Figures 2a and 2b might also be integrated into an elaboration of Figure 4.

<table>
<thead>
<tr>
<th>Figure 4: 8-fold Pattern of Non-Neutral Relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y: Lose, Draw, Win</td>
</tr>
<tr>
<td>X: Lose, Lose, Draw, Win</td>
</tr>
</tbody>
</table>

In the earlier paper (in Figure 3 there) the representations above were related to the classical Ba Gua diagram of Taoism.

Haskell's original presentation of the above took the form of a cardioid cycle defined in relation to a circle (as seen in the figure below) of unchanging order (or entropy). The coaction cardioid turns  
- into the zero-zero or scalar zero circle in the region of predominantly negative coactions (inturning, in Greek, is entropy) toward Alpha (in Teilhard de Chardin's terms)  
- out of the circle in the region of predominantly positive coactions (turning out, in Greek, is ectropy) -- toward Omega (again in Teilhard de Chardin's terms).

The interactions, or "games", which reduce the degree of order (increasing entropy) are then within the circle, whereas those that increase the degree of order (decreasing entropy) lie outside the circle. The cardioid describes the "path" between these different conditions that is effectively associated with the sustainability of the system as a whole -- in which all interactions have a role to play.
In the earlier paper it was argued that the cardioid may well function as a kind of value attractor (cf Human Values as Strange Attractors: Coevolution of classes of governance principles, 1993). In this sense it is perhaps more fruitful to look further at the way in which the different "games" as transactional patterns, define the contextual cardioid pattern -- namely the sense in which all the games need to be evoked in order for sustainability to hold. Figure 6 was used there to present this pattern.

A subsequent paper (Sustainability through the Dynamics of Strategic Dilemmas -- in the light of the coherence and visual form of the Mandelbrot set, 2005) explored the above leads -- possibly primarily metaphorical -- as a guide to more concrete interpretations. In that respect the isomorphism with Haskell's cardioid may bear a less than rigorous relationship to that discussed here. This possibility was subsequently explored with greater rigour by Kent Palmer (Is a Science of Nonduality possible? 2005) leading him to present this relationship as a "Haskell/Mandelbrot/Judge theory of nonduality".

Since the relationship between "leadership" and "misleadership" may indeed be understood in game theory terms -- whether or not it is indeed described as a "shell game", the presentation of Figure 6 may be adapted to that case, as in Figure 7 (notably based on Figure 1, in the main paper, here rotated 90 degrees).
By building further on these possibilities, greater insight may be obtained into the relationship between "leadership" and "misleadership", as suggested below by Figure 9. However, as suggested by the work of Palmer, rather than overlay the pattern of relationships with a simple cardioid, the conventional representation of the Mandelbrot set (M-set) is used -- of which one of many possible renderings is presented in Figure 8.

**Figure 8: Rendering of Mandelbrot set using in- and out-colouring of image with Xaos to highlight complexity**

(axes have been rotated)

---

**Figure 8a: Illustration of alternative colouring conventions inside the M-set**

(suggestive of other understandings of the relationship between leadership and misleadership)
Figure 8b: Progressive emergence of M-set through succession of iterations
(suggestive of progressive clarification of understanding, through a learning process,
of distinctions between forms of leadership and misleadership)
Distinguishing forms of leadership and misleadership

The following Figure 9 is an effort to represent within the same framework various dimensions of relevance to understanding the essentially ambiguous relationship between the various forms of leadership and misleadership. It combines not only what leadership "is" but what it is imagined or portrayed to be -- in each case dependent on the (imaginative) perception of the beholder. For some purposes it could be described as a "spin map of governance" that integrates the necessary capacity to "get things together" and ensure they work. In particular it includes the circumstances of positive and negative (re)framing -- whether or not this implies appropriate or inappropriate judgement for some parties.
Although a simplified rendering of the Mandelbrot set (M-set) is provided at the centre of Figure 9, the segmentation of the diagram by axes and the schematic outer circle are a further simplification for the purposes of explanation. The real complexity is better represented by the complex fractal boundary of the M-set rather than by the outer circle.

Figure 9: Tentative combination of features of preceding tables, using a simplified rendering of Mandelbrot set, to highlight role of imaginative perception in distinctions between leadership and misleadership (axes have been rotated)

Comments on Figure 9:

- **complex plane**: although represented in two dimensions, as with the representation of the M-set, any axes should not be understood in typical cartesian terms. The relationship of leadership to misleadership is complex and is here (tentatively) mapped onto a "complex plane". The axes used are characterized by a degree of logical incommensurability in order to hold the complexity of the leadership challenge.

- **quadrants**: the essential incommensurability of the contents of Figure 9 may possibly be recognized by associating the left portion of the diagram with "left-hemisphere" cognition, and the right with "right-hemisphere" cognition. The upper portion of Figure 9 may be usefully associated with "conscious" understandings, whilst the lower portion may be associated with "unconscious" understanding.

- **axes (vertical/horizontal)**: these are adaptations of the "real" and "imaginary" axes (see below) of the complex plane on which representations of the M-set (at the centre) are represented. In Figure 9, the vertical axis is associated with (emergent) intent and order (or its collapse), the horizontal axis with (mis)perception (and illusion) together with imagination and imaginative (mis)representation. The upper end of the vertical axis is associated with emergent order; the lower end with collective collapse consequent upon fragmented self-interest.

- **axes (diagonal)**: these are used to represent leadership and misleadership as discussed earlier. The axis from upper-left to lower-right is intended to hold the engagement of leadership with risk and threat. It ranges from effective leadership (upper-left) to ineffectual leadership (lower-right). The axis from lower-left to upper-right holds misleadership in term of how threats and solutions are reframed under conditions of uncertainty. The lower-left extreme is associated with imaginative entrapment in narrow understandings of appropriateness; the upper-left extreme with enabling comprehension of new patterns of coherence.

- **circular segments**: these are used to highlight various mixes of real and imaginary (imaginative, imagined, illusory) framings of circumstances. The proximity of particular segments to particular axes determines the (tentative) placement of more or less functional responses. For example, confidentiality and subterfuge are typically associated with successful strategic leadership (upper-left) – leaders necessarily have secrets in order ensure advantage in problematic circumstances. Deliberate misrepresentation of the capacity to respond to problematic situations, potentially a guarantee of disaster, is associated with ineffectual leadership (lower-right)

"Hidden" dynamic

As argued previously (Sustainability through the Dynamics of Strategic Dilemmas – in the light of the coherence and visual form of the Mandelbrot set, 2005), dissipative systems, and the M-set, offer a language through which to explore and identify viable patterns of sustainable relationship between essentially incompatible modes of behaviour or anti-theretical modes of thinking. It is these which are typically fundamental to the strategic dilemmas calling for leadership in psycho-social systems – whether intrapsychic, interpersonal or intergroup. It is the continuing search for the resolution of these dilemmas that characterizes the dynamic of such systems. Typically however the resolution is of four types:

- **stable** (perhaps exemplified by the "constancy of the heart"),
- **unstable** (exemplified by nonviable projects of every kind),
- a form of periodic stability (exemplified by cyclic patterns of interaction),
- chaotic variety (as with the many weird and wonderful, "improbable" relations between real people).
The apparently static nature of Figure 9 obscures the dynamic represented by the M-set. It also obscures the dynamic between forms of leadership and misleadership. The point was made earlier than in the process of risk taking under conditions of uncertainty in response to a challenge (that may itself be dynamically complex), leadership may necessitate:

- taking a risk, later to be proven mistaken and therefore framed as exemplifying misleadership
- misleading others, whether opponents (with whom subterfuge is an appropriate option for strategic leadership) or even some supporters (who do not comprehend the challenge) in order to mobilize adequate resources to respond appropriately -- both forms of misrepresentation which may be condemned as inappropriate

In effect the leader is obliged to "dance" back and forth across the above diagram according to the uncertainty and the nature of decisions about how to represent the situation for strategic effectiveness and to sustain support. Followers might indeed see this as a "dance" elegantly done -- and well-represented symbolically by a sword dance across quadrants formed by crossed swords or by a dance with a mirrored shadow (exemplified by the use of term in parliaments). The disaffected would see it as hypocrisy. Whether or not opponents also frame it as hypocrisy, they would be obliged to assess it in terms of skilled strategic maneuvering through subterfuge. Such oscillation (vacillation?) on the part of the leader, assailed by periods of doubt, may be understood as corresponding to a form of existential bipolar disorder.

Furthermore there is the subsequent challenge to be able to claim to have acted in good faith -- and to avoid the charge of having acted with dubious or self-interested intent, thereby justifying any charge of misleadership in the most problematic sense. It may indeed be extremely difficult to demonstrate that the choice of actions did not exemplify misleadership -- rather than leadership struggling dynamically with risk under conditions that required a shifting degree of deliberate misrepresentation. Clearly these are the conditions in which Bush and Blair would claim to have found themselves -- claiming the best of intentions (with divine benediction), where others may legitimately perceive those claims to be deliberately misleading.

It is appropriate to note that Figure 9 is presented such as to highlight the fact that emergent order is not a direct consequence of the action of leadership. The leadership offered by authority structures may actually get in the way of such emergence -- which may occur despite what leadership has to offer. Leadership may "get in the way" of its own agenda -- of its understanding of emergent possibilities. As the vertical prolongation of the central axis, new patterns of order emerge from the combination (or as the resultant) of the diagonal axes representing:

- the instrumental actions of leadership on the one hand and
- the imaginative reframing of perception represented by the other.

Of course the disastrous collapse of social order (at the lower end of the vertical axis) is also born of both (cf Jared Diamond, Collapse: how societies choose to fail or succeed, 2005).

As represented within the M-set, these emergent forms of order may be understood as the succession of forms above the central cardioid. Such a framing of emergence and appropriate governance may be especially comprehensible within classical Chinese cultural frameworks -- notably by the I Ching as a traditional tool of governors for understanding the conditions and possibilities and appropriateness of change. The diagonal axes would then represent the "creative" and the "receptive" from which new forms are generated. The extensive use of metaphor to enable imaginative comprehension of leadership options is a characteristic of that work (cf Transformation Metaphors derived experimentally from the Chinese Book of Changes (I Ching) for sustainable dialogue, vision, conferencing, policy, network, community and lifestyle, 1997)

As noted in the earlier paper with regard to dissipative systems and their illusory continuity, a very useful articulation of the challenge is in terms of dissipative systems about which the remarks of Kent Palmer (Steps to the Threshold of the Social: the mathematical analogies to dissipative, autopoietic, and reflexive systems, 1997) seem the clearest and most relevant for the above purpose. For him (pp 587-588):

Dissipative systems hold two strands of illusory continuity together. They concern the situation where there are two orders that are in imbalance so that one order is displacing the other. Notice that if there is only one order there cannot be a dissipative system. Also if the two orders are in balance or stasis there cannot be a dissipative system. A dissipative system is when there are two different orders or ordering mechanisms that are out of balance with each other so that one ordering mechanism is disordering the other and creating a boundary between the two ordering mechanisms where one is dominant and the other is being dominated.

Such language would seem to be a helpful way of handling the many fundamental strategic dilemmas that affect both the coherence of global debate and the experience of interpersonal relationships. The challenge is indeed one of two different "ordering" mechanisms, whether these are culturally defined (Huntington's "Clash of Civilizations", Snow's "Two Cultures", political cultures ( "right vs left", "mainstream vs alternative"), gender defined ("Men are from Mars and Women are from Venus"), or in terms of epistemological mindsets (Systems of Categories Distinguishing Cultural Biases, 1993).

As Palmer argues, this situation can be approached using the "imaginary" qualities of complex numbers, stressing the nature of the "illusion" involved:

This case has the basic form of vector arithmetic or the complex number system that holds the order of the real numbers together with the ordering of the imaginary numbers. The complex number system includes both real and imaginary numbers. The differentiation between the two is indeed imaginary because either number could be designated as real and the asymmetry between imaginary and real numbers is an illusion which comes directly from their conjunction not from the numbers.
"Real" vs "Imaginary"

To the extent that "leadership" is naturally to be associated in Figure 9 with "real", and "misleadership" with "imaginary", there is relevance to the earlier argument concerning their relationship (Sustainability through the Dynamics of Strategic Dilemmas -- in the light of the coherence and visual form of the Mandelbrot set, 2005)

In each case, the question is whether the tensions between the value-charged strategic polarities can be fruitfully dissociated into "real" and "imaginary" components such that the mathematics engender a sustainable boundary vital to psycho-social coherence -- without collapsing the dramatically opposed perspectives that characterize the polarity.

In a strategic context, "real" is associated with factual data. But as is evident in practice, proponents of opposing initiatives have divergent interpretations of "real" and of the weight to be attached to different "facts", held to be "true". Each is then free to accuse the other of responding to "imaginary" interpretations -- and this tends to be very sharply stated in debate (caricaturing the opposition with terms such as "dreamers", "deluded", "unrealistic", etc) regarding what is "false". In a sense each sees the opposition as responding to an unreal "image" of reality. It is the dynamics of disagreements of this nature that need to be held with a framework of requisite complexity -- transcending relativism -- in order for governance to articulate strategies that are sustainable.

There is a certain irony to the tendency of strategic proponents to procrastinate by pleading for more "facts" (monitoring, research, etc) prior to action -- or by calling for more "imaginative" thinking to respond more effectively to new kinds of crises or the inadequacies of previous strategies.

The argument here is that the kind of sustainability that would be sustainable -- rather than being itself a victim of these dynamics -- is at a level of abstraction to which the M-set usefully points. As a framework, it in no way denies the existence of the dynamics between constituencies with different understandings of what is real and what is imaginary. Rather the recognition of the M-set depends on those dynamics -- just as the 2D polarities within a tensegrity are essential to the emergence and viability of the 3D structure resulting from their configuration.

In this light the question becomes how to recognize and distinguish the strategic elements contributing to recognition of such an M-set. The need is to offer clearer understanding of the role of "real" and "imaginary", recognizing that "real" to one group may be "imaginary" to another. This reinforces the point made with regard to transforming the axes between "real" and "imaginary", or between "positive" and "negative".

Considering once again how such distinctions would be made in the absence of the cartesian understanding of axes, it is worth reflecting again on the notation used in the thinking basic to the I Ching, namely the system of trigrams configured in the Ho Tu or Lo Shu arrangements of the Ba Gua mirror basic to the discipline of Feng Shui (as discussed in the earlier paper). There the focus is on "directions" rather than axes. But clearly two distinct digrams (rather than trigrams) would provide an adequately complex notation to distinguish "positive" and "negative" on a "real" axis, with a second two to distinguish "positive" and "negative" on an "imaginary" axis. In this connection, it should not be forgotten that it was the exposure of Gottfried Wilhelm von Leibnitz to the I Ching that inspired his development of the binary coding system fundamental to computer operation.

The nature of the relationship between "real" and "imaginary" can be further considered in the light of the Chinese categories of "yang" and "yin" which are not fruitfully treated as "opposites". All relationships based on yin and yang are considered as relative. Mutual interaction must be considered, therefore, nothing can be defined as strictly yin or strictly yang. Yin and yang are symbolically represented by the Liang-I (two symbols). The Yang-I is represented by a continuous straight line and the Yin-I is represented by a broken line. The conditions to which they refer cannot be considered as permanent states. There is always dynamic movement which is encoded through combinations. The first group of these is called Szu-Hsaing. These four figures (digrams) are formed by combining the Yin-I and the Yang-I. The Szu-Hsaing represent the maximum number sets that can be formed by combining two differing elements in sets of two.

In contrast with the mathematics of the M-set, this Chinese system was designed to embody qualitative value contrasts (rather than purely quantitative value contrasts) and was notably used in the clarification of strategic options by the emperors of China. The I Ching was in fact required reading for the Chinese civil service for about 1,000 years. One might well ask what tools of comparable complexity and scope are currently used with respect to global governance.

Of particular interest is the polarity between "objective" approaches ("real") and "subjective" approaches ("imaginary"). This is notably evident in the "objective" attitude of mathematicians to complexity -- in comparison with the "subjective" attitudes associated with the psycho-social phenomena noted above. However it is the "real" nature of the 40 religious conflicts around the world -- driven by a sense of "positive" ("good") and "negative" ("evil") in this "imaginary" dimension -- that can be contrasted with the "unreality" of "bloodless" mathematics to those engaged in those bloody conflicts.