Introduction

For western cultures, the term "positive" derives from a Latin word signifying "settled by arbitrary agreement" or imposed, rather than a natural expression. The term "negative" derives from a Latin word signifying negation or denial. The formal mathematical and scientific senses of both terms originated in the 18th century. Philosophical use of both "positivism" and "negativism" originated in the 19th centuries. It was only at the beginning of the 20th century that "positive" was used in the psychological sense of "concentrating on what is constructive and good" -- as with the corresponding sense of "negative". The hard sciences have frequently deplored the tendency of other disciplines to mistakenly endeavour to mimic their formalism in the psycho-social domain.

The relation between such moral and ethical implications can therefore be understood as relying, questionably, for some of their significance on the binary formalism introduced by science, notably though the work of mathematician Gottfried Leibniz. His work was however strongly influenced by the ancient notation used by the Chinese for the 64 hexagrams of the I Ching, which he claimed demonstrated the universality of the binary system. The I Ching however encodes a philosophy that is at the heart of Chinese cultural beliefs and based on the dynamic balance of opposites such as positive and negative. It provides a richer articulation between opposites by exploring 64 possible combinations with which moral and ethical connotations are associated -- thus extending connotations of "positive" and "negative" (cf Discovering richer patterns of comprehension to reframe polarization, 1998).

Exhortations and injunctions to "be positive" are a common feature of some religious groups, in the development of selling techniques, in self-help therapies, in work group development, and in living with potentially fatal illnesses. These are seen as a means of avoiding or defeating negativity in those different contexts [more]. Misguided justifications of negativity are a particular concern [more | more]. Recommendations may even be made to avoid negative people, especially those framed as "losers" -- to reduce the possibility of being entwined by their mindset.

Whilst there are numerous web references in support of being positive or avoiding negativity, there are very few resources that challenge the uncritical judgemental attitudes which evoke such injunctions. This is curious because the consequences of "being judgemental" have
long been a concern in many of the above contexts. The implication is then that "being positive" is an absolute good, and "being negative" is an absolute negative -- to the point of being recognized as sinful by some religious groups.

The issue is explored here from a variety of perspectives. It is effectively the introduction to an associated paper (Cardiod Attractor Fundamental to Sustainability: 8 transactional games forming the heart of sustainable relationship, 2005) that highlights the existence of a set of games, rather than a single game, that potentially are all aspects of a sustainable cyclic system that merits further attention.

**Interpersonal games**

Transactional analysis was founded on the recognition by psychiatrist Eric Berne (Games People Play: the psychology of human relationships, 1964) that individuals frequently engage in psychological games with one another -- psychological theatricals that are played over and over again. For Berne:

A game is an ongoing series of complementary ultraer transactions progressing to a well-defined, predictable outcome. Descriptively, it is a recurring set of transactions... with a concealed motivation... or gimmick.

A game can then be understood as a series of interactions (words, body language, facial expressions, etc.) between two or more people that follow a predictable pattern. The interactions ultimately progress to an outcome in which one individual obtains a "payoff" or "goal." In most cases, the participants in the games are unaware that they are "playing." One of the players, the "loser" tends to end up feeling used and hopeless.

The question explored here is whether the exhortation to "Be Positive", addressed by one person to another, constitutes the first move in such a game -- in which the enjoiner seeks for themselves the "positive" outcome of being the "winner" under the guise of promising positive outcome. It is also possible that a second game, in Berne's terms, might be associated with a reversal of the earlier title of this paper to read: Games People Play: Being Negative and Avoiding the Positive. This would indeed be rated as a more appropriate and significant challenge by some.

**Denial of the negative**

There is an increasing social orthodoxy of positive thinking that Karen Armstrong (Look on the dark side of life, Guardian, 21 February 2004), as author of Buddha (2001), sees as a route to spiritual and political disaster. Recognizing the Buddha's isolation from the realities of life in his childhood palace, as an extreme example of denial by his father, she argues that:

It is increasingly unacceptable to voice legitimate distress. If you lose your job, become chronically ill, or fall prey to loneliness or depression, you are likely to be told -- often abrasively -- to look on the bright side. With unseemly haste, people rush to put an optimistic gloss on a disaster or to suggest a solution that is patently unworkable. We seem to be cultivating an intolerance of pain -- even our own....In our global world we can no longer afford to edit out the uncomfortable spectacle of human misery....The pain that we ignored in some parts has hardened to murderous rage.

Elsewhere (Spontaneous Initiation of Armageddon: a heartfelt response to systemic negligence, 2004) it is argued that within psychosocial systems as a whole -- which are the preoccupation of future global governance -- certain functions are inadequately expressed to a degree that is forcing their spontaneous and dangerous emergence under certain circumstances.

Another example of an exploration of the moves in a transactional "game" of enjoining others to be positive is that of Robert Treborlang (The Totally Positive Mate, 2002). With respect to Australian society he argues:

In this country, a nation not given to great political credos, the unanswerable damning accusation from people invariably is: "You're being negative." Being accused of negativity is like being denounced for selling your soul to the devil in the Middle Ages. The fires of hell are sure to get you if society doesn't grill you first. On the other hand, just like being on the side of the angels, the highest social accolade anyone can receive is to be considered "positive".

Treborlang asserts that when people accuse others of being negative, it should be understood as a hint to "back off from whatever it is they don't want to hear". The qualification "negative" is a designation applied when their worldview is threatened, whereas "positive" is usually applied to themselves to "disguise the fantasy they have of a given situation". The accusation of "being negative" effectively indicates "do not bring facts into my preferred understanding of reality". The injunction "be positive" is an appeal to subscribe to a particular worldview -- or be considered highly negative and retrograde for failing to do so.

The extent to which an exclusive focus on the positive should be considered irresponsible has been explored elsewhere (The Quest for the Socio-Economics of Non-Action, 1993) as a commentary on the arguments of Willis Harman (Rethinking the central institutions of modern society: science and business In: Futures, 25, 10, December 1993).

<table>
<thead>
<tr>
<th>Significance of being positive?</th>
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<tr>
<td>Fundamentalists of the distant future may have the opportunity to create a new negative-free universe</td>
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<tr>
<td>A 50,000 word book was written in 1939 without using the letter &quot;e&quot; in the text</td>
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<tr>
<td>Are these suggestive of the significance of being positive and avoiding negativity?</td>
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Unchallenged dangers of positive thinking

The advocacy of positive thinking was a notable feature in early twentieth century America. It was articulated and promoted through a wide array of ministers and spiritual thinkers, who used the Bible and personal anecdote to extol its creative power. One of the progenitors was Norman Vincent Peale (The Power of Positive Thinking, 1952). Its soaring optimism has been well formulated by Neville Goddard: "It is not what you want that you attract; you attract what you believe to be true."

Social philosopher Geoffrey Hill states:

Adolph Hitler: . . . above all persons, believed in the power of positive thinking (with himself of course at the helm of the world's selfish, destructive destiny). He above all people believed in the power of the selfish mind (tragically at the expense of millions of others). He above all people refused to allow negative thoughts to cramp his style. . . .

Members of the Bush administration have repeatedly chided journalists for failing to focus on the positive aspects of America's role in Iraq. The consequence of such positive thinking have been notably highlighted by journalists and commentators. As a physician concerned with cancer, Jimmie C. Holland (The Human Side of Cancer, 2001) writes with concern on The Tyranny of Positive Thinking and the unreasonable expectations it places on people struggling with the disease -- to the point of believing they are dying because they are not being positive enough.

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<th>Iraq disaster -- a direct consequence of positive thinking by its architects?</th>
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<td>Sidney Blumenthal (The hollow world of George Bush: the power of positive thinking is the president's shield from reality, The Guardian, 23 September 2004):</td>
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| The news is grim, but the president is "optimistic". The intelligence is sobering, but he tosses aside "pessimistic predictions". His opponent says he has "no credibility", but the president replies that it is his rival who is "twisting in the wind".... Bush's campaign depends on the containment of any contrary perception of reality. He must evade, deny and suppress it. His true opponent is not his Democratic foe -- called unpatriotic and the candidate of al-Qaida by the vice-president -- but events. Bush's latest vision is his shield against them. He invokes the power of positive thinking, as taught by Emile Coue, guru of autosuggestion in the giddy 1920s, who urged mental improvement through constant repetition: "Every day in every way I am getting better and better."

It was during this era of illusion that T S Eliot wrote The Hollow Men:  

*Between the idea  
And the reality,  
Between the motion  
And the act  
Falls the Shadow.  
***

Oliver Burkeman (Rumsfeld's Progress, The Guardian, 10 November 2006):

Rumsfeld had become one of the chief engines of the notion that insisting on a particular version of reality in Iraq would somehow cause that version to be manifested. It was the power of positive thinking, as applied to geopolitics, and by 2005 it had gone too far for a slew of retired generals, who joined the call for Rumsfeld to resign.

Vulnerability to disaster

From this perspective the question is how to warn of impending disaster without being labelled as "negative" and enjoined to minimize the danger and "be positive". Three avoidable disasters help to clarify the challenge:

- **Challenger disaster**: NASA suffered a highly publicized disaster on 28 January 1986, when the space shuttle Challenger exploded, killing all seven astronauts on board. The extensive analysis of the problem thereafter determined that the engineers had endeavoured to report the nature of the problem (inadequate sealing rings, called O-rings) to the NASA council responsible. They had however been informed that negative feedback on such matters was both unwelcome and inappropriate. A positive approach was required by NASA authorities to ensure the planned launch and the desirable public relations coverage. Some of the engineers were much sought out thereafter as speakers in management schools. [more]

- **Avianca disaster**: In 1990 an Avianca flight was in a holding pattern in the New York area for 77 minutes awaiting clearance to land. Realizing that the aircraft's fuel supply was dangerously low, the pilot informed the control tower that it was nearly exhausted: "I think we need priority; we're running out of fuel." Hearing the pilot's calm positive voice, the controllers did not react and authorize an immediate landing. Fatally, the pilot had not used the prescribed "negative" terms "emergency" or "minimum fuel". Minutes later the aircraft crashed. An investigation concluded that the pilot neglected to use the prescribed terms, and the controllers had also failed to ask how much fuel remained, or to request clarification.

- **Baku-Ceyhan pipeline**: The 1,000 mile BTC pipeline constructed by a consortium led by BP used an unproven coating for 160,000 joints -- that cracks when cold with the possibility of major environmental disaster from oil spills. It is reported that BP had been informed of this problem by a consultant in November 2002, but failed to pass on the information to the international funding bodies -- sacking the consultant in January 2003. The joints cracked in November 2003. [more | more]

- **Tsunami disaster**: A more dramatic example is that of the head of the Thai meteorological office who was forced in 1998 to retire
under a shadow for having warned that the coast was dangerously vulnerable to the effects of tsunami. He was accused of scaremongering and jeopardising the tourist industry around the island of Phuket. After tens of thousands of deaths in the tsunami of 2004, he was reinstated in 2005 -- as minister in charge of the Thai disaster warning office.

The challenge of repressing the negative is only too evident in controversies with regard to "whistleblowing". Groups and institutions attach high value to repressing or concealing negative feedback that may call into question their integrity and self esteem. John Ralston Saul (The Unconscious Civilization, 1995) argues the point with a dramatic example:

Criticism is perhaps the citizen's primary weapon in the exercise of her legitimacy. That is why, in this corporatist society, conformism, loyalty and silence are so admired and rewarded; why criticism is so punished or marginalized. In one eloquent example which has recently come to light, the executives of a major American tobacco company debated among themselves at great length, in the 1960s, whether they should inform the U.S. Surgeon General of the results of their own corporate research, which confirmed the health hazards of smoking. They decided, eventually, to say nothing and to stop work on a safer cigarette. After all, to develop a safer cigarette would compromise their silence by suggesting the need for one. Instead, they initiated a legal and public relations strategy of admitting nothing.

Efforts may be made to bring the most extreme sanctions to bear upon whistleblowers (cf the Katherine Gun case) such that the EU has had to formulate a so-called "whistleblower's charter" (cf Robert Taylor. Ethical Framework Helps Promote Good Governance: Whistleblowing, Financial Times, 10/12/1999) [more | more].

Clearly the world would never have been exposed to the scandal of Abu Ghraib had it not been for whistleblowers. Those with secrets to hide would consider it "positive" that exposure to such "negativity" should be avoided. Those committed to "being positive" might well prefer such information to be repressed as relatively insignificant in comparison with the "positive" initiatives they purportedly made possible. Similar dynamics are evident in relation to AIDS (notably in Africa), global warming, and resource depletion for example.

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<th>Exemplar of &quot;being positive&quot;: Marie Antoinette?</th>
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<tr>
<td>&quot;If they have no bread, then let them eat cake!&quot;</td>
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<tr>
<td>[NB: Although the phrase is widely-quoted, there is no evidence that it originated with Marie Antoinette]</td>
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**Concrete situations**

More immediate examples of the undesirability of a purely "positive" approach are:

- **Physician / Surgeon**: It is clearly not beneficial for a physician to focus solely on that which is healthy in the patient, avoiding any reference to that which is less healthy. If a patient has broken one leg, focusing in a blinkered manner on the health of the other is no basis for any remedial measures to the other. There are similar concerns if the positive framing by the surgeon corresponds to the adage: "If they have no bread, then let them eat cake!" or what might be constructed in its place.

- **Plumber**: If plumbing in a house is leaking at a particular place, focusing on the many parts of the pipework that are not leaking does not lead to urgent repairs on the part that is leaking.

- **Firefighter**: In the event of the fire, it is useful to have firemen who focus on the challenge of extinguishing the fire, rather than concentrating their attention solely on what has not yet been burnt -- or what might be constructed in its place.

Corresponding to the adage: "If it ain't broke, don't try and fix it" is the adage: "Being able to understand that it is broke, is the first step towards being able to fix it" -- a vital first step for members of Alcoholic Anonymous.

A relevant attitude in the case of software developers has been named as "Positive Negativity", especially given that the pleasure in the task comes from satisfying a creative urge, which is positive. But the practice itself often has to focus on the negative:

This is an attitude of mind that sees failure as success. You are a problem solver, a fixer. Your ability to look on the black side to envisage problems and exceptions and difficulties and objections is the key to your strength: your ability to prevent and minimize the impact of what you foresee. [more]

However the point has been made by Hegel (Science of Logic) that: Evil consists in being self-poised in opposition to the good; it is a positive negativity.

**Testing the boundaries of "being positive"**

[added in November 2006]

The following help to understand the degree of commitment to "positive thinking", and its possible consequences:

1. When short of funds, should you (or your group) invest all you have in gambling or lottery tickets? If not, why not? Is gambling not an expression of positive thinking?
2. Is experiencing pain a failure of positive thinking? As a positive thinker, when and why would you seek therapeutic assistance?
3. If you are "positive", what do you do with your "negativity"? Or do you consider that one can exist without the other -- unlike God who is seemingly obliged to accept the existence of a demonic force?
4. Is the following Bedouin advice an example of failure of positive thinking: Trust in Allah, but tether your camel? Do you lock your car door?
5. Why did the positive thinking of George Bush and Donald Rumsfeld not ensure an unconditional welcome by the Iraqi population - and a quick adoption of western democratic principles?
6. Why does positive thinking engender so much negativity -- as exemplified by George Bush and Donald Rumsfeld in the case of Iraq -- in the interest of promoting democratic values worldwide?
7. If even the expenditure of $400 billion failed to undermine the confidence of George Bush and Donald Rumsfeld in their positive assessment of the Iraq venture, what financial risks do others take in seeking the advice of positive thinkers?
8. Does thinking positively effectively eliminate one's "enemies"? Would you encourage a good friend to walk in an urban no-go area even when the police fear to visit?
9. Would there be any problems left in the world if everyone thought positively? How would they be detected?
10. Why are there not more positive thinkers working in the risky contexts of conflict zones? Or are these to be viewed as positive phenomena rendering any such presence superfluous?
11. If marriage is a mutual celebration of positive thinking, why are so many advocates of positive thinking divorced? Does this indicate that there are many conditions in which being positive is unsustainable?
12. Is positive thinking to be understood as presenting a favourable image -- all "dressed up" instead of the "everyday wear" required by normal circumstances?
13. Does the ability to think positively depend on avoidance of any exposure to information that might render appropriate any other mode of thought? Does this encourage secretiveness to avoid evoking negative responses?
14. Does being positive depend fundamentally for its viability and operational effectiveness on engendering negativity beyond its information catchment area?
15. If any sense of risk is to be understood as a failure of positive thinking, would you act unquestioningly on the advice of a positive thinker? Would you so advise a vulnerable person? A loved one?
16. Is a positive thinker to be expected to act responsibly -- when sensing risk is effectively a failure of positive thinking?
17. Should insurance companies increase the premium of positive thinking vehicle drivers?
18. How is deep commitment to positive thinking to be distinguished in practice from psychopathology or sociopathy given the manner in which it defines itself as beyond criticism?
19. Is positive thinking essentially value neutral in that conditions and actions perceived by others as negative are framed as positively as those so perceived by others?
20. How are the dynamics engendered by positive thinking to be distinguished from those most criticized in the self-referential dynamics of cults, especially around their leaders as exemplars of such thinking?
21. For a positive thinker, under what conditions is doubt admissible given that it exemplifies negativity? Without the capacity to doubt, can a positive thinker engage in dialogue meaningful to others?
22. If arrogance epitomizes a form of positive thinking, why is positive thinking not seen as inherently arrogant?
23. If learning involves the capacity to fail and learn from mistakes, to what extent can a positive thinker learn if the possibility of mistakes is denied or failure is reframed as success?
24. How does a positive thinker distinguish between a "positive attitude" in others and one that imposes a constraint on their positively preferred mode of action?
25. Under what circumstances does positive thinking allow for the possibility of valuable negative or constraining feedback?
26. Is every disagreement a failure of positive thinking on the part of the other? Is there an element of negativity in this assessment?
27. Is strong disagreement between positive thinkers possible? Is that to be understood as positive or negative?
28. If any of the above is to be framed by a positive thinker as "not being positive", is the "not" an example of negativity?

Ludwig Wittgenstein (Philosophical Investigations, 1953) makes a much-cited point that "if a lion could talk, we could not understand him". The explanation is that language forms part of a larger "language-game" outside which that language cannot be understood [more | more | more]. Since humans and lions don't share language-games they cannot share language or understanding. Is being "positive" a form of language-game that precludes any possibility of understanding being "negative" -- whatever the negative "lionish" noise level? The reverse being equally true in such a binary frame.

Beyond the limitations of any such binary frame, as discussed below, the question is how to distinguish:

1. positive forms of "positive thinking"
2. negative forms of "positive thinking"
3. positive forms of "negative thinking"
4. negative forms of "negative thinking"

Within any one of these, the others may each appear to be inappropriate (if they can even be distinguished) -- readily to be condemned as misguided or worse. The challenge is to determine the conditions under which each may be appropriate (and to be preferred) or inappropriate (and to be avoided). The challenge is highlighted by misguided efforts to associate "positive" with "good" and negative with "bad". For a farmer "good weather" may or may not mean "sun" -- as it does for picnickers. The "bad weather" of picnickers may be desperately needed rain for a farmer. On the other hand too much rain may also be "bad". The assessment may depend on the season and crop cycle -- or the part of the world. The same subtlety may be appropriate for "positive" and "negative" as discussed below.
An American general in Baghdad called Iraq a "work of art" in progress yesterday in one of the most extraordinary attempts by the US military leadership to put a positive spin on the worsening violence. (Julian Borger, *Iraq a 'work of art in progress' says US general after 49 die*, The Guardian, 3 November 2006).

In response to criticism regarding progress in Iraq, following a month in which a record number of people died, Major General William Caldwell, the US chief military spokesman, argued that: "Every great work of art goes through messy phases while it is in transition. A lump of clay can become a sculpture. Blobs of paint become paintings which inspire."

**Interrelating positive-negative hybrids**

This table is effectively a complexification of the 4-fold checklist presented earlier, such that each of the items in that checklist is at one of the corners of the table:

1. positive forms of "positive thinking" corresponds to **symbiosis** (corresponding to be the essence of desirable win-win relationships)
2. negative forms of "positive thinking" corresponds to **parasitism** (namely "positive" for one and problematic for the other)
3. positive forms of "negative thinking" corresponds to **predation** (again "positive" for one and problematic for the other)
4. negative forms of "negative thinking" corresponds to **synnecrosis** (namely negative for both in the interaction)

But again it is vital to recognize that all such interactions are part of the systemic balance in sustainable systems as exemplified by ecosystems. Any simplistic effort to "eliminate" the predators in the "predation" process, for example, would naturally eliminate those at the top of the food chain, specifically human beings. [see further discussion in the *accompanying paper*].

**Systems management: value of both positive and negative feedback**

In terms of management cybernetics, a distinction is made between positive and negative feedback. Both are required:

- **Negative feedback**: This is a form of feedback, during which a system responds so as to reverse the direction of change. Since this process tends to keep things constant, it is stabilizing and attempts to maintain homeostasis. When a change of variable occurs within a stable negative feedback control system, the system will attempt to establish equilibrium. [more]

- **Positive feedback**: In this case the response of the system is to change that variable even more in the same direction. This has a de-stabilizing effect that, left unchecked, does not result in homeostasis. In some cases (if not controlled by negative feedback), a positive feedback loop can run out of control, and can result in the collapse of the system.[more]

Positive and negative do not mean or imply desirability in management of complex systems. The negative feedback loop tends to slow down a process, while the positive feedback loop tends to speed it up. Positive feedback is used in certain situations where rapid change is desirable -- negative feedback to regulate that change.

In the case of the NASA and Thai examples, the negative feedback process was fatally inhibited. There may also be cases where positive feedback is inhibited, undermining the capacity to change. Again both forms of feedback are required to manage any change process.

It is in this context that the use of "news management" or "spin" needs to be understood. News can be spun "positively" or "negatively" -- hastening or delaying recognition of a challenge and the adequacy of any response to it. Positive spin will tend to conceal the seriousness of a problem or exaggerate the effectiveness of the response. Negative spin will tend to exaggerate the seriousness of a problem or denigrate the adequacy of the response.

**Dependence of system operation on contrasting modes**

There are interesting examples of the dependence of healthy system functioning on both "positive" and "negative" modes:

- **Electricity**: Most electrical systems require a judicious interaction between positive and negative -- exemplified by the paired wires in the wiring of electrical installations. The technical management of this distinction is fundamental to power generation and the operation of motors. It is fundamental to operation of radio signals of any kind. It is normally ridiculous to consider removing the "negative" wire from such an installation, especially since in the alternating current mode the current cycles between "positive" and "negative" (in contrast to the direct current mode).

- **Circadian rhythms**: Many biological systems are dependent on the night / day cycle. Any tendency to label "day" as "positive" (or "good") and "night" as "negative" (or "bad"), and to maximize one at the expense of the other, tends to have problematic consequences.

- **Weather**: There is a marked tendency to distinguish between "good" weather and "bad" weather. However both forms have their place in ecosystems. Any efforts to maximize good weather and to eliminate bad weather would tend to have problematic consequences.
The case of the electrical convention regarding the "positive" versus the "negative" form of electricity is important in that it illustrates the arbitrary nature of the convention. Whether one is assumed to be positive (and associated with the plus sign) and the other is thereby treated as negative (and associated with the minus sign) is an arbitrary choice, although the convention -- once made -- should be adhered to throughout the framework. Thus in projecting "positive" onto any framework, it may either be associated with a plus sign or a minus sign.

### A Technical Impossibility: Eliminate the Negative?

It is most curious that a world-renowned designer, architect and inventor of many devices, and specialist in systems theory, **R Buckminster Fuller** should espouse the belief that the "negative" could be eliminated. Where does the "negative" get eliminated "to" in any system dependent on recycling or redistribution of stresses?

I resolved never to attack or oppose undesirable socioeconomic phenomena, but instead committed myself to evolving and cultivating tools that would accomplish humanity's incessitious tasks in so much easier, more pleasant, and more efficient ways that, without thinking about it, the undesirable ways would be abandoned by society. (I liked the 1944 popular song *Accentuate the Positive, Eliminate the Negative*. [R Buckminster Fuller, *Critical Path*, 1981]

***

*A-Cent-Tchu-Ate the Positive*

You've got to accentuate the positive

Eliminate the negative

Latch on to the affirmative

Don't mess with Mister In-Between...

[Written by Johnny Mercer and Harold Arlen for the Bing Crosby movie "Here comes the Waves"]

[Bing Crosby variant | Johnny Mercer variant | more]

Is that how the engineers of the *Challenger* space shuttle were encouraged to think in denying that they had a problem? Does "eliminate" then justify "with prejudice" as with Hiroshima and elsewhere? Given Fuller's pioneering focus on the management of resources (*Operating Manual for Spaceship Earth*, 1963/1971), is such thinking a basis for managing the Earth's resources? As a pioneer in the recognition of recycling, Fuller held that wealth can be increased by recycling resources into newer, higher value products whose more technically sophisticated design requires less material. He recognized how important recycling would be as the human race grew and outstripped its resources. How then should "waste" be "eliminated" in order to enhance "wealth"?

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*Selection from many (appreciative) comments on "accentuate the positive":*

*Goal Setting for Kids*, 22 June 2006

Patricia McLinn, *'Accentuate the Positive, Eliminate the Negative'*

Justice Donald B. King, *Accentuate the Positive, Eliminate the Negative*

Morton Kamen, *Accentuate the Positive, Eliminate the Negative*

Bill Andrew, *Spousal Caregiving: Accentuate the Positive!*


***

However one web resource specifically associates the slogan

*Accentuate the Positive, Eliminate the Negative*

with the "Mary Poppins School of Management"


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### Dualistic games

Elsewhere the tendency to use polarities in argumentation was reviewed (*Evoking Authenticity through polyhedral global configuration of local paradoxes*, 2003). The focus was on the process whereby one pole of a polarity was held, as with a quarterstaff, in order to strike the adversary with the other. Examples of this are to be seen in such eternal dialogues as between:

- abstract vs concrete: typical of the clash between different approaches to development
- head vs heart: typical of the clash between academic and "new age" perspectives
- static vs dynamic: typical of the clash between conservative and alternative perspectives
- decentralization vs centralization: typical of the cycle of strategic management fads
- excellence vs commonality: typical of the clash between elitists and popularists

One excellent review of such "pre-logical biases" is supplied by W T Jones (*The Romantic Syndrome: toward a new method in cultural anthropology and the history of ideas*, 1961). He distinguishes between:
• **Order vs disorder**: Namely the range between a preference for fluidity, muddle chaos, etc. and a preference for system, structure, conceptual clarity, etc.
• **Static vs dynamic**: Namely the range between a preference for the changeless, eternal, etc. and a preference for movement, for explanation in genetic and process terms, etc.
• **Continuity vs discreteness**: Namely the range between a preference for wholeness, unity, etc and a preference for discreteness, plurality, diversity, etc.
• **Inner vs outer**: Namely the range between a preference for being able to project oneself into the objects of one's experience (to experience them as one experiences oneself), and a preference for a relatively external, objective relation to them.
• **Sharp focus vs soft focus**: Namely the range between a preference for clear, direct experience and a preference for threshold experiences, felt to be saturated with more meaning than is immediately present.
• **This world vs other world**: Namely the range between preference for belief in the spatio-temporal world as self-explanatory and preference for belief that it is not and can only be comprehended in terms of other frames.
• **Spontaneity vs process**: Namely the range between a preference for chance, freedom, accident, etc and a preference for explanations subject to laws and definable processes.

Either extreme may be favoured for good reason. There are other such systems (see *Systems of Categories Distinguishing Cultural Biases*, 1993).

It has been repeatedly asked to what extent the unfruitful relationship between positive and negative in social situations has been widely reinforced by classic media portrayals of "cowboys and indians" and the incorporation of such dynamics into children's games (JoEllen Shively, *Cowboys and Indians: perceptions of western films among American Indians and Anglo*. *American Sociological Review*, 57, 1992, 6, pp. 725-734). Does that dynamic reinforce any tendency to "accentuate the positive and eliminate the negative" -- where the "positive" is necessarily "people like us" who "share our values", and the "negative" are the unfamiliar others? (cf Media Awareness Network, *The Impact of Stereotyping on Young People*, 2007). This concern has been expressed with respect to Iraq, as noted by David J. Morris (*Playing cowboys and Indians*, 12 Nov, 2004): "The military's emphasis on capturing Fallujah reveals a mind-set stuck in Western frontier mode".

**Reductio ad absurdum?**

The preoccupation with "being positive" is now such that sentences and texts are addressed for the presence of negatives that should be excised in order to make a "positive" impression -- notably in public relations and image building. There are initiatives to eliminate negativity from educational games [more]. This raises surreal issues of whether strategic initiatives should be based on:

- Total elimination of any negatives in any text, raising the question of how problematic issues (a broken leg, a broken pipe) are to be acknowledged (as with the NASA and Thai examples) -- or to what any remedial strategy should be addressed
- Positive speeches that eschew any use of negatives, possibly to the point of censorship (or at least pressures towards self-censorship)
- Design of word processor software (as a marketable product) that would ensure that negative forms cannot be inserted into a text (or a web page), or could be signalled in the manner of grammar checkers
- Avoidance of any reference to negative and problematic matters within organizations -- developing "problem-free organizations". Whilst this might work for some bodies offering recreational or celebratory services, it would undermine the revenue generating capacity of bodies claiming to solve problems -- through maintenance and repair, for example. This approach would be especially challenging for institutions and groups seeking funding to respond to problems (litter, alcoholism, crime, cancer, etc). In such cases it is unclear how such bodies could successfully justify their budgetary requests if their strategies were designed to avoid response to any problem or negative condition. What would UNICEF do, for example, if it did not address the problematic conditions of children -- sell Christmas cards? As prime advocates of a "positive" approach, why is it that religious institutions devote so much attention to "negative" matters such as "evil"?

The mindset raises issues regarding the appropriateness of various "say no" campaigns, often promoted by those committed to "being positive":

- "Saying no" to drugs [more | more | more]
- "Saying no" to alcohol [more]
- "Saying no" to smoking [more]
- "Saying no" to premarital sex [more | more | more]
- "Saying no" to immunization [more]

The dysfunctionality of concentrating efforts in response to problems in terms of positive opportunities is illustrated by the classical tale of the person who searched at night for lost car keys -- under a street light, when the keys had been lost in the inconveniently unlit area beyond the reach of the light. It is also illustrated by the famous example of the Emperor Nero fiddling while Rome burns.

The classic argument in favour of a "positive" over a "negative" approach is illustrated by the example of seeing "a glass as half full" instead of seeing "a glass as half empty". This however fails to take account of the phenomenon illustrated by the classic experiment of putting a live frog into cold water on a stove and heating it gradually. At no point does the frog react "negatively" to the environment by jumping out -- and saving its life. It progressively adapts to the very slight increase in its problematic condition -- without ever recognizing a threshold at which action is required.
Trends towards these approaches are evident in the emergence of "good news" networks as a means of avoiding exposure to "bad news". Is it possible that the world is effectively shifting towards an approach to communication that resembles that of the Japanese polite avoidance of a blunt negative (cf K Ueda. *Sixteen Ways of Saying 'No' in Japan*, 1974)?

In the effort to cultivate a positive "win-win" experience, and avoid the negative experience of losing, particularly striking is the situation in the USA documented by Christina Hoff Sommers and Sally Satel of the American Enterprise Institute (*One Nation Under Therapy: how the helping culture is eroding self-reliance*, 2005) and reported in the *Economist* (7 May 2005):

> ...it is now perfectly normal to phase out competitive sports to spare children the trauma of losing, or to ban games of tag because the child who is chosen to be "it" may suffer from "self-esteem issues". Ms Sommers and Ms Satel point to the growing fashion for games in which children compete only with themselves (such as juggling, unicycling or "manipulating wheelchairs").

**The Funny Side of Negativity: Negative Cartoons**

### Dangerous associations

Despite the neutral insights of management cybernetics, there are unfortunate ways of attaching value associations to "positive" and "negative". There is always the danger that the isomorphism between any polarities, as polarities, would lead to value "leakage" and confusion. This has resulted in confusion and has often been historically disastrous:

- **Male vs. Female**: Thus men have been associated with the "positive" and women with the "negative".
- **Good vs. Evil**: In the case of the male-female distinction, women have in this way been associated with "evil". This perspective has been institutionalized in a variety of ways in religions and has undermined any ability to articulate more fruitful relationships between male and female. (cf George Lakoff. *Women, Fire, and Dangerous Things: What Categories Reveal About the Mind*, 1987). More generally the contrast between "positive and "negative" may be associated with any "good" experience, as opposed to a "bad" experience. As noted above, rain may thus be framed as "bad" weather, resulting in a "negative" experience.
- **Winning vs. Losing**: Winning is naturally framed as "positive" in contrast with "losing". By extension, "winners" may be framed as "good" people in contrast with "losers".
- **White vs. Non-white**: In some cultural contexts, associating with "white people" may be framed as a positive experience, whereas associating with "non whites". This distinction may then be confused with good vs bad.
- "White Knights" vs. "Dark Riders". The epitome of "positive" initiative is exemplified by "White Knights", typical of legends. These may be contrasted with those of the "Dark Force", or more particularly as "Dark Riders". As discussed elsewhere (*The Dark Riders* of Social Change: a challenge for any Fellowship of the Ring, 2002), the simplistic nature of this contrast would be the basis for the most effective disguise for those of genuinely malevolent intent.
- **Believers vs. Unbelievers (Infidels)**: For those of any belief system, continuing belief in it is naturally framed as "positive", possibly recognized as a "positive attitude" (as in many? collective initiatives). By contrast those who do not hold that belief, or cease to subscribe to it, may well be perceived to have a dangerously "negative attitude". The attitude of "infidels" may be further associated with "evil" in order to justify the most extreme forms of sanction.
- **Agreement vs. Disagreement**: Social relations are largely determined by those who are "with us" -- who are in agreement with us -- in contrast with those who are "against us", namely in disagreement with us. Agreement is then seen as "positive", whereas disagreement is necessarily "negative". The negative perception of disagreement, as noted above, may then lead to major disasters.

Fortunately richer understandings of the relationship between positive and negative are embodied in the dynamics between gods and goddesses in many mythologies. The peculiar nature of the boundary between positive and negative is widely explored in literature and drama.

In discussing language as ground, Linda Pollak (*Constructing Ground, Architronic*, May 1996) argues:

> It is fashionable to talk about blurring boundaries, but in fact blurring can serve to maintain a polarity along with its power relations by making it hard to see. For instance, it is blurring that allows certain binaries to stand in for each other. Another kind of blurring allows a continual slippage back to an essentializing notion of nature. In challenging the way binaries operate to obscure understanding through different kinds of blurring and conflation, it is critical to see the edges as opposed to naturalizing them.

### Uncritical thinking

There are groups concerned with the development of critical thinking capacity and the vital need for appropriate discernment [more | more].

This perspective can be contrasted with the uncritical adoption of a mode of groupthink resistant to dissident perspectives (cf *Groupthink: the Search for Archaeoraptor as a Metaphoric Tale*, 2002). Is uncritical enthusiasm for "being positive" an example of groupthink? For example, in commenting on American society, Bob Rusbasan (*In Praise of Negativity*, 26 September 1999) asserts:

> It continues to amaze me how brainwashed the American public is. Most people have not taken the time to develop a consistent set of beliefs and principles to guide their lives. Instead, they mindlessly repeat and believe a bunch of illogical, contradictory
plativities. The anti-negativity mindset is perhaps the stupidest of all. For one thing, it is virtually impossible to express the sentiment without contradicting yourself. Let's look at the simplest formulation: Negativity is bad. Whoa! Hold on there! Negativity is what? How negative! Mere semantic games? If only it were so. Unfortunately, I cannot count the number of times I have heard a valid criticism countered with a simple sentence labeling the criticism as negativity. That's it. No counter-argument, no correction of misrepresented facts, nothing. Just the statement that the criticism is "negative" and the expectation that everyone will shake their heads in disappointment and pay no more attention.

On the other hand Virginia Vallee Delaney (The Roots of Sound Rational Thinking) in a Negative Essay argues that negative (or divergent) procedures in some manner oppose affirmative development.:

There are many ways of being negative. Most of the rational divergence we encounter is antithetical. The terms antithetical, polar, oppositional, antagonistic and factional, as used herein, refer to orientations that rely on opposition for gaining and keeping the upper hand. Antithetical power maneuvers, in one way or another, hinder the development of sound rational thinking. Antithetical commitment supports the escalation of negative oriented philosophy. Negative oriented philosophy encourages antithetical mentalities.

Delaney is however obliged to point out the difficulties affirmatively-oriented people encounter in developing appropriate negative terminology. She asks:

How do we allay the dangers of negative development without sounding negative? ...This difficulty is significant. The words we need to refute the most serious difficulties facing us today are elusive. We find it hard to talk about our most pressing problems with the degree of intelligibility required because we have to create a language before we address the problem.

In partial response to this dilemma, a discipline and methodology, known as appreciative inquiry, has been developed as "an exciting new paradigm for human development and social innovation. By asking positive questions, we can generate new images of the future" [more]. Some of the subtlety in considering such matters is evident in Hegels's Science of Logic [excerpts].

In 2000, the American Psychological Association (APA) held a symposium on the "(Overlooked) Virtues of Negativity", introduced by Barbara Held (Stop Smiling, Start Kvetching: a 5-step guide to creative complaining, 2001; The Tyranny of the Positive Attitude in America: observation and speculation, Journal of Clinical Psychology, 58, 2002, 9, pp. 965 - 991; The Negative Side of Positive Psychology, Journal of Humanistic Psychology, 2004; 44: 9-46) [more more] Cautions were expressed there regarding the "positive psychology movement", notably by Julie K. Norem and Edward C. Chang (The positive psychology of negative thinking, Journal of Clinical Psychology, 58, 2002, pp. 993-1001) in the following terms:

As the positive psychology movement gains momentum, both within psychology and in the broader culture, it becomes increasingly important to ensure that the complexity of individual personality and psychological processes do not get lost in a one-size-fits-all approach to improving human functioning. In this article, we consider some of the ways that the costs and benefits of different kinds of optimism and pessimism may vary across different individuals, situations, and cultural contexts. We use defensive pessimism research to illustrate that there are times when pessimism and negative thinking are indeed positive psychology, as they lead to better performance and personal growth. We also consider the ways in which dominant American culture - and research in psychology - may underestimate some of the costs of optimism.

Julie K. Norem subsequently popularized her arguments into book form (The Positive Power of Negative Thinking: using defensive pessimism to harness anxiety and perform at your peak, 2002 review) -- see also S Gattei (The Positive Power of Negative Thinking, Cladistics, 18, 2002, 4, pp. 446-452). At the APA's 2005 convention, Barbara Fredrickson ( 'Appropriate' negativity necessary for people to prosper, APA Online, 36, 10, November 2005) presented research results showing that positivity without a little negativity can be too much of a good thing.

Christina Kotchemidova (From Good Cheer to "Drive-By Smiling": a social history of cheerfulness, Journal of Social History, 39, 1, Fall 2005) provides a context for the focus on the positive through research on the cult of cheerfulness and why it has become what she calls "the main emotional norm of 20th century America." [more] With respect to business, Chrystia Freeland (Absolutely Positive, Financial Times, 23 February 2007) reviews the criticism formulated by Barbara Ehrenreich, whose book (Bright-Sided: how the relentless promotion of positive thinking has undermined America, 2009) is reviewed by Emily Wilson (see also Carole Cadwalladr, Welcome to the Bright New World of Positive Living, The Observer, 11 October 2009).
Management challenge: positive vs negative

The above reflections are especially interesting in relation to efforts to understand the nature of socio-economic sustainability on a planet of vulnerable resources. What are the policy analogues to the Pa Kua practices necessary to ensure that sustainability? Within this context the question is very significant because these practices transcend contemporary political controversy by weaving together into a cycle practices that are strongly advocated (as "positive") by some constituencies or strongly opposed (as "negative") by others.

The challenge in managing any situation is to acquire skills in responding appropriately to complex mixes of positive-negative situations. The manager can call upon:

- **Consultants focused on the negative**: namely, in response to a well-defined problem, a specialist can be brought in and paid to "fix-it", as with many technical problems in the use of computers. Here the challenge is that the specialist may be far less sensitive to what does work and why, as opposed to what does not work. But enthusiasm for new solutions may lead to recommendations for unnecessary extensive changes to the system that may well not take into account factors that ensure the system works. The fact that fixing the "negative" problem is appreciated as a "positive" outcome is an illustration of the interrelated complexities of positive and negative in practice.

- **Consultants focused on the positive**: the challenge here is that the consultant is paid to focus on how to enhance the understanding and momentum empowering people to move forward -- but without necessarily being able to focus effectively on what does not work, or considering such a focus relevant. Indeed advocating and empowering people to "be positive" may in itself be appreciated as "positive", whether or not the "negative" is ignored.

It is however the management challenge to reconcile such extreme perspectives and to compensate for the factors that they do not respectively take adequately into account.

The management challenge with regard to "positive" may therefore perhaps be more usefully compared to that of a gardener. Typically particular plants may need "more light" or "more shade", "wetter soil" or "drier soil". The variety of plants and conditions have to be appropriately interrelated in the concrete situation (notably as in the discipline of permaculture). Issues of management may therefore include, metaphorically:

- when to encourage and appreciate an orchestra playing (on the sinking Titanic, when disaster was inevitable), and when it is a distraction from concrete action (Nero fiddling while Rome burns)

- when to encourage the ability of those with skills to identify and fix "dirty" problems (overflowing sewers, multiple gunshot wounds), and when to appreciate the "prissy" unwillingness to "muck in"

- when to acknowledge that there is a "problem" (as in the first step in Alcoholics Anonymous: "I am an alcoholic"), and when to focus on potential (irrespective of the problems)

The requisite perspective is then not to blindly favour "positive" over "negative" but to understand when to favour one rather than the other and how to sustain over time the cycle shifting between combinations of "positive" and "negative". The practicalities of how to do this with heat engines were basic to the miracle of the industrial revolution. The challenge of how to design operational "value engines" and "axiological pumps" remains.

Life-skills required for "self-management" call for analogous flexibility in acquiring the grace and elegance associated with maturity in:

- knowing when and how to lose, notably in order to develop...
- knowing when and how to win

The dilemma is somewhat analogous to the choice offered between:

- allopathic treatments using pharmaceutical products targeted to a specific illness (that may only be a symptom), namely without addressing the lifestyle issues that will tend to re-enganer that problem
- homeopathic treatment using products in the light of a whole-system perspective that may not effectively address the immediate suffering
Embracing error

One strategically appropriate response to the "negativity" of error has been usefully articulated by Donald Michael ("On the requirement for embracing error". In: On Learning to Plan and Planning to Learn, 1973):

"Changing towards long-range social planning requires that, instead of avoiding, exposure to and acknowledgement of error, it is necessary to expect it, to seek out its manifestation, and to use information derived from the failure as the basis for learning through future societal experiment. Here bluntly, future-responsibility societal learning Makes it necessary for individuals and organization to embrace error. It is the only way to ensure a shared self-consciousness about limited theory as to the nature of social dynamics, about limited data for testing theory, and hence about our limited ability to control our situation well enough to expect to be successful more often than not".

This concern has been echoed by John O'Brien (Embracing Ignorance, Error, and Fallibility: competencies for leadership of effective services. Responsive Systems Associates, Inc, 1987)

Leadership and "negative capability"

A number of studies explore the relevance of a particular understanding of negativity -- known as "negative capability" -- notably in organization and management (W Dennis, On Becoming a Leader, 1998; Charles Handy, The Age of Unreason, 1989). As originally articulated in 1817 by the poet Keats, negative capability is described as:

...when man is capable of being in uncertainties, Mysteries, doubts, without any irritable reaching after fact and reason.

Following on Robert French's studies (Negative Capability', 'Dispersion and the Containment of Emotion, 2000; 'Negative Capability': Managing the confusing uncertainties of change. Journal of Organizational Change Management, 2001), Peter F Simpson, Robert French and Charles E Harvey (Leadership and negative capability, Human Relations, Vol. 55, 2002, No. 10, 1209-1226) examine the concept as follows:

Our aim in this article is to explore and explain the concept of 'negative capability', in the context of the current resurgence of interest in organizational leadership. We suggest that negative capability can create an intermediate space that enables one to continue to think in difficult situations. Where positive capability supports 'decisive action', negative capability supports 'reflective inaction', that is, the ability to resist dispersing into defensive routines when leading at the limits of one's knowledge, resources and trust. The development of negative capability is discussed but it is suggested that its status is problematic in the context of a societal and organizational culture dominated by control and performativity. The practice of negative capability is illustrated throughout the article, using a case study of the leadership of an international joint venture.

Earlier, the authors had explored the relation to "not knowing" (Robert French and Peter Simpson (Our Best Work Happens When We Don't Know What We're Doing).

Relating to the unknown -- beyond denial

Beyond embracing error (as noted above), Donal Michael has endeavoured to clarify the challenge of leadership in relation to denial (cf Leadership's shadow: the dilemma of denial. In: Futures 26, 10, Dec 1994). In commenting on that perspective in the same journal (The Future of Leadership Reframing the unknown, 1994), a case was made for:

... the need to understand patterns of denial and affirmation as they affect efforts at consensus formation. Leadership is presented as an interface role, orchestrating the exposure to light and shadow, between that which can be communicated (to followers) and that which cannot. The challenge for leadership is portrayed as one of navigating through shifting patterns of affirmation and denial. This challenge is represented in terms of four zones ranging from simple consensus, through situations undermined by unwritten rules, to a zone in which neither assertion nor denial is relevant. The latter is seen as more typical of Eastern approaches to governance. It is argued that complementary patterns of affirmation and denial are essential to the processes of sustainable communities.

It is useful to contrast various approaches to knowledge about the unknown in terms of a framework used by Peter Koenig (30 Lies about Money, 2003) as follows:

<table>
<thead>
<tr>
<th>Approaches to knowledge about the unknown</th>
<th>Knowing</th>
</tr>
</thead>
<tbody>
<tr>
<td>B: Knowing what one does not</td>
<td></td>
</tr>
<tr>
<td>A: Knowing what one</td>
<td></td>
</tr>
</tbody>
</table>
In a research situation of exploring recognized frontiers of knowledge, knowing (as in a research situation exploring recognized frontiers of knowledge) knows (as with the confident use of known technologies).

<table>
<thead>
<tr>
<th>Not knowing</th>
<th>Knowing</th>
</tr>
</thead>
<tbody>
<tr>
<td>D: Not knowing what one does not know (an anxiety of those advocating the precautionary principle with regard to impacts of innovations)</td>
<td>C: Not knowing what one already knows (as with memory failure or a blindspot)</td>
</tr>
</tbody>
</table>

With regard to the four situations:

- **A:** This is the straightforward condition in which a positive attitude may be appropriate, given that surprises are not to be expected. There is no sense that anything of relevance is not known. Collectively this may be associated with the phenomenon of "group think" (as subsequently determined to have been the attitude of the US intelligence community to Iraq).
- **B:** Here there is an element of doubt, a somewhat negative condition associated with an experimental approach. The need to be sensitive to what may not be known is recognized, given that it may be associated with unexpected surprises (whether positive or negative). The condition is associated with many games -- before there outcome is known.
- **C:** Here there is a (possibly temporary) failure to recognize or remember what one already knows. In this negative condition of not knowing there is a failure to connect with positive enabling knowledge. This may be associated with a form of denial, as notably explored in the initial ambiguity of whistleblowers (halfknowing, not knowing, not wanting to know) by Stanley Cohen (States of Denial: Knowing about Atrocities and Suffering, 2001). It might be said to be typical of attitudes to global warming (cf Richard Register, Global Warming and the Elephant in the Living Room, 2005) and to other issues illustrated by that metaphor (notably population). It may also be associated with age or social collapse. This condition might also be understood in terms of what is known but "unsaid" in any social group (Global Strategic Implications of the Unsaid: from myth-making towards a wisdom society, 2003). Thus some may indeed know what is unsaid, but others may have no knowledge of it and may not suspect its existence. The latter condition relates to the following.
- **D:** In this case there is no knowledge or recognition of what is not known, possibly because of lack of exposure to relevant experiences. The existence of this condition, and the possibility of such ignorance, may also not be recognized and may be effectively denied. The condition might be said to have been recognized by the title of an article of Seymour Hersh (The unknown unknowns of the Abu Ghraib scandal, Guardian, 21 May 2005).

The four conditions may be used to explore attitudes towards anomalous phenomena -- whether variously denied as hallucinations, treated as unexplained possibilities, or ignored as momentary glitches in instruments of data collection. The history of recognition of environmental phenomena such as "acid rain" or "global warming" -- or health risks of various cancerogenic substances -- could also be explored as perceptions of these shifted between these four conditions over time.

Of potentially great interest is the deliberate manipulation of "knowing/not knowing" as described by Naomi Klein (The true purpose of torture, Guardian, 14 May 2005):

> This strategic leaking of information, combined with official denials, induces a state of mind that Argentinians describe as "knowing/not knowing", a vestige of their "dirty war".

Depending on how conditions B, C and D are understood, they may also relate to spiritual concerns with the so-called Cloud of Unknowing, the Dark Night of the Soul described by St John of the Cross and others [more], the apophatic Via Negativa, or Sanskrit reference to Neti Neti ("Not this, Not that") -- and the learning implications of "endarkenment" (Enlightening Endarkenment: selected web resources on the challenge to comprehension, 2005). Metaphorically, it is interesting to consider its challenge to comprehension in the light of that of the "dark matter" making up 23% of the universe -- that cannot be detected by its emitted radiation (but whose presence can be inferred from gravitational effects on visible matter, like stars and galaxies).

As remarked in the Daily Zen Journal (March 2005):

> What do I really know? Mystery and wonder are intertwined. What we think we know becomes devoid of wonder, and a life without wonder becomes devoid of richness, depth, and of the Way itself. This exercise is a return, through enquiry, to the wonder of not-knowing.

Not-knowing is unlimited; knowledge is limited. Not-knowing is the ground of mystery, the land of wonder; a haven to be visited daily. It is the source of creativity, inventiveness, and tranquility all in one. Not-knowing is the only place from which freshness can emerge. Of all the knowledge which you know (as with the known), what have you truly learned on your own, through observation, intuition, enquiry?

Return to Not-knowing! Rest there a while. Expect nothing. Then emerge gently to view the world with fresh eyes. This is meditation, rejuvenation, the source of creativity all rolled into one.

In a classic commentary on Buddhist thought, Chogyam Trungpa (Cutting Through Spiritual Materialism, 1973) uses a metaphor to describe the functioning of the ego:
The Lord of Speech refers to the inclination on the part of ego to interpret anything that is threatening or irritating in such a way as to neutralize the threat or turn it into something "positive" from the ego's point of view. The Lord of Speech refers to the use of concepts as filters to screen us from a direct perception of what is. The concepts are taken too seriously; they are used as tools to solidify our world and ourselves. If a world of nameable things exists, then "I" as one of the nameable things exists as well. We wish not to leave any room for threatening doubt, uncertainty or confusion.

The challenge of the relationship between knowing and not-knowing is well expressed by A H Almaas of the Ridhwan Foundation (2004):

This possibility of not-knowing thoroughly permeates our experience all the time, in all possibilities and all situations. It is fundamental to our knowing capacity. In fact, our basic knowing capacity begins by not-knowing. How can you be knowing, if you don't first not know? We tend to be scared of not-knowing; we are unable to see that it is the pervasive ground of our knowledge. Not-knowing, in some sense, is where we live all the time. Every piece of knowledge is situated in not-knowing. It is the space where all knowledge is. So we can say that basic knowingness is the field of not-knowing, which can manifest forms within itself that this knowingness recognizes. [more]

A talk by Master Sheng-yen (Not Knowing is Knowing, 1993), quotes Niu-t'ou Fa-Jung (From the Song of Mind, 594-657 AD):

Knowing dharmas is not knowing. Not knowing is knowing the essential...

The highest principle cannot be explained: It is neither free nor bound. Lively and attuned to everything It is always right before you.

Dangerous consequences of ignoring the cycle

Exhortations to "be positive" may well say more about the enjoiner than about the person to whom the directive is addressed. However the trap of dependence on a positive framework is likely to conform to the adage of policy scientist Geoffrey Vickers: A trap is a function of the nature of the trapped (Freedom in a Rocking Boat, 1972).

The challenge of being positive, whilst avoiding any negative information as misguided (or even dangerously dysfunctional), can be viewed in terms of the lessons of the RMS Titanic. It was the captain, the designer and the builder who epitomized a positive attitude -- resistant to any information to the contrary (as with the NASA and Thai examples). This is similar to the strategies of many in response to the challenges they face, whether individually or collectively.

Under such circumstances on the Titanic, calls for "positive action" might well be analogous to supporting rearrangement of the deck chairs -- a sense of positive engagement that might be compared to the person in search of car keys at night, under the convenient street light where they had not been lost.

In terms of the so-called "clash of civilizations" and cultures, the tendency of western cultures to endeavour to deal only in the "positive" will make them increasing vulnerable. Other cultures, notably in Asia, have a much more sophisticated ability to deal in subtle combinations of "positive" and "negative". This will give them an increasing strategic advantage. Such strategic consequences were first explored with respect to the outcome of the Vietnam War by Scott Boorman (The Protracted Game: A Wei-ch'i Interpretation of Maoist Revolutionary Strategy, 1969). Boorman noted the American dependence on chess logic in comparison with Maoist exploitation of the logic of the eastern game of go. Susantha Goonatilake (Toward a Global Science: mining civilizational knowledge, 1999) has articulated this emerging comparative advantage in the field of scientific innovation, stressing that eastern cultures make use of much richer metaphors.

Symbolic relationship between positive and negative

In considering the challenge of comprehending a fruitful relationship between positive and negative, it is worth considering symbol systems that have given a great deal of attention to the matter (cf Configuring Conceptual Polarities in Questing: metaphoric pointers to self-reflective coherence, 2004; From Statics to Dynamics in Sustainable Community, 1998). This is for example the case with Chinese consideration of the relationship between yang ("positive") and yin ("negative") as notably expressed in the symbol of the Tao.

At Quantonics, Doug Renselle (Schrödinger's Lissajous to Tao and Möbius Morph, 2005) has noted that Erwin Schrödinger sketched a "Double Möbius Tao Helix Hydrogen Atom" (cf Notebook N1, in Walter Moore, Schrödinger, CLP USA digital reprint, paperback, 2001, p. 193). Renselle has worked on the topological ontology of the Tao to Möbius to Tao graphic transmutation based upon Schrödinger's hydrogen atom wave function Lissajous [more].
Articulations of this relationship have been embodied in the binary coding used in the I Ching (cf Discovering richer patterns of comprehension to reframe polarization, 1998). The classic depiction of opposite yin-yang complementarities can be understood as a two-dimensional projection of the topology of a Klein bottle (as suggested to the author by Nadia McLaren). Melanie Purcell (Imperatives for unbiased holistic education: the Klein bottle, a universal structure: an archetypal image, 1999; What are The Relationships Between Infinity and Zero?: the diagonally woven single joined thread Klein bottle, and the implications of a cyclic universe, 1998; Looking at the Universe through the belly of a Klein bottle, 1999) has explored this as follows:

Truth is relative to the perspective of the observer, and the nature of the perception of reality will determine the nature of the truth expressed. In this presentation I want to explore the relationships between opposed world views and how these oppositional perspectives will determine the nature of truths held. Most models used to describe relationships create an exclusive domain that exteriorises that which is outside or marginalised by the structure.

The Klein bottle is one structure that creates no exclusive domain as it is a modality that, through a structural twist, unifies the inside and outside surfaces into a continuous surface. Through the use of such a structure, seemingly opposed perspectives can be illustrated as aspects of the whole where seemingly paradoxical environments necessitate a decisive shift from an "either / or" critique to a pluralistic "and / both" scenario. This structure allows for the relativity of truths to be realised as expressions that are inextricably linked to relative world views, and therefore creates a focus for a holistic approach to information generation.

Whereas Purcell has focused on understanding topological manipulation of the lines used to represent yin and yang, and the associated classic symbolism (notably of a pelican pecking at its breast), the symbol of the Tao above can itself be understood as a two-dimensional representation of a Klein bottle (and as a stylized approximation to that of the pelican):

- the small black circle (within the white zone) is to be understood as reduced to a "cognitive singularity" through which the black surface is to be seen and by which access to it is obtained
- the small white circle (within the black zone) is to be understood as reduced to a "cognitive singularity" through which the white surface is to be seen and by which access to it is obtained
- effectively these two circles are the same singularity seen from the different surfaces, one "inside" and one "outside" the higher dimension Klein bottle
- the white and black surfaces are then continuous through the "cognitive singularity", such that there are not two surfaces but a single surface that is readily seen as of two kinds, depending on from which side of the singularity the surfaces are viewed.

Purcell clarifies the relationship of the Klein bottle to the more readily understood Möbius strip. A Klein bottle can be produced by gluing two Möbius strips together along their edges; this cannot be done in ordinary three-dimensional Euclidean space without creating self-intersections. The symbol of the Tao might then be usefully be understood as a Klein bottle as represented by Picasso!

The pelican symbolism is common to Christianity [more] and to 18th Degree of Freemasonry (Knight of the Rose Croix which was also known as the Knight of the Pelican). The pelican is an alchemical symbol for the stage known as mortificatio or nigredo, the breaking open of the outer shell to reveal the inner person (cf Enlightening Endarkenment: selected web resources on the challenge to comprehension, 2005). As the mother pelican was believed to feed her young from blood pecked from her own breast, she is also sometimes used as a general symbol of self-sacrifice. From a depth psychology perspective into alchemical symbolism, Craig Chalquist (Cooking For The Collective Unconscious: An Alchemically Enlivened Recipe) points out:

... the whole secret is in knowing the vessel. It must be thick so its boiling contents won't get away (projection, symptoms, psychosis). It most focus its heat on its center, aided by reflux condensers and the retort called the pelican, in which the distillate runs back into the belly. Put psychologically: in the sturdy vessel of an ego purged of personal issues, the contained nonego self can undergo transformation.

For further comments see Remo F. Roth (The Seal of Solomon and the Pelican of Alchemy, 2003) in the light of his study of The Wheel Image of Nicholas von Flue as Symbol of the Subtle Body.

Cognitive singularities

The argument above with regard to the Möbius strip or Klein bottle models of the transition between positive and negative highlights the challenge to comprehension of a cognitive singularity in the transition between them. The necessary cognitive "twist" has been explored elsewhere (Twistedness in Psycho-social Systems: challenge to logic, morality, leadership and personal development, 2004; Engaging with Questions of Higher Order: cognitive vigilance required for higher degrees of twistedness, 2004). The concept of singularity features notably as a gravitational singularity in astrophysical models based on general relativity that predict a point of infinite space-time curvature. The term is closely related to the mathematical meaning of "singularity": The Big Bang cosmological model of the universe contains a gravitational singularity at the start of time.
A helpful review of singularities has been provided by Acceleration Watch (A Taxonomy of Singularities: Comparing the Literature on Systems of Accelerating Change). However, it is noteworthy that the treatment of "cognitive singularity" does not address the subjective dimension of a psychological singularity or an experiential singularity that is so evident in the transition between polarities such as "positive" and "negative". Subjective singularity may well be explored in without only minimal sense of such a transition as in the discussion of the "irreducible, experiential singularity of feeling (Patrick Hogan. Literature, God, and the Unbearable Solitude of Consciousness, 2004). By contrast, in a contribution to the Ken Wilber Forum, Peter Collins usefully explores the isomorphism between astrophysical and psychological singularities, including that of the "dark night of the soul" (cf Black Holes - Physical and Psychological). A related comparison was made earlier by Peter Russell (The White Hole in Time: our future evolution and the meaning of now, 1992).

A cognitive singularity is indeed understood to be associated with the technological singularity in the development of a civilization. This has now been predicted as the point at which technological progress accelerates beyond the ability of present-day humans to fully comprehend or predict. This prognosis is based on statistical data showing the exponential acceleration of various trends in human civilization.

Cognitive singularities play an important part in the psycho-social singularity associated with this technological singularity. As noted by John Smart (Exploring the Technological Singularity: Seeking the Universal Drivers of Accelerating Change, 2002):

Computational singularities occur when a mode of simulation/computation used by any discrete adaptive physical system undergoes an irreversible change, a type of phase transition to a new regime. Solitary insects simulate their external world in a particular way. Social insects (such as bees, ants or termites) add a whole new layer of simulation complexity. The shift in reference frame between these two simulation systems represents a computational singularity. Each operates in a relatively discrete computational domain and organisms in one domain (say, an ant or a chimpanzee) cannot understand certain simulations occurring in another’s domain once the latter’s simulation system has become sufficiently quantitatively or qualitatively different. Also known as "cognitive" singularities, these play an important role in understanding the coming technological singularity.

As remarked by Smart, unknowability is a property of computational-cognitive singularities. The issue is of great importance to the predicted traditional to widespread use of artificial intelligence and a global brain (cf Simulating a Global Brain: using networks of international organizations, world problems, strategies, and values, 2001). It is of concern to the transition from the The Pre-Singularity Economic Environment:

When we learn to model accelerating change as disruptive only on some scales, and continuous on others, when we realize that the technological singularity will represent only a partial cognitive singularity for human actors, then we can use the benefit of history to understand the constrained trajectory of the financial market as a complex system. In this light, perhaps the easiest way to forsee why the markets which presently exist to solve human problems will not be destroyed once technology has surpassed unmodified humanity is to examine the record of computational technology's effect on society to date, as we have briefly done above.

The operation of a cognitive singularity has perhaps been more comprehensively addressed for the individual by Ulrike Seegers (Transformatio energetica - Hermetische Kunst im 20. Jahrhundert. Von der Repräsentation zur Gegenwart der Hermetik im Werk von Antonin Artaud, Yves Klein und Sigmar Polke, 2002):

The thesis is put forward that aesthetic experience and hermeneutic experience coincide in the epistemological access to the sensuous and also in the coincidence of subjectivity and objectivity, activity and passivity. Dynamic reciprocity is defined as constitutive for aesthetic perception and is associated with a substantial transformation of what is perceived as well as of the self-reflection of the perceiver. Seeing appears as the production of an (image) object which, in its transforming character, recalls the alchemistic quintessence. The hermetic art of alchemy ("solv et coagula") translates, in a metaphorical sense, the productivity of perception into the language of objectivity. The hermetic-aesthetic polarity of the epistemological structure is demarcated in its cognitive singularity by means of Heinrich Rombach's "image philosophy" vis-à-vis Gadamer's ideal of knowledge, which is oriented towards understanding.

The transition through the singularity may also be explored as an epistemological singularity. The challenge is to embed experiential insights regarding singularities into the possibilities envisaged by mathematics, notably John Wheeler's Geometrodynamics, which theorizes how black holes in time-space geometry could actually become "worm-holes" into another quadrant of that same geometry (universe), or "white holes" into a potentially infinite number of parallel time-space geometries (universes). For example, Martin Rosenberg (Contingency, Liberation and the Seduction of Geometry: hypertext as an avant-garde medium,

John Wheeler addresses black holes, which are anomalies in the time-space geometry of Einstein and Minkowski. Now most conceptions of black holes see them as points of infinite density, as singularities with infinite gravitational pull that distort the time-space geometry in their environs. Wheeler theorizes that these black holes may also indicate not just a point of singularity, but a portal, a vortex that may serve as a node through which matter may enter and, in some mysterious way, exit. This portal enables two possibilities: first, a black hole may become a "wormhole" that allows jumps from one place, through a "hyperspace," to another location in the same geometrical grid; second, and more interesting, a black hole may have a reverse function, so that mathematical representations of "white holes" have been developed to describe how matter emerges from out of a node in space-time geometry. This theory evolved even to the point of postulating that a black hole may function as a white hole emerging in a parallel universe. In this extension of General Relativity, there could be any number of parallel universes connected by any
number of gravitational anomalies in their respective time-space geometries.

Autopoietic systems

Autopoiesis is the process whereby an organization, understood as a unity (such as a cell, an organism, and even a corporation), produces itself. An autopoietic organization is an autonomous and self-maintaining unity which contains component-producing processes. The components, through their interaction, generate recursively the same network of processes which produced them. An autopoietic system is operationally closed and structurally state determined with no apparent inputs and outputs. The space defined by an autopoietic system is self-contained and cannot be described by using dimensions that define another space. It is through the review of such systems that richer understandings of the role played by "positive" and "negative" may be obtained.

Kent Palmer notes that autopoietic systems are characterized by being both open and closed at the same time— as specifically referred to in the theory of self-production of Humberto Maturana and Francisco Varela. As an introduction to a project of grounding reflexive sociology in a reflexive autopoietic dissipative special systems theory, Palmer (Possible Grounds for a Reflexive Sociology: a mathematical and ontological basis for a scientific sociology? 2003) highlights the topological ordering significance of the Mobius strip, the Kleinian bottle, and what he terms the hyper-Kleinian bottle. He considers the possibility of:

... an endless information machine. Strange attractors seem to play this role. Such an perpetual information machine might take the form of information moving around a Mobius strip. In other words such systems expand spreading their order from a singularity toward their boundary at which conversion of the environmental order occurs. It is as if there were a flow of information from singularity to boundary which was self-perpetuating which feeds off of the disordering of the environment. Overall positive entropy imbalance is maintained but locally there is negative entropy. The surface of the boundary between the positively entropic and the negatively entropic is similar to the non-orientable surface of the Mobius strip. It has similar strange properties. It allows a reflection of the ordering back to the singularity at the core of the dissipative special system in such a way that the waterfall of ordering gives rise to itself continually. There is the same strange disparity between the global appearance of positive entropy increase and the local eddies of negative entropy that make up the dissipative ordering special system.

These unusual topological forms, according to Palmer, then provide insights into autopoietic systems:

The Nekker Cube and the Kleinian bottle together give us a picture of the autopoietic symbiotic special system. Like the Kleinian bottle it is made by conjuncting two lower level Mobius strips. It appears as a symbiosis of these two lower level systems at the structural level and thus is like the Nekker cube, each dissipative special system pops out as the figure on the ground of the other dissipative special system and we cannot hold the two in a stable formation perceptually. This is because at the organizational level they have fused completely into a higher order nonorientable anomalous form. The Kleinian bottle like the autopoietic system has the appearance of a closed system which is yet open to interference from the environment.

The Unconscious Civilization

| Fabulation in all of us suggests a fear of reality. A weakness for ideology. A need to believe in single-stroke, cure-all solutions... All of which translates into a debilitating passivity when faced by crises. This suggests that we have difficulty perceiving our own weaknesses... If we are unable to to identify reality and therefore unable to act upon what we see, then we are not simply childish but have reduced ourselves to figures of fun -- ridiculous victims of our unconscious....
| But the confronting of reality usually is a negative process. It is ideology that insists upon relentless positivism. That's why it opposes criticism and encourages passivity. I would argue that confronting reality -- no matter how negative and depressing the process -- is the first step towards coming to terms with it... John Ralston Saul, 1995 |

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