



*NEW THINKING  
FOR THE NEW  
MILLENNIUM*

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FROM THE BEST-SELLING AUTHOR  
OF *SIX THINKING HATS*

# Summary

At this point it may be useful to bring together the main threads of what has been considered so far. Most of the points will have become obvious, perhaps too obvious, to readers.

## Traditional Thinking

Over the last two and a half thousand years we have developed, refined and used our classical thinking methods. These are marvellous, wonderful, excellent, effective and powerful. It is little wonder that we are tragically complacent about these methods. At the same time that they are so wonderful they are also inadequate. A carpenter may have the most wonderful saw in the world but without some method of sticking pieces of wood together the carpenter would only be doing half the job.

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Our traditional methods are concerned with 'what-is' thinking. What is this thing? What is this situation? What is the truth? This identification process allows us to use our experience and learning, and that of others, to apply standard solutions to standard situations.

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We have not been concerned with, nor have we put sufficient emphasis on, the other aspect of thinking, which is the 'what-can-be' type of thinking. This is the thinking that is concerned

with creativity, new ideas, new approaches and 'designing' the way forward. Excellent search methods will allow you to find a particular book in a library but such methods do not help you to write a new book. Perhaps we have been content to leave that side of thinking to individual talent, on the basis that such talent has indeed provided new ideas and inventions.

## **Analysis**

At university level this is almost the key theme of intellectual effort: how can we analyse complex situations into their component parts so that we can understand the situation and perhaps apply a poultice of standard remedies.

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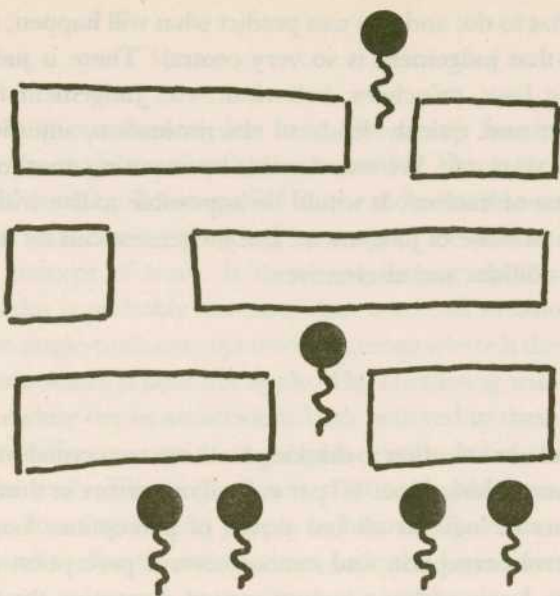
We can analyse problems and find the cause. We then seek to remove this cause. Sometimes we are successful, but when we cannot remove the cause we are paralysed, because such problems need the ability to design a way forward which leaves the cause in place.

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We are excellent at analysis but not nearly so good at design, because design needs a very different sort of thinking. How much time is spent at universities on 'design' as compared to 'analysis'?

## **Judgement**

The purpose of analysis is to break things down so that we can judge and identify them. A doctor's skill depends on his or her ability to diagnose illness. This is a pure judgement process. Once the condition has been identified then the treatment is more or less standard. Once you know what you are dealing with then you



## Achievement

There are barriers and ways through the barriers. Achievement means getting there. But you have to try – and to think constructively.

know what to do; and you can predict what will happen. Is it any surprise that judgement is so very central? There is judgement regarding laws, principles, behaviour, etc. Judgement feeds on difference and quickly leads to discrimination, injustice, persecution, wars, etc. We counter this by imposing another judgement: that of 'racism'. It would be impossible to live without the frequent exercise of judgement. But judgement can be tempered with possibilities and alternatives.

## **Logic**

Almost all our attention to thinking has been concerned with logic. This is astonishing, since 90 per cent of our errors in thinking are not errors of logic at all but errors of perception. Logic does not control perception and cannot control perception (Godel's theorem). Logic within a system cannot determine the starting-points of the system. This hyper-emphasis on logic has had two disastrous effects. The first is that we have paid insufficient attention to 'perception' and the second is that we have the highly dangerous 'feeling' of being right – when we have selected the perceptions.

## **Being Right**

If you feel you are 'right' then you may want to fight to the death to defend that feeling. Feeling right is an emotion, not just a logical state. We are taught that one of the highest forms of thinking is to defend a position logically. This is utter rubbish and dangerous rubbish too. If you select your information, choose your values, and restrict your perceptions, you can defend virtually any point of view. Much of the strife in the last millennium has arisen precisely from this 'feeling' of being right. Arrogance of the worst sort, both intellectual and behavioural, arises from this feeling of being right.

## Truth

The driver of our thinking has been 'the search for the truth'. How can you do better than have 'the truth'? This is the essence of 'what-is' thinking. Leaving aside for the moment the consequent neglect of 'what-can-be' thinking, we can still see difficulties with the very concept of truth. Is there only one truth? In certain situations this is probably the case – but not in all situations. We extend the single-truth concept from occasions where it does apply to occasions where it does not apply. The conflicting witnesses of the black/white car in an accident both believed in their 'truth'. There are different sorts of truth: game truth, belief truth and experience truth. The single 'banner' of truth has been a very dangerous concept, driving people to heroic behaviour, as with martyrs, and to disastrous behaviour, as in the Inquisition.

## Complacency

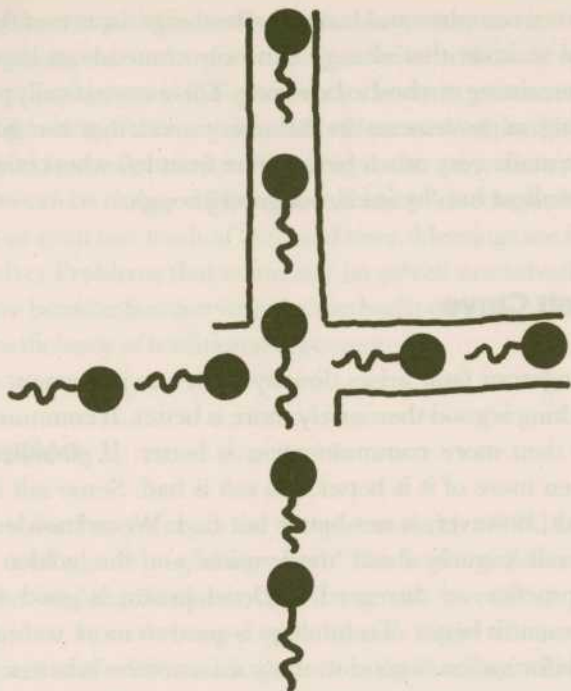
We have been far too smug and self-satisfied about our thinking habits. They have created a universe of discourse and consideration that cannot conceive of any other. If you live in France and speak French perfectly, how can you ever be aware of the deficiencies of that language? How can you conceive that there might be other languages? How can you accept that other languages may have advantages for certain purposes? How can anyone explain to you, in French, that French is not perfect? Our thinking habits see their own perfection in a limited universe of application and cannot consider the inadequacies of that universe. If you are content to play philosophical word games you cannot conceive that there is a huge world of 'practical thinking' which is totally different.

## **Problem-Solving**

Arising directly from our complacency about our thinking habits and our lifestyle is our almost exclusive focus on 'problems'. Indeed, in much psychology any sort of thinking is called 'problem-solving'. Improvement means putting right faults and defects. In Japan, in contrast, improvement means making better what is already perfect. A problem is something that is 'wrong' and so we have to put it right. Business managers are obsessed with problem-solving, perhaps because they come across so many problems in their daily life. In practice, problem-solving is only a small part of thinking. Problems do have to be solved just as headaches do have to be treated. But you do not grow on a diet of aspirin salads. The creative, constructive and design aspects of thinking are even more important, but are largely neglected in favour of problem-solving. We do not even start to look at things unless they are problems. The result is that civilization is burdened with concepts and institutions which are marvellously inefficient but not yet problematic enough to attract 'thinking attention'.

## **Not Good Enough**

Our obsession with faults and problems means that you have to prove something to be incorrect or 'bad' for it to be changed. There is probably no subject in the crowded educational curriculum which is bad, harmful or not worth teaching. Everything there has a value. It is only when we look at the vastly more important subjects which are excluded because of the full curriculum that we can see that the 'good' is not good enough. Subjects like 'thinking', 'operacy' and 'value creation in society' are far more important than the majority of subjects now on the curriculum. In exactly the same way, our traditional thinking habits are not 'bad': they are excellent, but not good enough, in the sense that



### The Next Step

The direction in which a tole is swimming will determine the direction of the 'next step'. Once a tole enters a channel the next step is even more determined. Freedom to choose is only there when we choose to exercise it. Mostly our next steps are determined by where we are.

they are not complete and leave out the design aspects of thinking. We tend to insist that change can only come about if you first prove the existing method to be wrong. This automatically prevents us making improvements in the many areas that are good but could be made very much better. The front left wheel of a motor car is excellent but, by itself, not good enough.

## **The Salt Curve**

This dangerous fault arises directly from our judgement system. If something is good then surely more is better. If communication is good then more communication is better. If globalization is good then more of it is better. No salt is bad. Some salt is good. More salt, however, is not better but bad. We acknowledge this and we talk vaguely about 'moderation' and the 'golden mean', but in practice we disregard it. Development is good so more development is better. Technology is good so more technology is better. Information is good so more information is better. A PhD scholar wanting to access references to my work on the Internet would need to spend thirty working years, spending just one minute on each reference. Fast planes are good, so faster planes are better. Yet the supersonic Concorde has not had successors and is not a commercial success.

## **Argument**

This arises directly from judgement, identification, truth and the 'what-is' system. One party insists that the situation is A and the other party insists either that it is 'not A' or that it is B. The argument goes back and forth as in an adversarial court of law. The prosecution insists on the guilt of the defendant and the defence insists on his innocence. This is meant to explore the subject – but it does not, for obvious reasons. If the defence lawyer

thinks of a point which actually favours the prosecution, that point is never going to be advanced. The primitive and crude nature of the argument system is shown up very clearly in contrast with the parallel thinking of the very simple Six Hats method. In this method every thinker at any moment is looking in the same direction. The direction can be changed (hence the six hats). Meetings take only a quarter or even one tenth of the usual time. Meetings are far more productive. Problems that could not be solved are solved. Those who have become familiar with the method look back with wonder at the inefficiency of traditional argument.

## Perception

There used to be a saying in the computer world of GIGO: which meant, 'garbage in – garbage out'. The logic of the computer would be working flawlessly, but if you put in rubbish you got rubbish out. It is the same with human logic. If the starting perceptions are faulty or inadequate then flawless logic will produce absurd answers. But, much more dangerously, we will believe those answers to be valid. We have neglected the vitally important area of perception, because logicians only worked with fixed starting concepts. We have neglected perception because we did not know how to deal with it. Our traditional habits of thinking are completely useless when it comes to perception. Perception works in a self-organizing information system, logic works in an externally organized system: two completely different information universes. All my work started from consideration of self-organizing information systems like the nerve networks in the brain. Logic works with truth and deduction. Perception works with possibilities, alternatives and provocations. Applying logic to perception is like trying to sculpt with water (not ice). There is nothing to get hold of – yet it is there.

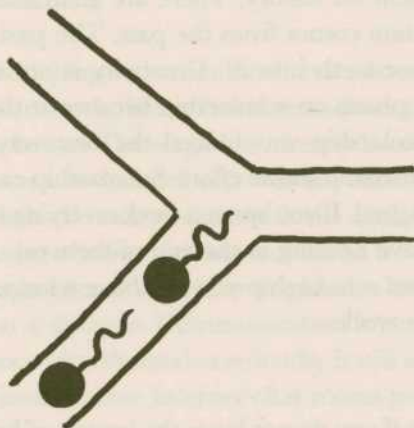
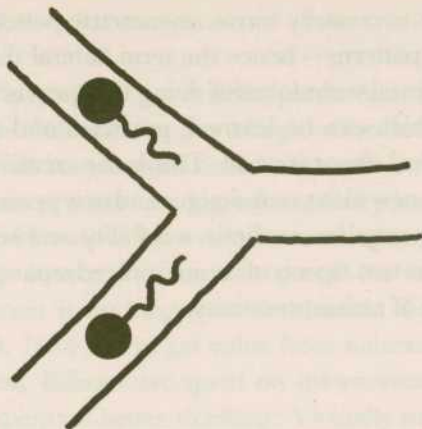
Our approach to perception has to be very different. One approach is to design simple attention-directing tools. These are incredibly simple but very powerful. Thirty youngsters liked the idea of being paid to go to school. They were asked to use the PMI attention-directing tool, and as a result of that simple perceptual scan twenty-nine out of the thirty completely changed their minds. There was no argument or discussion: just a broadening of perception. The same tools taught to totally illiterate workers at the bottom of a platinum mine in South Africa reduced disputes from two hundred and ten a month to just four. Such methods are so simple and there is so much experience with them across cultures, ages and abilities, that any education system that does not put them into every school is failing in its duty.

## **Possibility**

This is a key part of thinking. It is the very basis of science, along with the hypothesis. Without the hypothesis there is no science. It is the very basis of technology with vision. Unless we can imagine something we cannot undertake to achieve it. Our traditional thinking does acknowledge the importance of hypotheses but does very little about them. This is because logic has to move from one certainty to another. Possibilities are the very opposite of certainty. Furthermore possibilities cannot be produced by analysis – they require a creative and design effort.

## **Creativity**

Our traditional thinking habits ignore creativity completely. Creativity is regarded as a mystical talent that some people have and that produces creative results. It is considered beyond analysis and incapable of being harnessed. This is complete nonsense. Creativity arises from the perfectly logical behaviour in a self-organizing



### **Choice of Direction**

Too often we feel we have to choose either/or. Sometimes this is the case (as in going for a walk). But we can also choose to go in different directions at the same time (as in investing).

system, which necessarily forms asymmetric patterns. There is a need to cross patterns – hence the term ‘lateral thinking’. There are various formal techniques of doing this (provocation, random entry, etc.) which can be learned, practised and used. There is nothing mystical about it at all. This is the creativity involved in new concepts, new ideas, new designs and new perceptions. Artistic creativity also requires aesthetic sensibility and some emotional resonance. The two aspects of creativity need separating, otherwise we only think of artistic creativity.

## History

We are obsessed with history and the bulk of intellectual effort at universities is spent on history. There are good reasons for this. All our information comes from the past. The past is there and you can ‘get your teeth into it’. Creativity is not essential. We place a huge emphasis on scholarship because at the time of the Renaissance scholarship was indeed the best way to get new knowledge. Scholarship shows effort. Scholarship can be assessed and, almost, weighed. If you spent a week on trying to have a new idea you may have nothing at the end of the week. If you spend a week on diligent scholarship you will have a large pile of notes at the end of the week.

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We are told that if you do not learn the lessons of history you are doomed to repeat them. It is also true that if you do learn the lessons of history you are doomed to be trapped by them!

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There is nothing wrong with history except the huge overemphasis on history. If we had spent as much time on ‘design’ as we spend on history, the world would be a very different place. Water is essential for life – but you can also drown in water.

## **Information**

A large pile of bricks does not build a house. A sack of flour does not bake a cake. Information has a high value. Information can provide you with answers you could not work out for yourself. Information can provide the ingredients for your new design. Information on its own will not do all your thinking for you. The information age is over. We can now get all the information we want. Information is no longer the bottleneck. Thinking is the new bottleneck. How do we get value from information? This is a design process. Billions are spent on information technology. How much is spent on better thinking? Virtually nothing.

## **Communication**

Isolation is a bad thing so communication is a good thing. So more communication must be better. So more and more communication must be even better. The stage has already been reached where some people are so overburdened with communication that they cannot do much else except cope with the communication. The telephone was an obvious blessing, but it also meant that you did not have to make friends with your neighbours because you could have friends at a distance. Communication is not a substitute for thinking. A poor idea shouted very loudly is still a poor idea. You only have to look at some Internet chat rooms to appreciate this.

## **Technology**

There is a hidden hope that somehow technology will solve problems. This is partly true. Sophisticated and powerful weapons may make all wars obsolete. Medical advances may make us live longer and healthier lives. Computers can run, control and even design systems for us. Computer matching can find us mates. The isolation

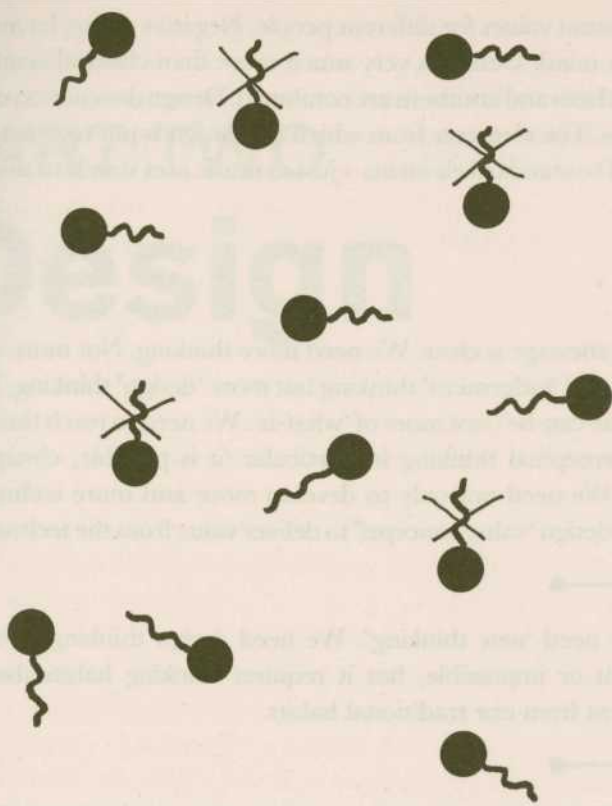
of certain 'bonding' chemicals may lock us into a lifetime mutual obsession with a mate – just as happens with the prairie vole. On the whole, however, technology is already far in advance of the 'value concepts' we have designed. Technology will support our value concepts – but it will not provide value. The emphasis now needs to be on the 'design' of value concept. Technology companies are completely unaware of this.

## **Design**

Design is almost the opposite of judgement. Judgement is attending to what is there. Design is seeking to bring about something that is not yet there. At different points, judgement and analysis do come into the design process, but the thrust and framework of design thinking is very different. You can analyse the factors needed to invent a new game – but you still have to design the game. The purpose of design is to bring together different things in order to deliver value. If there is no value there is no design. If the only value is the self-indulgence of the designer, then there is no design either. Design is the opposite of complacency and being too happy with things the way they are. Creativity feeds into design. A design may be a new way of putting together well-known things. A design may also involve new concepts. Design can be applied to everything we do, think or feel. We may seek to design new types of capital; we may seek to design a better form of democracy; we may seek to redesign the legal system. Anything can be designed or redesigned. Design is very much more than just problem-solving.

## **Value**

Value is to design as truth is to logic. Logic seeks to proceed from truth to truth. Design seeks to proceed from value to value. The many aspects of value will be described in later pages. There may



### **Remove the Bad**

We believe that if we identify the 'bad' and remove it then all will be well. So we eliminate the toles that are swimming in a 'bad' direction. This does not do very much to get the other toles swimming in the right direction.

be different values for different people. Negative values have to be kept in mind. Design is very much more than classical synthesis, where thesis and antithesis are combined. Design does not exist until it exists. The elements from which the design is put together may indeed be standard elements – just as music uses standard notes.

## So ...

So the message is clear. We need more thinking. Not more of the traditional 'judgement' thinking but more 'design' thinking. More of 'what-can-be', not more of 'what-is'. We need to teach thinking, and perceptual thinking in particular (it is possible, cheap and easy). We need not only to develop more and more technology but to design 'value concepts' to deliver value from the technology.

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So we need 'new thinking'. We need design thinking. It is not difficult or impossible, but it requires thinking habits that are different from our traditional habits.

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Complacency is no longer an option. Too many change factors have been set in motion. They all have their own momentum. Sitting still does not mean the world around will also sit still. Keeping up is a choice. Moving ahead is an even better choice.

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Some of the characteristics of the new thinking are explored in the following pages.