Wicked Problems and Clumsy Solutions: the Role of Leadership

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Abstract

We know a lot about organisational change but despite - or perhaps because - the numbers of change models around most change initiatives fail. This article suggests that this failure might be to do with our framing of the problem and consequent approach to resolving it. It suggests that differentiating between Tame, Wicked and Critical problems, and associating these with Management, Leadership and Command, might be a way forward. It then considers the role of default cultures and how these persuade us to engage 'elegant' - that is internally coherent - responses. These may be fine for Tame or Critical problems but Wicked problems need us to go beyond internally coherent approaches and adopt so called 'Clumsy Solutions' that use the skills of bricoleurs to pragmatically engage whatever comes to hand to address these most complex problems.

Keywords

Tame, Wicked, Critical, Leadership, Management, Command, Elegant, Clumsy.

The Problem of Change

In his 1990 book, *Managing on the Edge*, Richard Pascale provides a graph of business fads and fashions across time between 1950 and 1995. The graph reveals all the primary trends from Managing by Walking About to Organizational Culture to Business Process Reengineering and everything in between. Indeed, roughly every year a new fad comes along to displace the old in a never ending cycle of change about change. Strangely enough, even though we now seem to know more about change than ever before we still run up against the universal and apparently timeless problem of failure – roughly 75 per cent of all change programmes seem to fail (Grint, 1995). Very often we assume that change is the equivalent of restructuring, for example, the British National Health Service has spent inordinate amounts of money and time in trying to change itself but very often that change amounts to little more than a restructuring and relabelling of the organization rather than any radical attempt to rethink its purpose and realign it on that basis. In many ways, then, the NHS reforms look more like an endless cycle of centralization and decentralization so that the structure in 2008 looks remarkably similar to the structure in 1981 – it's déjà vu all over again.

In fact, if you look over most of the popular texts on change there is a certain familiarity about them. Granted, the number of elements in the change process differs and so does the order in which they should be attempted, but by and large they comprise something like this list of Ten Commandments:

1. An accepted need to change
2. A viable vision/alternative state
3. Change agents in place
4. Sponsorship from above
5. Realistic scale & pace change
6. An integrated transition programme
7. A symbolic end to the status quo
8. A plan for likely resistance
9. Constant advocacy
10. A locally owned benefits plan

Now, there is nothing wrong with this list, indeed, it's intuitively obvious that these kinds of issues need to be addressed when undertaking any kind of change, but the problem is that the list doesn't seem to work very well. It might be, then, that we never undertake 'any kind of change' we only ever undertake 'a particular kind of change'. In short, the universal solution fails precisely because no organizational change is the same as any other – there are always slight but significant variations that bedevil such approaches. Let us now turn to a different understanding of the nature of problems to see whether this might lead us out of the change maze.

The Problem of Problems: Tame, Wicked and Critical

Much of the writing in the field of leadership research is grounded in a typology that distinguishes between Leadership and Management as different forms of authority – that is legitimate power in Weber's conception – with leadership tending to embody longer time periods, a more strategic perspective, and a requirement to resolve novel problems (Bratton et al, 2004). Another way to put this is that the division is rooted partly in the context: management is the equivalent of *déjà vu* (seen this before), whereas leadership is the equivalent of *vu jàdé* (never seen this before) (Weick, 1993)·. If this is valid then the manager is required to engage the requisite process to resolve the problem the last time it emerged. In contrast, the leader is required to reduce the anxiety of his or her followers who face the unknown by facilitating the construction of an innovative response to the novel problem, rather than rolling out a known process to a previously experienced problem.

Management and Leadership, as two forms of authority rooted in the distinction between certainty and uncertainty, can also be related to Rittell and Webber's (1973) typology of *Tame* and *Wicked* Problems (Grint, 2005). A *Tame Problem* may be complicated but is resolvable through unilinear acts and it is likely to have occurred before. In other words, there is only a limited degree of uncertainty and thus it is associated with Management. Tame Problems are akin to puzzles – for which there is always an answer – and we might consider how F.W. Taylor (the originator of Scientific Management) epitomized this approach to problem solving – simply apply science properly and the best solution will naturally emerge. The (scientific) manager's role, therefore, is to provide the appropriate *processes* – the veritable standard operating procedure (SOP) - to solve the problem. Examples would include: timetabling the railways, building a nuclear plant, training the army, planned heart surgery, a wage negotiation, or enacting a tried and trusted policy for eliminating global terrorism.

A *Wicked Problem* is more complex, rather than just complicated – that is, it cannot be removed from its environment, solved, and returned without affecting the environment. Moreover, there is no clear relationship between cause and effect. Such problems are often intractable – for instance, trying to develop a National Health Service (NHS) on the basis of a scientific approach (assuming it was a Tame Problem) would suggest providing everyone with all the services and medicines they required based only on their medical needs. However, with an ageing population, an increasing medical ability to intervene and maintain life, a potentially infinite increase in demand but a finite level of economic resource there cannot be a scientific solution to the problem of the NHS. In sum we cannot provide everything for everybody; at some point we need to make a political decision about who gets what and on what criteria. This inherently contested arena is typical of a Wicked Problem and while we often turn a collective blind eye to such issues we cannot avoid making a decision at some point. So if we think about the NHS as the NIS – the National Illness Service – then we have a different understanding of the problem because it is essentially a series of Tame Problems: fixing a broken leg is the equivalent of a Tame Problem – there is a scientific solution to that and we know how to fix them. Or rather, suitably qualified medical professionals know how to fix them. So to such people your broken leg is a Tame Problem, but if you run (sorry, crawl) into a restaurant for your broken leg to be fixed it will become a Wicked Problem because it's unlikely that anyone there will have the knowledge or the resources to fix it. Thus the category of problems is subjective not objective – what kind of a problem you have depends on where you are sitting and what you already know.

Moreover, many of the problems that the NHS deal with – obesity, drug abuse, violence – are not simply problems of health, they are often deeply complex social problems that sit across and between different government departments and institutions. For example, knife crime is neither simply a medical problem nor a legal problem not a social problem – it is all three and many more besides, so attempts to treat it through a single institutional framework are almost bound to fail. Moreover, because there often no 'stopping' points with Wicked Problems – that is the point at which the problem is solved (e.g., there will be no more crime because we have solved it) we often end up having to admit that we cannot solve Wicked Problems. Conventionally, we associate leadership with precisely the opposite – the ability to solve problems, act decisively and to know what to do. But Wicked Problems often embody the inverse of this – we cannot solve them, and we need to be very wary of acting decisively precisely because we cannot know what to do. If we knew what to do it would be a Tame Problem not a Wicked Problem. Yet the pressure to act decisively often leads us to try to solve the problem as if it was a Tame Problem. When Global Warming first emerged as a problem some of the responses concentrated on solving

the problem through science (a Tame response), manifest in the development of biofuels; but we now know that biofuels appear to denude the world of significant food resources so that what looked like a solution actually became another problem. Again, this is typical of what happens when we try to solve Wicked Problems – other problems emerge to compound the original problem. So we can make things better or worse – we can drive our cars slower and less or faster and more – but we may not be able to solve Global Warming, we may just have to learn to live with a different world and make the best of it we can. In other words, we cannot start again and design a perfect future – though many political and religious extremists might want us to.

The 'we' in this is important because it signifies the importance of the collective in addressing Wicked Problems. Tame problems might have individual solutions in the sense that an individual is likely to know how to deal with it. But since Wicked Problems are partly defined by the absence of an answer on the part of the leader then it behoves the individual leader to engage the collective in an attempt to come to terms with the problem. In other words, Wicked Problems require the transfer of authority from individual to collective because only collective engagement can hope to address the problem. In other words, there is a huge degree of uncertainty involved in Wicked Problems and thus it is associated with *Leadership*. That uncertainty implies that leadership, as I am defining it, is not a science but an art – the art of engaging a community in facing up to complex problems. The metaphor of the Wheelwright might be appropriate here. Phil Jackson (1995: 149-51), coach of the phenomenally successful Chicago Bulls basketball team, makes this point well. In the 3rd century BC the Chinese Emperor Liu Bang celebrated his consolidation of China with a banquet where he sat surrounded by his nobles and military and political experts. Since Liu Bang was neither noble by birth nor an expert in military or political affairs, one of the guests asked one of the military experts, Chen Cen, why Liu Bang was the Emperor. Chen Cen's response was to ask the questioner a question in return: 'What determines the strength of a wheel?' The guest suggested the strength of the spokes' but Chen Cen countered that two sets of spokes of identical strength did not necessarily make wheels of identical strength. On the contrary, the strength was also affected by the spaces between the spokes, and determining the spaces was the true art of the wheelwright. Thus while the spokes represent the collective resources necessary to an organization's success – and the resources that the leader lacks – the spaces represent the autonomy for followers to grow into leaders themselves.

The leader's role with a Wicked Problem, therefore, is to ask the right *questions* rather than provide the right *answers* because the answers may not be self-evident and will require a collaborative process to make any kind of progress. Examples would include: developing a transport strategy, or an energy strategy, or a defence strategy, or a national health system or an industrial relations strategy. Wicked Problems are not necessarily rooted in longer time frames than Tame Problems because oftentimes an issue that appears to be Tame can be turned into a Wicked Problem by delaying the decision or reframing the problem (Fairhurst, 2005). For example, President Kennedy's actions during the Cuban Missile Crisis were often based on asking *questions* of his civilian assistants that required some time for reflection – despite the pressure from his military advisers to provide instant *answers*. Had Kennedy responded to the American Hawks we would probably have seen a third set of problems that fall outside the Leadership/Management dichotomy. This third set of problems I will refer to as *Critical*.

A *Critical Problem*, eg a 'crisis', is presented as self-evident in nature, as encapsulating very little time for decision-making and action, and it is often associated with authoritarianism – *Command* (Howieson and Kahn, 2002; Cf. Watters, 2004). Here there is virtually no uncertainty about what needs to be done – at least in the behaviour of the Commander, whose role is to take the required decisive action – that is to provide the *answer* to the problem, not to engage processes (management) or ask questions (leadership). A commander resembles a White Elephant – in both dictionary definitions: as a mythical beast that is itself a deity, and as an expensive and foolhardy endeavour. Indeed, in Thai history the King would give an albino Elephant to his least favoured noble because the special dietary and religious requirements would ruin the noble – hence the connection between the god and ruination. Translated into Critical Problems I suggest that for such crises we do need decision-makers who are god-like in the decisiveness and their ability to provide the answer to the crisis, but the problem arrives when our decision-makers really come to believe that they are gods. Of course, it may be that the Commander remains privately uncertain about whether the action is appropriate or the reframing of the situation as a crisis is persuasive, but that uncertainty will probably not be apparent to the followers of the Commander. Examples would include the immediate response to: a major train

crash, a leak of radioactivity from a nuclear plant, a military attack, a heart attack, an industrial strike, the loss of employment or a loved one, or a terrorist attack such as 9/11 or the 7 July bombings in London.

That such 'situations' are constituted by the participants rather than simply being self-evident is best illustrated by considering the way a situation of ill-defined threat only becomes a crisis when that threat is defined as such. For example, financial losses – even rapid and radical losses like the run on Northern Rock in the UK or the difficulties of Fannie Mae and Freddie Mac in the USA – do not constitute a 'crisis' until the shareholders decide to sell in large numbers or the government steps in. Even then the notion of a crisis does not emerge objectively from the activity of selling or the point of intervention but at the point at which a 'crisis' is pronounced by someone significant and becomes accepted as such by significant others.

These three forms of authority – that is legitimate power – Command, Management and Leadership are, in turn, another way of suggesting that the role of those responsible for decision-making is to find the appropriate Answer, Process and Question to address the problem respectively.

This is not meant as a discrete typology but an heuristic device to enable us to understand why those charged with decision-making sometimes appear to act in ways that others find incomprehensible. Thus I am not suggesting that the correct decision-making process lies in the correct analysis of the situation – that, again, would be to generate a deterministic approach – but I am suggesting that decision-makers tend to legitimize their actions on the basis of a persuasive account of the situation. In short, the social construction of the problem legitimizes the deployment of a particular form of authority. Moreover, it is often the case that the same individual or group with authority will switch between the Command, Management and Leadership roles as they perceive – and constitute – the problem as Critical, Tame or Wicked, or even as a single problem that itself shifts across these boundaries. Indeed, this movement – often perceived as 'inconsistency' by the decision maker's opponents – is crucial to success as the situation, or at least our perception of it, changes.

That persuasive account of the problem partly rests in the decision-makers access to – and preference for – particular forms of power, and herein lies the irony of 'leadership': it remains the most difficult of approaches and one that many decision-makers will try to avoid at all costs because it implies that, (1) the leader does not have the answer, (2) that the leader's role is to make the followers face up to their responsibilities (often an unpopular task) (Heifetz, 1994), (3) that the 'answer' to the problem is going to take a long time to construct and that it will only ever be 'more appropriate' rather than 'the best', and (4) that it will require constant effort to maintain. It is far easier, then, to opt either for a Management solution – engaging a tried and trusted process – or a Command solution – enforcing the answer upon followers – some of whom may prefer to be shown 'the answer' anyway.

The notion of 'enforcement' suggests that we need to consider how different approaches to, and forms of, power fit with this typology of authority, and amongst the most useful for our purposes is Etzioni's (1964) typology of compliance and Nye's differentiation between Weak Power and Strong Power.

Nye's distinction between Hard and Soft Power. Nye (2004) has suggested that we should distinguish between power as 'soft' and 'hard'. 'Soft', in this context, does not imply weak or fragile but rather the degree of influence derived from legitimacy and the positive attraction of values. 'Hard' implies traditional concepts of power such as coercion, physical strength, or domination achieved through asymmetric resources rather than ideas. Thus the military tend to operate through 'hard' power while political authorities tend to operate through ideological attraction – 'soft power'. Of course, these are not discrete categories – the military has to 'win hearts and minds' and this can only be through 'soft power' while politicians may need to authorize coercion – hard power. Indeed, as Nye (2004: 1) recognizes, 'The Cold War was won with a strategy of containment that used soft power along with hard power.' While Soft Power seems appropriate to Leadership with its requirement for persuasion, debate and ideological attraction, Hard Power clearly fits better with Command, but Management sits awkwardly between the two rooted in both or neither, because coercion is perceived as inappropriate within a free labour contract, while ideological attraction can hardly explain why all employees continue to turn up for work. The limits of using an analysis based on Hard and Soft Power might also be transcended by considering Etzioni's (1964) alternative typology.

Etzioni distinguished between Coercive, Calculative and Normative Compliance. Coercive or physical power was

related to total institutions, such as prisons or armies; Calculative Compliance was related to 'rational' institutions, such as companies; and Normative Compliance was related to institutions or organizations based on shared values, such as clubs and professional societies. This compliance typology fits well with the typology of problems: Critical Problems are often associated with Coercive Compliance; Tame Problems are associated with Calculative Compliance and Wicked Problems are associated with Normative Compliance.

Again, none of this is to suggest that we can divide the world up objectively into particular kinds of problems and their associated appropriate authority forms, but that the very legitimacy of the authority forms is dependent upon a successful rendition of a phenomenon as a particular kind of problem. In other words, while contingency theory suggests precisely this (rational) connection between (objective) context (problem) and (objective) leadership style (authority form), I am suggesting here that what counts as legitimate authority depends upon a persuasive rendition of the context and a persuasive display of the appropriate authority style. In other words, success is rooted in persuading followers that the problematic situation is either one of a Critical, Tame or Wicked nature and that therefore the appropriate authority form is Command, Management or Leadership in which the role of the decision-maker is to provide the answer, or organize the process or ask the question, respectively. In effect, one particular skill that all three decision-modes require is that of reframing problems – seeing the problem differently so as to rethink how it might be addressed differently (Fairhurst, 2005).

This typology can be plotted along the relationship between two axes as shown below in figure one below with the vertical axis representing increasing uncertainty about the solution to the problem – in the behaviour of those in authority – and the horizontal axis representing the increasing need for collaboration in resolving the problem. Again, it should be recalled that the uncertainty measure used here is not an objective element of the situation but the way the situation is constituted by those in authority. Of course, that authority and problem may be disputed by others but the model assumes that successful constitution of a problem as Wicked, Tame or Critical provides the framework for particular forms of authority. What might also be evident from this figure is that the more decision-makers constitute the problem as Wicked and interpret their power as essentially Normative, the more difficult their task becomes, especially with cultures that associate leadership with the effective and efficient resolution of problems. In other words, a democratic contender seeking election on the basis of approaching the problem of global terrorism as a Wicked Problem – that requires long term and collaborative leadership processes with no easy solutions, and where everyone must participate and share the responsibility – might consider this a very problematic approach because they may be less likely they are to be elected. Hence the Irony of Leadership: it is often avoided where it might seem most necessary.

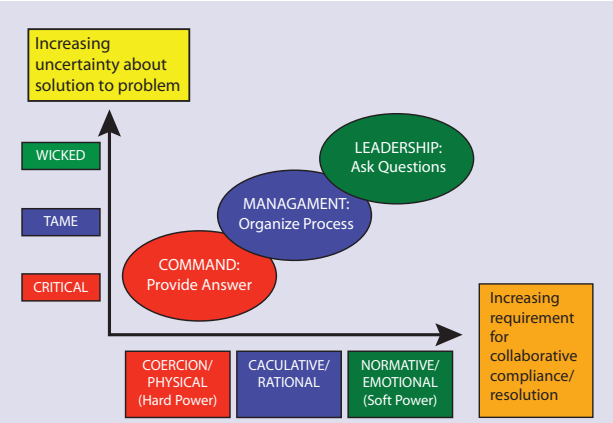

Figure 1 *– Typology of problems, power and authority*

This might be regarded as obvious to many people – so why do we remain unable to effect such change? To answer that I want to turn to Cultural Theory and explore some so called 'Elegant Solutions'.

Culture, Elegance and Clumsiness

Mary Douglas (2003/8) argued that we could probably capture most cultures on the basis of two discrete criteria: Grid and Group. Grid relates the significance of roles and rules in a culture – some are very rigid – such as a government bureaucracy - but others are very loose or liberal – such as an informal club. Group relates to the importance of the group in a culture – some cultures are wholly oriented around the group – such as a football team - while others are more individually oriented – such as a gathering of entrepreneurs. When these points are plotted on a two by two matrix the following appears

Where a culture embodies both High Grid and High Group we tend to see rigid hierarchies, such as the military. Where the culture remains High Group oriented but lacks the concern for rules and roles in Low Grid we see Egalitarian cultures, epitomised by those organizations where the group meeting is sacred and the search for

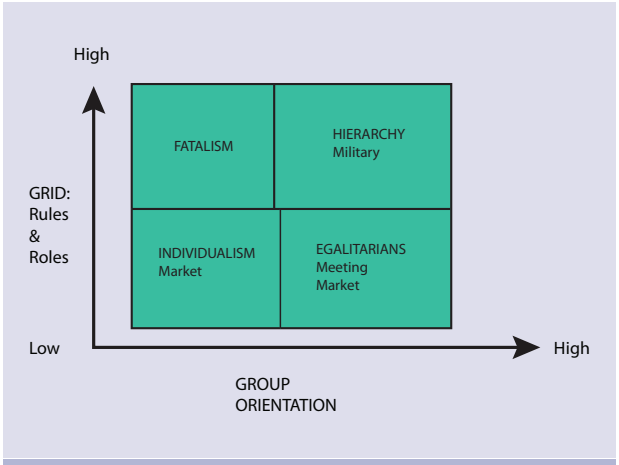

Figure 2 *–Four primary ways of organising social life*

consensus critical. Where the Grid remains low and is matched by an equal indifference to the Group, we tend to see Individualist cultures – the land of entrepreneurs, rational choice, and market loving politicians for whom any notion of the collective or rules is perceived as an unnecessary inhibitor of efficiency and freedom. The final category is that of the Fatalist, where the group dimension is missing but the isolated individuals believe themselves to be undermined by the power of rules and roles.

Douglas argued that these four cultural archetypes were heuristics rather than mirrors of society – most of us would find ourselves bordering regions or sitting across them rather than sitting wholly within one region but nevertheless she regarded the typology as a useful way for beginning a conversation about cultures. What is clear is that such cultures often tend to be self-supporting and internally consistent. In other words, hierarchists perceive the world through hierarchist lenses such that problems are understood as manifestations of the absence of sufficient rules or the enforcement of rules. For example, knife crime is a consequence of weak rules and weak enforcement of rules. In contrast, egalitarians see the same problem as one connected to the weakness of the collective community – it is less about rules and more about the community generating greater solidarity to solve the problem. Individualists would have little faith in this – the problem is obviously (for them) to do with the individual gang members not having a responsible job and opportunities to better themselves – perhaps even to use their entrepreneurial skills to develop innovations to detect and deter knife crime. Fatalists, however, have given up. Many Fatalists who live on estates where knife crime is perceived to be commonplace often remark about their inability to do anything about it – they are not strong enough as individuals to face up to the gangs and believe that if they did so the law would not support them.

Now the problem is that such internally consistent – or Elegant – modes of understanding the world are fine for dealing with Critical or Tame Problems because we know how to solve them and previous approaches worked. Individualists can solve the problem of decreasing carbon emissions from cars – a Tame problem open to a scientific solution, but they cannot solve global warming – a Wicked Problem. Egalitarians can help ex-offenders back into the community – a Tame Problem – but they cannot solve crime – a Wicked Problem. And Hierarchists can improve rule enforcement for the fraudulent abuse of social services – a Tame Problem – but they cannot solve poverty – a Wicked Problem. Indeed, Wicked Problems don't offer themselves up to be solved by such Elegant approaches precisely because these problems lie outside and across several different cultures.

For example, if the rational choice world of individualists rooted in market freedoms could solve all problems then we'd have difficulty explaining how the markets have so evidently failed in leaving us becalmed by the Credit Crunch. If the world of rational argument and logic was so powerful then how come we cannot agree about what to do about Global Warming? Surely if we were logical we would be able to abandon military conflict as the way to solve disputes? Well not if we are not as rational as we think. If we are as much the victim of our emotions and our peer groups as of logic then such 'failings' seem rather more understandable – even if the solution is not obvious. Certainly the rash of recent books on decision-making (Ariely, 2008; Mlodinow, 2008; Tavris and Aronson, 2007) suggest that we really are not as rational as we claim and we have known since Festinger's original work in the 1950s that we are as much rationalizing as rational (Festinger, et al, 2008/1956). As such the possibility that the elegance of the rational, logical world of the individualists is sufficient to address Wicked Problems seems very limited.

Perhaps we should rely more upon the elegance of the Hierarchists' model, where rules and power are deemed sufficient to address such issues. Yet we know that the veritable mesh of rules, targets and KPIs that have been thrown in heaps upon the Public Sector in the UK have achieved only marginal results at best and, as I write this, are already in the process of being scaled back drastically. Thus where supermarket workers alter the sell-by-dates of produce to comply with their targets and injured patients wait in ambulances outside Accident and Emergency (A&E) departments to avoid encroaching on the four hour target for seeing all A&E patients, all concern for what the

target is intended to achieve is sacrificed to the target itself. This is not because the target needs more regular updating, it is because the target is merely an element of the system but it is not the system and target setting tends to replace the ends with the means, the system with the element (Chapman, 2004; Seddon, 2008).

We need not worry about the role that Fatalists might play in resolving Wicked Problems because by and large they don't, but the Elegant Egalitarians don't offer us much hope either. Egalitarians are good at generating debates but not at delivering decisions and often times those decisions are oriented towards the vagaries of groupthink and the group displacement of responsibility rather than constructively addressing Wicked Problems (Janis, 1982; t'Hart, 1994).

Does this mean that we should abandon Egalitarians, Hierarchists and Individualists to their own fate and seek some other utopian alternative? Hardly, because this is all we have. So the issue is less to do with looking for utopia and more to do with recognizing that Wicked Problems are Wicked precisely because they reside at the interfaces of these contrary cultures and thus we need all of them. Rather as the Scissors, Paper, Stone game works, no single (elegant) hand is sufficient for gaining momentum here but all of them together have something to offer. In other words, while Hierarchists are good at decision-making and rule enforcement, as a result they tend not to be innovative and are prone to degenerate into corruption – unless the latter event is prevented by Egalitarians and the former by Individualists. Similarly, while Egalitarians are good at generating debate they tend to be unable to reach decisions and quite likely to repress individuals who dissent from the collective view. Only Hierarchists can help them out of the former fix and only Individualists can help them out of the latter fix. Finally, while individualists are great at innovations and keen to preserve liberty and market freedom, markets are unable to act when they fail – that is where Hierarchists step in as the state has done on both sides of the Atlantic when the housing markets have recently failed. And without Egalitarians there would be no collective system for the protection of individuals from the very same state. This individual weakness of each Elegant (single mode) solution and the mutual requirement for support leads us to the final aspect of the problem: Clumsy Solutions (Verweij and Thompson, 2006).

Why Elegant Approaches Don't Solve Wicked Problems, But Clumsy Solutions Might

If single mode (Elegant) solutions can only ever address elements of Wicked Problems we need to consider how to adopt all three in what are called Clumsy Solutions. In fact we need to eschew the elegance of the architect's approach to problems: start with a clean piece of paper and design the perfect building anew – and adopt the world of the *Bricoleur* the do-it-yourself craftworker. Or to adopt the rather more prosaic language of Kant, we need to begin by recognizing that 'Out of the crooked timber of humanity no straight thing was ever made'. Put another way, to get some purchase on Wicked Problems we need to start by accepting that imperfection and making do with what is available is not just the best way forward but the only way forward. In this world we should avoid alienating significant constituencies – but note that progress does not depend upon consensus – that would be too elegant and would take too long! We need to start by asking 'what do we all (or at least most of us) agree on?' We also need to assume that no-one has the solution in isolation and that the problem is a system not an individual problem and not a problem caused by or solved by a single aspect of the system. Let us take Global Warming to illustrate this (See Verweij et al, 2006 and Verweij 2006 for detailed accounts of this).

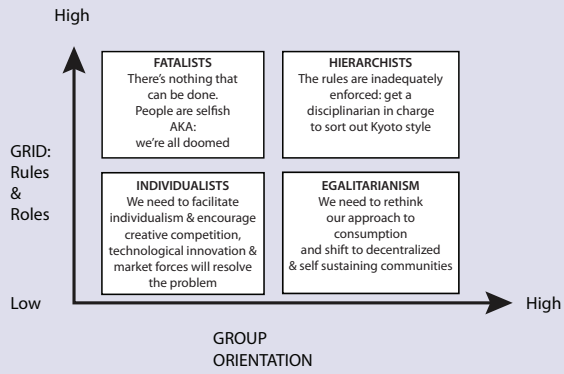

Figure 3 *– Elegant (single mode) Solutions to Global Warming*

Figure 3 above summarizes the issue: Hierarchists consider the problem to be a result of inadequate rules and inadequate enforcement of rules. In effect a better Kyoto style agreement is necessary. But Egalitarians might argue that this misunderstands the problem - it isn't the rules that need altering and enforcing but our communal attitude to the planet that needs to change – we must develop more sustainable ways to live not just obey the

rules better. But for Individualists both alternatives misunderstood the problem – and therefore the solution. The solution is to encourage the freedoms that will facilitate individual responses to the problem, including supporting the work of entrepreneurs who can generate the technological innovations that will save us. For Fatalists, of course, there is no hope – we are all doomed. The problem here is that none of these Elegant solutions actually generate sufficient diversity to address the complexity of the problem. Rules might facilitate safe driving but they would not prove adequate to saving the planet. Nor can we simply abandon our centralized cities and all live in self-sufficient communities in the countryside: that might have been a viable option if we were starting from scratch and we could have designed living space with a blank piece of paper to hand – but that architectural approach is no longer viable – we need to take the *bricoleur's* line and start from where we are. Similarly, although technological innovations will be critical and market pressures may help, we cannot rely on these to solve the problem. Indeed, global warming may not be solvable in the sense that we can go back to the beginning and reclaim an unpolluted world and because the 'facts' remain disputed and – more importantly – different interests are at stake in different approaches to the 'solution', the best we can hope for is a politically negotiated agreement to limit the damage as soon as possible. That calls for a non-linear, nay 'crooked', response to stitch together an inelegant or Clumsy solution combining all three modes of understanding and making use of the fatalists acquiescence to go along with the changing flow of public opinion and action. As shown below in figure 4 below, what we actually need is to use all three frameworks to make progress here.

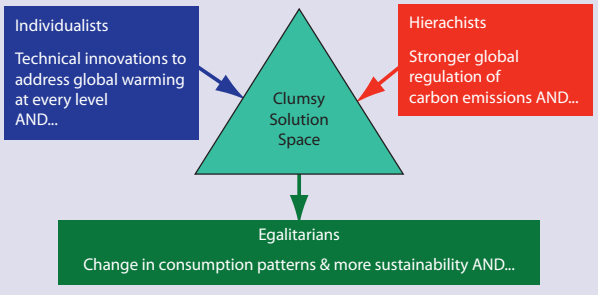

Figure 4 *– Clumsy Solution for Wicked Problem of global warming*

The attempt to Tame a Wicked problem through a scientific/rational solution is to treat the problem as is you were an architect facing a Tame Problem not a *bricoleur* facing a Wicked Problem. In effect, the quest for elegant (scientific) solutions is part of the problem not the solution. If there was an elegant (scientific) solution it would be a Tame Problem. Wicked Problems are inherently political in nature not scientific or 'rational' and progress is likely to be via a Clumsy negotiation of the common ground. For this our *bricoleur* actually needs to acquire Aristotle's *phronesis* – the Wisdom to acknowledge that the situation is not like any other, combined with the experience to recognize that such Wicked Problems require a qualitatively different approach from Tame or Critical Problems (Grint, 2007). So how do you address wicked problems?

Figure 5 below implies that a critical component of a necessarily clumsy solution is to combine elements of all three cultural types: the individualist, the egalitarian and the hierarchist, into a (clumsy) solution-space and within each of these types are techniques that, when combined, might just prise the Wicked Problem open enough to make some progress with it. Let us address each of these in turn.

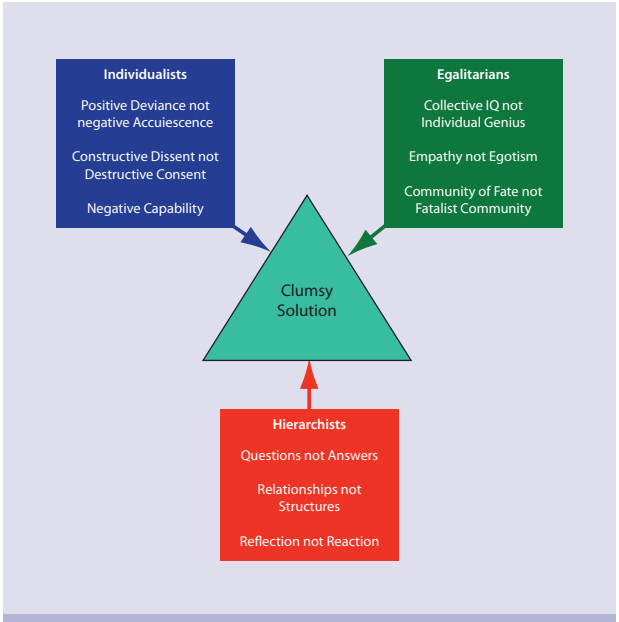

Figure 5 *– Clumsy Approaches to Wicked Problems*

Since every Wicked Problem is slightly different from all others, and since we cannot know the answer initially (otherwise it would be a Tame or Critical Problem) there is no guaranteed method available, but the skill of the *bricoleur* (Gabriel, 2002; Strauss, 1966: 21) is in trying new things out, setting loose experiments to see what works and what doesn't, and all this requires an initial acceptance that you – our great esteemed leader – do not have the answer. *Bricoleurs* make progress by stitching together whatever is at hand, whatever needs to be stitched together, to ensure practical success. This is not, then, the clean world of analytic models and rational plans for progress to perfection, this is the world where Gabriel's

(2002: 139) wise leaders are 'opportunistic, ad hoc, devious, creative and original'. The assumption that wise leadership can be reduced to this might strike the reader as rather inglorious, even mundane, a reflection also captured in Lindlom's ground-breaking claim in 1959 that most decision-making mechanisms were little more than 'muddling through', as he noted in 1983:

> Incrementalism is a common, though not universal, obvious feature and useful method of policy-making, as well as personal decision making. Only a careless - at the same time overly tidy - and pretentious social science could have developed a conventional view of decision making so naive that incrementalism could strike many as a great clarification of decision strategies. I believe that none of my children saw anything noteworthy in the article or in the concept of incrementalism until their education had confused their earlier commonsense insights.

So the first step here is for the hierarchist to acknowledge that the leader's role has to switch from providing the answers to asking the questions. Such questions demonstrate that the problem facing the organization is not of the common-garden variety – this is something different that needs a different response. In other words the leader should initiate a different narrative that prepares the collective for collective responsibility. Indeed, the reason that this sits within the Hierarchists' camp is that only the hierarchical leader has the authority to reverse his or her contribution from one of answers to one of questions.

If we consider the pre Katrina briefing for George Bush by his experts it perfectly encapsulates the approach – in reverse. When Max Mayfield, National Hurricane Centre says to the President, "I don't think anyone can tell you with any confidence right now whether the levees will be topped or not but it's obviously a very very grave concern", there is no resulting question from Mr Bush such as – "So what will happen if the levees are topped? Or, "If that happens what do we need to be prepared for?" Similarly, when Michael Brown, Director FEMA, tells him, "My gut tells me this is going to be a bad one and a big one … I don't know whether the dome roof can withstand a cat 5 hurricane", the President does not say 'So where can we put these people that would be safe?' Again, note here that we should not expect Mr Bush to know the answer to the problems caused by a category 5 hurricane – that is not his job; but his job is to categorize problems and – if they are Wicked, or look like being Wicked because the US has never experienced such a hurricane before – ask the appropriate questions. As it is Mr Bush appeared to categorize Katrina as a Tame Problem because he did not ask a single question of his experts, he just went on national TV and said, "I want to assure the folks at home that we are fully prepared." Nor can we heap the blame for the ensuing catastrophe solely on Mr Bush's shoulders because the role of his advisers is to ensure their message gets through. In other words, both Brown and Mayfield should have said at the end of the briefing, 'Mr President, before you go on TV to reassure the people that everything is in hand, could we just go back to the problem of the levees and the dome roof to think through what might happen if neither hold?' That neither does merely compounds the crisis about to occur. Linked to this switch in approaches from expert to investigator is a related requirement that Hierarchists are most suited for: Relationships not Structures.

H2: Relationships not Structures

Hierarchists have long resorted to rules and the enforcement of rules through power to solve problems and while this may be effective for routine (Tame) aspects of hierarchies or for Crises, it is clear from the work on social networks and systems theory that organizational structures are empty vessels until populated by the relationships that make them work. In other words, a 'university' building without students or teachers is not a university. Thus while we regularly restructure our organizations (the National Health Service has been restructured almost every year for the last 25 years) the perception of those working within restructured organizations is often that little has changed. This is usually because we have mistaken the structure for the relationships that make the structure work. Indeed, it is probably true that good relationships can transcend a poor structure but not the other way around.

Traditionally, change models imply that if failure occurs despite the model it must be because the leader has failed to pull the right levers in the right sequence. But this machine metaphor and its accompanying notion of power as a possession is precisely why leaders find change so difficult – because power is not something you can possess and thus there are no levers to pull. If power was a possession we would be unable to explain why mutinies occur in that most coercive of hierarchies, the military at war. If soldiers refuse to obey (and accept that

the consequences may be dire) then generals are necessarily resistable in principle. Hence when you here yourself saying the dreaded words 'I'm sorry but I didn't have any choice' – you are almost certainly lying to yourself because you can always say no – and take the consequences. Of course, sometimes the choice is merely one of two evils, but that remains a choice. Now all this means that change cannot be ordered from above by leaders who pull the right levers of power in the right sequence because power is a relationship and change depends upon the relationships between leaders and followers: in effect it is followers that make or break change strategies not leaders alone because organizations are systems not machines. If followers choose not to obey – or to comply is such a way that little progress is made – then the greatest strategy in the world will probably fail.

H3: Reflection not Reaction

The quest for decisive action is typically what we expect from our hierarchical leaders and this expectation has a long history back into the fabled past of heroes and gods. Indeed, being decisive is fine - if you know what to do… but if you know what to do then it isn't a Wicked Problem it's a Tame or Critical Problem. However, if you don't know what to do such pressure may lead to catastrophe: you may have acted decisively but that may be decisively wrong. It isn't good enough to say that the best course of action in an ambiguous situation is to do something rather than nothing for two reasons. One, if you are very close to the cliff edge and the fog descends (metaphorically or in reality) then acting decisively might take you over the edge. If, on the other hand you just pause for as long as the mist persists then you might be late home but at least you will get home. Two, we often conflate 'doing nothing' with 'reflection' but they are not the same thing. The former implies indecisiveness, indolence and weakness, while the latter implies a proactive philosophical assessment of the situation. Indeed, we could turn this issue around and note how often 'being decisive' actually can be reduced to mere reaction, being driven by somebody else's agenda or by the insecurity of an ambiguous situation to make a mistake. Again, the hierarchical leader can manage this best by the construction of a narrative explanation – to do otherwise is to risk being accused of weakness and indecisiveness. So what can the Individualist offer us to support the Hierarchist?

Individualist

I1. Positive Deviance not Negative Acquiescence

In 1990 Jerry and Monique Sternin went to Vietnam for *Save the Children* to consider the utility of Maria Zeitlin's (1990) work on Positive Deviance: the idea that there were people within organizations who had already worked out the solution to many organizational problems often related to the role of culture. Why, the Sterns wondered, were some Vietnamese children well nourished in the midst of general malnourishment? Their answer was because the mothers of the well-nourished children were Positive Deviants – they deviated from mainstream culture in such a way that the outcomes were beneficial for their children. That mainstream culture generated a very conventional wisdom on malnutrition – it was TBU: true but useless that malnourishment was the combined effect of poor sanitation, poor food-distribution, poverty and poor water. But since addressing all of these would take an inordinate amount of time it was True but Useless information. On the other hand, some children – and not the highest status children – were well nourished because their mothers ignored the conventional culture that mothers should:

- Avoid food considered as low class/common – such as field shrimps and crabs
- Not feed children with diarrhoea
- Let children feed themselves or feed them twice a day at the most.

Instead they:

- Used low class/common food
- Fed children with diarrhoea – it's critical to recovery
- Actively fed children many times during the day (self-fed children drop food on floor so it's contaminated and children's stomachs can only take a finite amount of food at any one time so even feeding them twice a day was inadequate).

The second element of this approach – having understood the dangers of negatively acquiescing to the dominant culture and worked out how the individualist-oriented positive deviants succeeded in raising healthy children, was to persuade the positive deviants to teach the rest of the community their techniques. In short the technique requires the enabling of self-adopting behaviours not the teaching of new knowledge in a class-

room. Of course, for external experts, the realization that your role is extremely limited runs against the grain but these problems are not vehicles for ego massages. The second of the individualist techniques worth considering is that of Negative Capability.

I2: Negative Capability

The poet Keats called 'Negative Capability'[1] – the ability to remain comfortable with uncertainty, and Wicked Problems are inherently uncertain and ambiguous. Worse, since we seem to have developed an image of leadership that conjoins decisiveness to success we expect our leaders to cut their way through the fog of uncertainty with zeal. Yet by definition Wicked Problems remain ambiguous, so the real skill is not in removing the uncertainty but in managing to remain effective despite it. Stein's (2004) comparison of decision-making in Apollo 13 and at Three Mile Island captures this issue well in situations where experience is critical to providing help in stressful situations. Thus the 'cosmology episodes' that strike both Apollo 13 and Three Mile Island – when 'the world no longer seems a rational, orderly system' - provoke different responses from those responsible for decision-making, or rather, what Weick (1995) calls sense-making - imposing a framework of understanding upon a literally senseless world. 55 hours into the 1970 Apollo 13 mission a loud explosion – the 'cosmology episode' left the astronauts short of food, oxygen, power, water – and hope. But avoiding the natural temptation to jump to conclusions the ground crew through slow, careful analysis of the problems – and through the construction of a makeshift carbon dioxide scrubber (typical of the *bricoleur's* approach) – enabled Apollo 13 to return safely. In contrast, in the 1979 Three Mile Island nuclear disaster the 'Cosmology episode' –led to instant actions being taken which unwittingly made the situation worse. In effect they were decisive but wrong and just to compound the situation they then denied any evidence suggesting that the problem had not been resolved. So the ability to tolerate anxiety but to ensure it does not become excessive (leading to panic) or denied (leading to inaction) generated different sense-making actions. In the Apollo 13 case sense-making facilitated anxiety toleration while action was taken to resolve the problem; on Three Mile Island sense-making subverted the anxiety and ensured subsequent inaction which compounded the problem. Thus, the quest for the certainty of an elegant solution is sometimes a mechanism for displacing the anxiety of ambiguity that is a condition of Wicked Problems.

I3: Constructive Dissent not Destructive Consent

Finally, Individualists are excellent at resisting the siren calls of both hierarchists and egalitarians to fall in line, either to the rules or the group. Since Milgram's (1961) and Zimbardo's (2008) infamous compliance experiments in 1960s we have known that most people, most of the time, comply with authority even if that leads to the infliction of pain upon innocent others, providing the rationale is accepted by the followers, they are exempt from responsibility, and they engage in harm only incrementally. Put another way, the difficulty for our Leader facing a Wicked Problem and seeking to use elements of the hierarchist and the egalitarian in a Clumsy approach is not of securing consent but dissent. Consent is relatively easily acquired by an authoritarian but it is cannot address Wicked Problem because such consent is often destructive: subordinates will acquiesce to the enfeebling of their organization rather than challenge their boss through Constructive Dissent. Destructive Consent, then, is the bedfellow of Irresponsible Followership and a wholly inadequate frame for addressing Wicked Problems.

An alternative approach is to start from the inherent weakness of leaders and work to inhibit and restrain this, rather than to assume it will not occur. Otherwise, although omniscient leaders are a figment of irresponsible followers' minds and utopian recruiters' fervid imagination, when subordinates question their leader's direction or skill these (in)subordinates are usually replaced by those 'more aligned with the current strategic thinking' – otherwise known as Yes People. In turn, such subordinates become transformed into Irresponsible Followers whose advice to their leader is often limited to Destructive Consent: they may know that their leader is wrong but there are all kinds of reasons not to say as much, hence they consent to the destruction of their own leader and possibly their own organization too. Only individualists are likely to save us from this danger because they so often deny the authority of either the hierarchy or the group to make decisions on their behalf. So what about egalitarians – why do we need them?

Egalitarians

E1: Collective intelligence not individual genius

Typically, we attribute both success and failure to individual leaders. In fact the more significant the success or failure the more likely we are to do this, even though we usually have little evidence for linking the event to the individual (Bligh and Schyns, 2007; Rosenzweig, 2005). Yet when we actually examine how success and failure occurs it is more often than not a consequence of social rather than individual action. For example, Archie Norman, the British retail entrepreneur, rescued Asda from near bankruptcy in 1991 and sold it to Wal-Mart for £6.7bn in 1999. But underlying this phenomenal success was not the work of an isolated individual genius but a talented team including, at board level Justin King (subsequently CEO Sainsbury), Richard Baker (subsequently CEO Boots), Andy Hornby (subsequently CEO HBOS), and Allan Leighton (subsequently Chair Royal Mail). In short, Asda's success was built on collective intelligence not individual genius. This approach is particularly important to Wicked Problems because they are not susceptible to individual resolution. In other words, Wicked Problems demand the collective responses typical of systems not individuals – it is the community that must take responsibility and not displace it upon the leader (Heifetz, 1994). This brings us to the next aspect of Egalitarian techniques: building a community of fate.

E2: Community of Fate not a Fatalist Community

When Hernan Cortes arrived in what is now 'Mexico' in 1519 he had barely 400 soldiers, 16 horsesmen and a few cannon, yet this motley group managed to displace the Aztec Empire that had dominated the region for a century. Cortes began his conquest by turning his followers into a Community of Fate by literally burning their boats where they landed on the coast to prevent any thought of escape home at this early stage. Thus the Spaniards were inescapably linked to each other's fate but had a compelling reason to ensure collective survival. As Cortes recruited anti-Aztec Indian allies to attack Moctezuma's Aztec empire it became clear to the Aztecs that Cortes was not merely an outsider intent on harm but their god Quetzalcoatl who had been predicted by Aztec prophesy as the white skinned bearded god who would return to reclaim his kingdom. In effect, the Aztecs were partly undone by their own belief structure because it reduced them to a Fatalist Community.

There are many contemporary equivalents to this narrative of fate. For example, Anne Glover, a local community leader in Braunstone, Leicester, is credited with turning her own fatalist community into a community of fate when she mobilized her local neighbours to unite against the gang of youths engaging in anti-social behaviour and ruling their council estate through fear. Such fear effectively demobilized the community, turning it into a disparate group of isolated individuals all complaining about the gang problem but feeling unable to do anything about it. When Glover persuaded a large group to go out – as a group – and confront the gang, the gang moved on and were eventually removed from the estate. As Glover insisted, 'It never ceases to amaze me how a minority can control an area where a majority of people live... all because of the fear factor. If you stick together on an issue they can't intimidate you." (BBC One, 2008). There is more to this than simply being brave enough to do something and willing to take the risk that it will not be easy; it is about recognizing the importance of building social capital to develop an identity that generates a Community of Fate – the identity must be collective, but the responsibility must be individually shared for Wicked Problems to be addressed.

E3: Empathy not Egotism

Finally, the last Egalitarian technique lies in the ability to step into another's shoes, to generate an empathy that facilitates understanding of the other and is a pre-requisite for addressing Wicked Problems, but how might we acquire it? Jones' (2008) answer is to become an anthropologist of your own organization, to walk a mile in the shoes of those of the shop floor, to become a mystery customer of your own bank or hospital, to experience the life of those whom you want to engage in the collective effort because if you cannot understand how they see the problem how can you mobilize them? This is radically different from our usual methods for acquiring knowledge about how our organizations work because we know that what people say in focus groups or in surveys does not represent how they normally see the world – they are artificial environments and provide artificial data. Many CEOs and corporate leaders already do this – but many more do not, and then find themselves surprised when the bottom of the hierarchy doesn't respond in the way

that the focus group or latest staff survey had predicted. For example, several Chief Constables in the UK ensure that they and their senior officers go out on patrol once a month, not to check up on more junior officers but to remind themselves of the kind of problems they face on a daily basis. As Sean Price, Chief Constable of Ceveland Police noted, "Being a Chief Constable is a bit like being a member of the royal family – You end up thinking the whole world smells of fresh paint," (The Times Online, 2008). Equally revealing is the Association of Chief Police Officer's (ACPO) response to the request for information from *Jane's Police Review* (2008) as to how often Chief Constables around the country went on the beat themselves? "Judging (chief) police officers by when they last made an arrest (said an ACPO spokesperson) is a poor indicator of performance." (This is not just a demonstration of the poverty of assumption that being on the beat means being measured by the number of arrests – a targeting culture that behoves a Tame response to often Wicked Problems. Equally important, it assumes that Chief Constables should be distant from the reality of policing on the beat and should instead spend their time designing yet more beautifully crafted strategies and targets in the sure and certain knowledge that it will be of marginal significant at best.

Conclusion

I began this chapter by suggesting that the high proportion of organizational change failures might be the result of assuming that all kinds of change were susceptible to the same kind of change programme when, in fact, change is often radically different. A typology to facilitate this understanding was then outlined that differentiated between Tame, Wicked and Critical Problems and linked them to Management, Leadership and Crises. I suggested that while Tame Problems could be solved by adopting the Standard Operating Procedures that have worked before for managers, Critical and Wicked Problems embodies radically different change methodologies. Critical Problems were the responsibility of Commanders who had to act decisively to provide the answer to the problem, but Wicked Problems were often either novel or intransigent and were the providence of Leadership.

This then took us in the cultural theory of Mary Douglas whose Grid/Group dimensions allow us to plot four different cultures: Hierarchist, Egalitarian, Individualist and Fatalist. These cultures tend to be internally consistent and self-supporting such that different groups understood the world differently and generated different responses to the same apparent problem. However, these Elegant modes of understanding, while often satisfactory for addressing the Tame or Critical Problems that cultures face, were unable to address the complexities of Wicked Problems. For Wicked Problems the role of leaders was to acknowledge that they did not have the answer to the Wicked Problem and to engage the community to address the problem. That meant adopting the role of the *bricoleur*, the makeshift craftworker who eschews the blank paper beloved of architects starting *de novo*, and made do with whatever was to hand, stitching together a pragmatic – nay Clumsy – solution using all three Elegant modes of understanding.

Such a path requires the wisdom that Aristotle called *phronesis* which allowed leaders to use their experience to recognize that each situation was unique and thus not susceptible to expert resolution but sufficiently familiar for the *bricoleur* to deploy an array of techniques that might help reframe the problem and galvanize the collective to action. In other words, it requires a form of action that focuses directly on fixing *the problem* itself, not a form of re-education or reskilling that fixes *the people*. For Aristotle this kind of wisdom – the ability to see the good and realize it in each specific situation – was not a set of universal rules to be learned or a pocket guide to be drawn upon for the correct solution but something only achieved through experience and reflection. Partly this was because *phronesis* relates to the skill of what we now call 'apperception', that is, the ability to relate new experiences to previous experiences, in other words to recognize patterns in situations that facilitate understanding and resolution. By definition, this is something that we can only acquire through experience but experience alone is insufficient to ensure apperception because some level of reflective learning needs to have occurred if patterns are to be understood (Schon, 1987). In effect, apperception is the ability to frame or reframe situations (Fairhurst, 2005) so that what appeared to be one thing might actually be another or, more often, what appeared to be 'senseless' could be made sense of, often retrospectively (Weick, 1995). Thus only by addressing Wicked Problems – by doing leadership - can we achieve the wisdom of leaders (Grint, 2007).

The techniques relating to Wicked Problems tend to emerge from one of the three Elegant frames, thus from the Hierarchists we considered the role of asking

questions not providing answers, the issue of relationships over structures, and of reflecting on rather than reacting to Wicked situations. From the Individualist we considered the importance of Positive Deviance not Negative Acquiescence, the encouragement of Constructive Dissent over Destructive Consent and the role of Negative Capability. Finally, from the Egalitarians we considered the use of collective intelligence not individual genius, the building of a community of fate not allowing a fatalist community to prevail, and to adopt an empathetic rather than an egotistic approach. I will finish with this quote from Laurence J. Peter: 'Some problems are so complex that you have to be highly intelligent and well informed just to be undecided about them.'

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1 In a letter to George and Thomas Keats on 22/12/1817 John Keats wrote

> 'I had not a dispute but a disquisition with Dilke, on various subjects; several things dovetailed in my mind, & at once it struck me, what quality went to form a Man of Achievement especially in literature & which Shakespeare possessed so enormously - I mean Negative Capability, that is when man is capable of being in uncertainties, Mysteries, doubts without any irritable reaching after fact & reason.'