Human: Machine, Ape or Dolphin?

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Abstract

"Deep" metaphors can be seen to underlie "surface" reality. By becoming conscious of these, we are in a better position to see what possible futures they point to. We are also able to choose alternative metaphors that align more readily with our preferred futures. "Human as machine" and "human as ape" are metaphors that can be seen to uphold the dominant Western worldview. It is proposed here that through embracing a different metaphor – "human as dolphin" – a culturally transformative process would be facilitated.

1. Introduction

"We all need to become more creative and agile in our imaginations in order not to accept passively the so-called inevitable trends of dehumanised futures." (Gidley 2000: 244)

"Increasing interest in the role of imagination in the creation of present and future realities relies to a high degree on the use of metaphor." (Judge 2000)

Futures studies looks at "what potential futures may lie ahead – be they possible, plausible, probable or preferable." (Voros 2003) Unlike other possibilities, *preferable* futures is intrinsically normative, requiring us to think of what we actually want. This is clearly a highly relevant approach given the extent of the global problematique. We need to take a step back, clearly see what is happening and understand why. In addition, we need to have a clear vision of where we want to go and how to get there. We need to do less "futures scanning" and more "futures building". (Bussey 2002)

This active, emancipatory process embraces a number of overlapping futures areas. These include:

- working with the imagination;
- visioning positive futures;
- taking the long view; and
- addressing ethics and ethical development.

This process can also be positioned within an understanding of different *levels* of futures work, such as those categorised by Richard Slaughter. In order of increasing depth, these are: pop futurism, problem-focused futures study, critical futures study, and epistemological futures study. (Slaughter 1999: 248) This categorization parallels the four levels in Sohail Inayatullah's Causal Layered Analysis method. The first three – in order of increasing depth – are: the litany layer, the social layer and the structural layer. (Inayatullah 2000) "The fourth layer of analysis is at the level of metaphor or myth. These are the deep stories, the collective archetypes, the unconscious, of often emotive, dimensions of the problem or the paradox... This level provides a gut/emotional level experience to the worldview under inquiry." (Inayatullah 2000)

This paper attempts to address this deepest level, addressing the question: what might it mean to be

human? In line with both Slaughter's and Inayatullah's understanding, it can be seen that underlying metaphors regarding the human being guide our (individual and collective) thoughts and behaviour – mostly unconsciously – and that by uncovering these – and imagining alternative ones – we are in a better position to decide what we really want and picture more clearly our preferred futures. In this way, we can assist in the much-needed process of civilisational renewal. (Macy 1993)

Lakoff and Johnson, in their seminal work on metaphors, concur: "Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature... But our conceptual system is not something we are normally aware of." (Lakoff 2003: 3) Pertinently, they continue, "New metaphors have the power to create a new reality. This can begin to happen when we start to comprehend our experience in terms of a metaphor, and it becomes a deeper reality when we begin to act in terms of it. If a new metaphor enters the conceptual system that we base our actions on, it will alter that conceptual system and the perceptions and actions that the system and actions that the system gives rise to. *Much of cultural change arises from the introduction of new metaphorical concepts and the loss of old ones.*" (my italics) (Lakoff 2003: 235)

Distinction must be drawn between metaphor and the object signified by the metaphorical term. Whilst there is mostly a significant overlap, the collective unconscious can breathe its own mythic life into the concept so that certain aspects are emphasised whilst others are de-emphasised. For example, we might picture a creature like King Kong upon hearing the word "ape", yet this fictional icon bears little relationship to the behaviour of an actual biological gorilla.

Distinction also needs to be made regarding the "direction of relationship" between the metaphoric object and its descriptive term: this paper looks at "human as dolphin", for instance, not "dolphin as human". Notwithstanding this, whilst investigating artificial intelligence, Sherry Turkle points out, "Asking 'Can a machine think like a human' forces us to stop and consider

what it means to be human. And that forces you to think of yourself as a machine!" (Turkle 1984) There is therefore, necessarily, some convergence of object and descriptive term, which this paper allows for.

One of the characteristics of metaphors is that they allow a certain ambiguity in interpretation. Tony Judge notes that metaphor was especially valued in past Chinese and Japanese civilisations, "because of the way it enabled ambiguity and complexity to be handled without the traps associated with over-definition." (Judge 2000) This ambiguity perhaps mirrors the ultimate unknowableness of what it means to be human; it certainly reflects the unknowableness of the future – the increasing unknowableness, the further we attempt to project forward. (Voros 2004) Yet metaphors are not so vague as to be useless. On the contrary, they can be seen to be beautifully balanced between the specific and the open. Metaphors are soft yet powerful, like water to a Taoist, reflecting the grand poetry of life.

Every metaphor has a unique set of nuances, as the outline of their influence on both historical and current cultural trends presented here indicate. Nevertheless, some generalisations can be made. Specifically, it is suggested that no metaphors are inherently good or bad. Judgement depends upon context. All metaphors can have positive value; it is their overuse which most likely causes problems. The extent of the global problematique strongly indicates that this is currently the case: we are suffering from koyaanisqatsi:[1] a life out of balance. In this paper, it is suggested that two of the dominant – and overused – metaphors guiding humanity at present is "human as machine" and "human as ape". As part of a normative methodology, these underlying metaphors can be seen on balance to contribute to the current global crises and so this paper focuses on their negative qualities. In contrast, an alternative guiding metaphor is proposed, one that can on balance form part of the global solution – that of "human as dolphin". This can be interpreted as not yet fulfilling its potential, and so, as an "underused" metaphor, its positive qualities are emphasised here. This

notwithstanding, the discussion of futures for each metaphor starts with a counterbalance: positive aspects of ape and machine metaphors and potential negative ones of dolphin. Associations are also made with the six future scenario archetypes elucidated by Wendy Schultz: Business as Usual, Environmental Sustainability, Ideological Exclusionism, High Technology Transformation, Spiritual Transcendence, and Collapse. (Shultz 2003)

2. Machine [2]

> *"a large chunk of our philosophy – and therefore our culture – is based on the man-machine metaphor"* (Keith 2001) [3]
> *"It's a machines world / Don't tell me I ain't got no soul / When the machines take over / It ain't no place for rock and roll"* (Queen 1984)

It is perhaps no surprise that the metaphor of "human as machine" can be readily uncovered. Western civilisation has been increasingly strengthening its ties to technology since the Enlightenment, and especially since the industrial revolution. Many wonders have come from this. And much suffering, too. Taking an overview, one can see that the development of technology has paralleled the development of the "rational ego" (Wilber 1995: 375) and, as such, is symptomatic of cultural evolution. However, simultaneously, Western civilisation has become a "flatland" (Wilber 2000: 41) where our biological grounding and spiritual truths have been marginalised and denied. Furthermore, whilst much *exterior* progress has been made, *interior* progress has been given scant attention. (Wilber 2000: 86) Notwithstanding the attempts of the android, Data, in *Star Trek: The Next Generation* to become human – or of the android David in the film epic, *Artificial Intelligence*, to find spiritual transcendence – machines, unlike humans, do not have consciousness.[4]

2 (a) Past

The "man-machine" metaphor has been around at least since ancient Greek times. However, its first consistent exposition was by La Mettrie in 1747, who, following on from Descartes' view of the organism as essentially being like any "man-made device", brought an organic component into the idea concept of mechanism – allowing for the mechanistic cause-and-effect of emotional states, for example.(Vartanian 1960) Responding to the vogue of idealistic philosophy and romanticism, the metaphor retreated, only to return with a vengeance in the nineteenth century with its view on living things being seen as a function of "reflexes", leading to behaviourism in the twentieth, especially in biology and psychology. (Vartanian 1960)

The metaphor of "human as machine" developed in tandem with the technology of the time. Following on from printing press and mechanical clocks metaphors, the industrial revolution started to metaphorically build up "steam". Our muscles were soon analogised to pistons, our eyes seen as cameras, our ears, microphones. At a macro-economic level, we became cogs in a huge machine.

2 (b) Present

The economic machine has become more encompassing. We are "human *resources*"; we become statistics; we consume products; we produce products; we are workers who can be discarded if we are seen not to "function" efficiently. Status is ascribed to hierarchical position. Similarly in mainstream educational "systems": human children are too often seen as blank units to be fed information and processed into adult human resources. The school bell rings, eliciting required Pavlovian responses to enable children to receive prescribed information. One standard (academic grades) fits all. Like a never-ending factory sieve, those with insubstantial grades fall through the net into the underclasses; the rest roll towards the adult economic machine.

The latter half of the twentieth century also saw the spectacular rise of the metaphor of the cerebral machine: the computer. The complexity of the computer has led to an even greater temptation to underpin our conceptions of humanity with these modern machines. The human brain, in particular, is seen as a

computer: "The metaphor of the brain as a computer is now firmly fixed even in the popular imagination. ...most scientists now regard the brain as an organ whose purpose is information processing." (Bhalla 2002)[5] We describe speaking at meetings as engaging in "group process". (Rubik 1991) Neural connections are our "hardware"; our minds – which are seen to perform "the thinking of information" – our "software". Wisdom is reduced to knowledge; knowledge to information; information to data.[6] We have unwittingly based our technology on the mechanics of the physiosphere rather than the infinitely more complex biosphere. (Sahtouris 2000)

Acutely critical of this "human as machine" epistemology, Slaughter states, "New technologies such as virtual reality, the human genome project, nanotechnology and so-called 'artificial intelligence' all raise as many problems as they promise to solve. No-one is asking for them. ...On the whole, Western societies – indeed, many Western futurists – have yet to decisively wean themselves away from anodyne, machine-led views of futures that are clearly not viable in the long term." (Slaughter 1999: 95)

2 (c) Futures

2 (c) (i) Technological utopias

Many of these futurists' visions can be seen to fall under Schultz's scenario archetype of High Technology Transformation, projected endpoints of a technocracy's fetish. Michio Kaku's "Visions", for instance, are of a technological utopia. But in a critical analysis, Marcus Anthony uncovers "the greatest unconscious narrative" of the book, incisively observing the myth: "Technology will reign supreme and rescue us from the perils of the human condition. The spiritual will die (it was intangible and immeasurable after all) and the machine will live." (Anthony 2003) Ultimate humanity as ultimate machine.

Spirituality needn't be discarded in machine utopia, however. In "Augmentation, symbiosis, transcendence: technology and the future(s) of human identity", Walter T. Anderson quotes Kurzweil as predicting that by the year 2099, "there will no longer be any clear distinc-

tion to be made between humans and computers", referring to the notion of the "singularity" in human evolution. (Anderson 2003) Anderson then goes on to laterally draw on the mystical writings of Pierre Teilhard de Chardin to support the idea of a cyborg-like "majestic union" between all of nature, humanity, information systems and "mechanical constructions" – the advent of a "global super-organism". (Anderson 2003)

A subtler – and powerful – use of the "human as machine" metaphor is achieved by Herbert Gerjuoy. In keeping with the theme of this paper, Gerjuoy states, "How we picture the universe affects how we think about the universe, what questions we ask, what surprises us, and what we do not notice", and then declares that, "The computer is my principal metaphor for the universe." (Gerjuoy 2000) In so doing, although humanity is seen as part of the universe and therefore part of the computer metaphor, the resultant vision is intelligently imaginative. He envisions, for instance, that, "Life and culture will be seen as art forms" and that, "The reality of other universes will be accepted." And whilst, "Humans will be increasingly predictable" and "Human behaviour, mental processes, and experience will be increasingly controlled", "Environmentalists will focus on 'wise control'" and "Shared pleasure and pain will favour the further development of our sense of altruism." (Gerjuoy 2000)

Gerjuoy shows us that the machine metaphor need not necessarily preclude a sense of the spiritual or the humane. Yet for most technological utopias, little attention is given to the question of *who* benefits. If this scenario archetype is going to produce happiness for all, it must include the process by which this is meant to happen, including a rigorous critique of similar proclamations in previous eras when a process was cited yet in reality never worked. The affluence of The North did not significantly "trickle down" to The South: Africa is poorer than it was thirty years ago – despite Microsoft.

2 (c) (ii) Matrix of the inhuman

Despite these futurists' visions, David Hicks reminds us that, "*Popular* images of the future

in the West tend to be negative if not dystopian in nature" (my italics). (Hicks 1998: 220) They are the projected endpoints of our major fears, our nightmares shout out loud.

Dystopian futures saturate mainstream media. Themes thread through popular consciousness like a machine-woven tapestry. The theme of "metropolis", for instance, starts as a classic 1927 film of a dystopic vision of 2026, then continues as a track on the 1978 proto-techno Kraftwerk album, *The Man-Machine*; whilst the metropolis pictured in the 1999-2003 "Matrix" trilogy – which in itself can be seen as "discussion about the human as machine" (Van de Bijl 2004) through envisioning "a bleak world controlled by...machines". (Lazar 2004) – is even more profoundly disturbing. Dystopias are not only prevalent; the quality of their terror is deepening. Children's media are not spared the onslaught: witness the nihilism of so many video/computer games. Slaughter warns us that "so over-arching is ["the process of technology penetrating the symbolic and actual life-space of young people"] that it could be regarded as the greatest fait accompli of all time, overwhelming settled worlds of tradition, and, arguably, edging the planet toward catastrophe." (Slaughter 1999: 145) Indeed, an endpoint of "human as machine" is the future scenario archetype of Collapse. This spiralling down may be accompanied by a rigidifying of social structure – a form of Ideological Exclusionism. But commonly, the drama of dystopias tend to revolve around the exaggeration of qualities already entrenched within the Business As Usual paradigm – in essence serving as a reinforcement of the following dehumanising qualities too easily taken for granted:

- *Reductionism* – to the lowest common denominator, with no "vertical" dimensions of reality (Wilber 2000: 41)
  - *Objectification* – "Subjects" with interior awareness are reduced to "objects" with none.
  - *Behaviourism* – Only external behaviours are seen as real or worthy of attention.
  - *Quantification* – Only things which can be measured are given attention

despite the fact that the most significant things are mostly the hardest to measure.
  - *Fragmentation* – (Specialist) parts are seen as more important than the connections between or the overall picture.
- *Determinism* – Where our actions can be completely determined if we could ascertain all the relevant factors; where there is no free will.
- *Doing rather than being* – The metaphoric machine is in constant motion. And so are we. Workaholism in / consumerism out. Instead of "human beings", we are "human doings". States of consciousness other than "normal waking" are seen negatively: sleep is a necessary evil, dreaming is a distraction from productivity, meditation is a waste of time, and the use of mind-altering drugs is criminal.
- *Dissociation* between mind (ego) and body occurs when the body is seen as a machine rather than as an organism intimately connected to the ego. If our biology "fails", then we look to get it mended by the medical system – itself a product of the "human as machine" metaphor, where the patient is objectified as a body-machine, and "the physician is the master medical mechanic who cures disease and repairs dysfunction." (Simkins 1998) In a broader sense, the disembodied ego, dissociated from the body, has been instrumental in the post-Enlightenment development of science and technology (Wilber 1995: 375) – and hence the rise of the machine metaphor itself.

3. Ape [7]

"Despite the exterior gloss of our civilization, we are the same animals. Reading world headlines, you could argue that we haven't moved much beyond our time in the trees, eagerly clubbing the other ape for its bananas." (Patrick 2004)

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"Fox the fox / rat on the rat / you can ape the ape / I know about that / ... Shock the monkey to life!" (Gabriel 1978)

Biologically speaking, humans are primates. So it is little wonder that we have – most probably since time immemorial – compared ourselves to our nearest look-a-likes – the (other) apes – and seen ourselves in their image so much that, "Writers such as Rousseau (1755) and Lord Monboddo (1774) asserted that man and the higher apes (orang-utan or chimpanzee) were of the same species." (Asquith 1995) Conversely, it is precisely these shared features that have forced others to make particularly loud refutations of any similarities. And maybe, paradoxically, because of this apparent closeness, our metaphorical image of "the ape" differs quite markedly from the real thing. For instance, in a study looking at the similarities and differences between a young chimpanzee and a young human child brought up together in as similar a way as possible for nine months, it was discovered that the chimp had a significantly greater tendency to "kiss for forgiveness". (Kellogg 1967) Yet nowhere does this fact seem to inform our metaphorical image of the ape.

The potential richness of metaphor is also undoubtedly related to the fact that "Monkeys and apes have a privileged relation to nature and culture" – at least for westerners – as "simians occupy the border zones between those potent mythic poles." (Haraway 1990) Donna Haraway elaborates, "The commercial and scientific traffic in monkeys and apes is a traffic in meanings, as well as in animal lives." (Haraway 1990)

3 (a) Past

Unlike the machine metaphor which has resided predominantly in the modern industrial world, the ape metaphor – like apes themselves – has been more widespread. Both similarities and differences in resonances of cultural meaning for the ape can be observed through time and across the world. "In ancient Egypt, the baboon was sacred and stood for the dawn, for beginnings." (Pieterse 1995) In Indian mythology, "Hanuman the monkey god is the minister of Lord Rama" and "is known for his devotion

and cleverness", whilst in Chinese mythology, the Monkey Fairy, Sun hou-tzu, "accompanies a pilgrim to collect the Buddhist scriptures from India and after many trials achieves enlightenment." (Pieterse 1995) Similarly, in Japan, between 1200 and 1600, "representations of the monkey were in a mediating role between humans and gods." (Asquith 1995) Historically and currently, the monkey can be seen by the Japanese as symbolically cleansing "the human by shouldering our bad attributes", whilst overall, "the non-centrality of the simian in defining humanness is evident" in Japanese culture, thus providing a good example of a contrasting attitude to the West. (Asquith 1995)

In Europe, "Since antiquity, traditional views of apes have generally been condescending and unflattering." (Asquith 1995) Nevertheless, the Greeks and Romans felt apes to be close to us; Aristotle even exaggerated the human features of simian anatomy to draw out the similarities. But with the advent of Christianity, ape became enemy. In the "Physiologus", the basic compendium of Christian zoology, apes were said to represent the devil. The monkey was a sinner, a *figura diaboli*. (Corby 1995) A still negative but somewhat lighter metaphoric resonance also runs through European attitudes of this period – in seventeenth to nineteenth century Dutch art, for instance, apes represent folly and "inversion": how things should not be done. (Corby 1995) A positive attribute was found in the orang-utan during The Enlightenment, however: they symbolised nobility. But by the Victorian era, the metaphoric ape had become a monster again. The ape was not "civilised us": it was the fearsome "other". It was with this backdrop that Darwin's "Origin of Species" was published. Intimate connections were made between apes and the apish behaviour of early hominoids – "cavemen"; and between these and "lower" (non-white) races, who were regarded as white man's contemporary, savage ancestors, adding new racist flavour towards blacks in particular; all these were seen operating via the desperate struggle of the "survival of the fittest". But Darwin's controversial revelation also threatened to blur the important distinction

between apes and humans: *the other* threatened to become *the self*. Throughout the twentieth century, it could be argued that the other did indeed become the self, and the human was finally declared – with popular approval – "The Naked Ape". (Morris 1967)

3 (b) Present

So it appears Darwin won the argument: "The Devil under form of Baboon is our grandfather!" (Darwin 1995) Humans are just apes, albeit unusual ones. Animals with animal behaviours, animal motivations. As Desmond Morris observes, "The fundamental patterns of behaviour laid down in our early days as hunting apes still shine through all our affairs, no matter how lofty they may be." (Morris 1967) Morris also informs us that "the naked ape is the sexiest primate alive", and that we have the same aggressive instinct and behaviour of (other) apes. In "Naked Ape or Homo Sapiens", John Lewis and Bernard Towers critique Morris and the subsequent attitudes taken up in the media: "We are encouraged unceasingly to think ourselves excused, so far as anything reprehensible is concerned, on the grounds that we are only acting 'according to our nature' which is bestial. Our 'nature' is defined by reducing man to a plaything of whatever violent elements may be seen in some areas of the evolutionary process." (Lewis 1969) "Our survival depends on aggression and hence the propensity is ineradicable." Indeed, Neo-Darwinism is currently all the *rage*! "Survival of the fittest" symbolically implies that selfishness is always rewarded over altruism, whilst altruism is interpreted as disguised selfishness.

"Human as ape" evolutionary theory had further repercussions: psychoanalysis. "Freud thought of himself as a Darwinian." (Wright 1996: 315) He "was convinced that an impulsive ancestral apeman still roamed the depths of the human psyche in a quite literal sense." (Corby 1995) Humans were seen as fundamentally driven only by their "lower", ape-like urges, and that humanity is merely suppressing these urges lest there should be chaos. This psychological reductionism continues to underpin many forms of psychiatry and psychotherapy

that have since emerged.

3 (c) Futures

3 (c) (i) Positive potentials

Ideally, we could recognise (albeit minor) transformative possibilities in the "human as ape" metaphor. After all, we share much genetic information: so could we not think of ourselves as older siblings to the ape and welcome the experience of stepping into the required responsibility? The Great Ape Project supporting Rights Of Apes legislation is an important step in this direction. (www.greatapeproject.org)

Referring to aforementioned ancient meanings, the ape or monkey can represent devotion, sacred beginnings and mediation between humans and gods. Equally inspiring are the depths of human truths in the representation of Adam and Eve as ape-man and ape-woman in Alex Grey's painting, Adam and Eve. (Grey 2001) The potential of the ape metaphor can be seen, too, in the visceral performance art of Argentinean De La Guarda who take the *élan vital* of the human ape to new heights of artistry. The qualities of friendship can also be evoked – by Tarzan's sidekick, Cheetah, for instance. A profoundly ambiguous resonance accompanies the ape as the Jungian archetype of the "monkey see, monkey do" Trickster. But perhaps most significantly, and as exemplified by Jane Goodall's Gombe chimpanzees, (Asquith 1995) the ape metaphor can be seen underlying the romantic idealism of "the noble savage". In this way, "human as ape" can be seen to underpin those future scenarios of Environmental Sustainability that derive from the outlook of green fundamentalists, notably from the pre-agrarian-inspired "deep eco-masculinists" whose ideal metaphor might well be the orang-utan, a Malaysian term meaning "wild man of the woods". (Barnard 1995)

3 (c) (ii) Planet of the Naked Apes

But these are relatively marginal metaphoric resonances: our dominant myths and stories about the future are, as mentioned before, dystopian. Like the machine, the ape can be seen to underpin consequences of

Business As Usual scenarios. But whereas the machine can be seen to elaborate on the cold isolation of the disembodied ego's instrumental rationality ("ascend and exclude the lower" – Wilber's "Ego" characterisation) the ape underlies the counter side of the West's civilisational pathology ("descend and exclude the higher" – Wilber's "Eco" characterisation): regression from the noosphere to the biosphere, from the higher to the lower – with consequent rejection of rational thought, denial of free will and disregard for ethics. (Wilber 1995: 447) The taken-for-granted qualities that underlie regressive aspects of Business As Usual include:

- *The lower animal* – Focus is exclusively given to our "lower" selves – our "instincts" and "drives" – ignoring, denying or re-interpreting higher, ethical or spiritual aspirations and motivations. These lower aspects are popularly identified as sex and violence – as portrayed in The Naked Ape. One may also cite Freud's sexual libidino theory and his belief that men are instinctively aggressive. (Freud 1989) In this regard, Business As Usual can also be seen to specifically refer to the competitive aspect of business – the jostling for status, with its underlying aggression. The novel, Lord of the Flies, well entrenched in the Anglo-Saxon imagination, takes the idea further, suggesting that once civilized restraints are withdrawn, children – and by inference, adults – would revert to savage ruthlessness. But perhaps most iconically, the essence of the lower animal is best illustrated by the monstrous ape, King Kong, the brutal rapist. Variations on attitudes towards the lower animal include:
  - ○ *The Devil* – where the lower animal is interpreted as sinful, reprehensible, punishable. Dominant in Europe in the Middle Ages, threads of this attitude are still working their way out of the collective unconscious in liberal societies, whilst in other regions – notably, the USA and swathes of the

Islamic world, this attitude – via religious fundamentalism – is gaining strength. Projected forward, this trend can be seen to underpin various Ideological Exclusivism scenarios.
  - ○ *Clever but not wise* –[8] Here, the lower animal's qualities are observed but not harshly judged. "One interpretation of monkeys in Hindu tales is that they represent faculties... of the 'lower mind'." (Asquith 1995) In Buddhism, "monkey mind" also refers to the never-ending Business As Usual chattering mind of our everyday thoughts, compared with the calm mind of "successful" meditation.
- *Sub-human* – Those humans seen as apes are regarded as sub-human. "Comparisons between black Africans and apes [derogatory of both] date from long before the Enlightenment debates on the missing link." (Pieterse 1995) In seventeenth century Holland, there was "no clear distinction between monstrous beings of antiquity, the medieval Wild Man, *homo sylvestris* or *Waldmensch*, apes, and indigenous peoples." (Pieterse 1995) An analogous situation was evident in Islamic cultures. For instance, the 1001 Nights story "illustrates, in the crudest way possible, the secret fears associated with this cluster of 'undesirables', monkey, Negro and woman. Unbridled sexuality, inexhaustible sexual prowess, immorality, treacherousness." (Kruk 1995) The racist remnants of this metaphoric symbolism are still with us and can again fuel Ideological Exclusivism scenarios. Particularly symbolic here is the television series and film, Planet of the Apes, where – in the *next* millennium – the normal roles of humans and apes are reversed so that apes are the ruling species while humans are "treated like animals".

4. Dolphin[9]

"The cetaceans hold an important lesson for us. The lesson is not about whales and dolphins, but about ourselves." (Sagan 2000)

"Remember the shaman when he used to say: Man is the dream of the dolphin." (Enigma 1993)

That dolphin might be a metaphor for human is certainly unconventional; that "man is the dream of the dolphin" even more so. Moreover, who is the shaman? And why should one listen to him? Ashis Nandy answers, (Nandy 2000) "At a time when mass culture and the media dominate the world, the shaman tries to transcend manifest reality and the strait jacket of 'common sense'. This expression of defiance uses a language of transcendence or utopianism." Mass culture outcasts certain beings as Other. The shaman seeks to embrace the Other, to bring the Other into the Self, showing the rest of us we have connections beyond the visible, the obvious, the accessible, and that we can learn important truths from such embrace. Our thoughts and actions will be challenged, and our broadening perspective will change us – just as due consideration of our possible futures can challenge and change our present behaviour.

The dolphin can easily be seen as the Other. It lives in the sea, for a start. It looks more like a shark than a primate. But appearances can be deceptive. "13 of 22 dolphin chromosomes are exactly the same as human chromosomes." (Kumar 2003)

So, the Other is among us. Just as we need to embrace the future that we have othered through lack of foresight, and to embrace cultures that we have othered through lack of compassion, so we need to embrace our closest noospheric relatives, the cetaceans, that we have othered through lack of understanding or humility. Many of those who have looked upon a nearby dolphin are shocked to experience the returned gaze of an (albeit somewhat alien) self-aware, intelligent being displaying a returned similar interest in them. From his experience with dolphins, Scott Taylor remarks,

"They see right into us, and the love is palpable. Like Apollo's credo at the oracle of Delphi, these creatures urge us: 'Know Thy Self'." (Taylor 2003: xxxviii) As Ziauddin Sardar has unwittingly but veraciously articulated: "There is more to the Other than meets the eye." (Sardar 2000)

4 (a) Past

The oldest myth connecting humans to cetaceans very possibly comes from the indigenous Mirning people of southern Australia. (Burgoyne 2000) Known as the Whale People, they tell the tale of Jiderra, an enormous white whale who came to our planet from the star Sirius and who shines with the colours of the rainbow.[10]

The Dogon people of Saharan Mali also see themselves embedded within a complex cetacean mythology which they have maintained since their probable migration from the Mediterranean thousands of years ago. Curiously, they also tell of whales who came to Earth from Sirius. (Taylor 2003: 46)

Countless stories of dolphins rescuing people have inspired humanity certainly since Arion, son of the king of Lesbos, was immortalised as the Ancient Greek icon of The Boy on a Dolphin; whilst in India, according to Hindu scriptures, the first incarnation of Vishnu, the Saviour and Preserver of life, was in the form of a dolphin. (Taylor 2003: 28) Early Christians also used the image of a dolphin to symbolize Jesus. (Taylor 2003: 94) The Enlightenment, however, ironically meant the dark ages for cetaceans and the metaphoric dolphin when the West started to (literally) light up the night with lamps using oil from whales. Whaling became prevalent in the eighteenth and nineteenth centuries when dolphins were also killed for food, oil and skins. But it was the mechanised modern whaling era which caused the most devastation. (Samuels 2000) The metaphor was meat.

4 (b) Present

Notwithstanding the fact that "Dolphins are still killed by the thousands in the Eastern Tropical Pacific in the pursuit of tuna", (Taylor 2003) the situation for these and other

cetaceans has changed drastically since the cetacean scientist, John Lilly, announced to the world in 1961 that dolphins have minds and language, and television images of Greenpeace's inflatable dinghy – taking on the Goliath-sized Russian whaling fleet – flooded the public imagination in 1975, arousing collective environmental consciousness. Today, attitudes towards dolphins seem to fall into the two distinct and somewhat antipathetic camps of scientific behaviourism – which denounces Lilly's pioneering work – and the New Age; a situation, it would appear, in need of integration. Take the following, for example: Gavan Daws, in discussing correlations with biological intelligence, indicates that it is neither brain size nor the ratio of brain size to body size which matters, but instead, the absolute and relative-to-body size of – and quality of – neocortex. (Daws 1982) In this regard, the only animals which are in the same league as humans – or, indeed, which might surpass humans – are various cetacean species. This is a staggering fact, which one might think should herald as much collective wonder, respectful interest and take-up of *dolphin as a transformational metaphor* as the discovery of "intelligent aliens" from another planet. Yet instead, the issue has been marginalised by a scientific community whose behaviourist fundamentalism entrenches the unethical myth of human supremacy through a seemingly irrational refusal to engage a whistle of imagination, a leap of vision out of stagnant waters. Whilst, conversely, a sloppy sentimentalism can bedevil New Age accounts: it is behaviourally true that dolphins have been known to kill each other. This fact, however, should not stop the advocacy of the dolphin as a transformational metaphor, but rather be transcended and included as a paradoxical poignancy that dolphins may be even more human than we yet imagine! [11]

4 (c) Futures

4 (c) (i) Dionysus the dystopian dolphin

It is possible that the dolphin metaphor might be used unhelpfully. For instance, a possible "dolphin fundamentalism" might not acknowledge the unique possibilities and joys of being human. This might escalate into a rigid, anti-technology stance. Another possibility is that dolphins would be seen to symbolise shallow hedonism, living for the moment with no foresight or consideration for the future: a Dionysian dystopia.

4 (c) (ii) Human transformation

On balance though, the dolphin metaphor can act as a catalyst enabling scenarios of Spritual Transcendence, thus moving us beyond our aforementioned civilisational pathologies. It can be pictured, for instance, beneath Marcus Bussey's "critical spirituality", (Samuels 2000) David Loye's "evolution of higher mind", (Loye 1990) and many of Charles Birch's "Values for the 21st Century".[12] (Birch 2000) Indeed, "human as dolphin" can inspire a myriad of interweaving transformative qualities, values and visions, as indicated below. Dolphins are popularly seen to represent many positive human qualities. Possible truths in such dolphin mythology may well be able to lead us to depths of human wisdom through the use of metaphor and imagination.

Dolphins are well known, for instance, as playful creatures. Couldn't most of us do with taking our thoughts a little less seriously at times? Could we not venture into the playground (and playsea) of reality with a lighter spirit? Being able to freely play requires another delphic quality: creativity. In an experiment in Sea Life Park, Hawaii, a trainer let a dolphin know that no "repeats of known tricks or actions would elicit a fish reward" but only unique actions. The dolphin subsequently varied its actions, antics, movements, sounds, games seemingly endlessly for the entire experiment. (Taylor 2003: 196) Would we not benefit from prioritizing the encouragement of such spontaneous creativity? Edward de Bono valorizes Water logic. (De Bono 1992) Perhaps dolphins are already using it, going with the flow of the metaphoric Poetry of Being.

Warren Ziegler's "Spiritual Foundations for Envisioning the Future" (Ziegler 2000) include "Deep Listening", "Deep Questioning", "Deep Learning" and "Deep Imaging". So – as the Pope's Sumerian Fish-God mitre[13] perhaps reminds us: maybe we need to open ourselves

to the wisdom of those who come from "the deep" (Taylor 2003: 95) Also, as cetaceans live in a *three-dimensional* habitable space thousands of times larger than our own, maybe they are in a good position to help us transcend Wilber's "flatland"!

The urgent need to integrate not only the body of our fragmented society but our own being may be assisted by attending the remarkable bodymind integration that dolphins seem to exhibit. Unlike the average human, there seems to be a powerful and intimate correspondence between dolphin mind and body, perhaps analogous to Wilber's "centaur" archetype. (Wilber 1980) It can also be seen to correspond to the spiritual union between human body and mind that is a major desired outcome of yoga. Indeed, in "Homo Delphinus: The Dolphin within Man", (Mayol 2000) Jacques Mayol[14] makes explicit connections between the yogic breathing practice of apnoea and the dolphin's ability to hold its breath underwater. A further analogy would be our evolution towards "homo tantricus" if we took Marcus Bussey's advice and used "tantra as an episteme for future generations". (Bussey 1998) If that became a reality then we would live more within "the ecstatic joy of life" as dolphins seem to do: Bobbie Sandoz informs us that dolphins are "dedicated to happiness", (Sandoz 1999) a formulation cited by Edward de Bono in *The Happiness Purpose* (De Bono 1977) as being the best foundation for a new religion or "meta-system". Their passion is certainly suggested by an extraordinary experiment involving humans musically improvising with wild Orcas, the largest species of dolphin. The cetaceans were attracted primarily not to "compositional virtuosity" but were instead "highly attuned to [human] soloists and ensembles who play with *soulfulness*." (my italics) (Nollman 1999: 210)

We may well be inspired by such authenticity of feeling. Authenticity of thinking may also be facilitated by imagining the depth of vision that dolphins' x-ray-like sonar enables: the direct witnessing of emotional nuances and states of mind; feeling another's biochemistry. (Taylor 2003: 272) Dolphins symbolizing the characteristic of self-reflective thinking has cer-

tainly proved a successful strategy for Dudley Lynch and Paul Kordis in their popular corporate workbook separating the savvy cetacean from the "carp" and "shark". (Lynch 1990) As for intelligence, Douglas Adams reminds us, "...man had always assumed that he was more intelligent than dolphins because he had achieved so much – the wheel, New York, wars and so on – whilst all the dolphins had ever done was muck about in the water having a good time. But conversely, the dolphins had always believed that they were far more intelligent than man – for precisely the same reason." (Adams 1997)

Metaphoric resonance at the interpersonal level may be just as inspirational as at the intrapersonal. Dolphins' ethical behaviour towards humans in distress or the practice of co-operative fishing (Taylor 2003: 23) suggests a concern for species other than one's own[15] – surely an important quality to cultivate in these times of ecological destruction. Indeed, environmental sustainability itself may be seen as a delphic quality: cetaceans have been on this planet for tens of millions of years. If we combine this quality with the signifier of an embodied spirituality – as many visionary writers propose – then we might wish to embrace environmental sustainability within a Spiritual Transcendence scenario to avoid the trap of green fundamentalism. As Duane Elgin reminds us, "If we do no more than work for a sustainable future, then we are in danger of creating a world in which living is little more than 'only not dying'." (Elgin 2000) Sustainability is necessary but not sufficient. Implicitly evoking the dolphin metaphor, Lester Milbrath continues, "A sustainable society would encourage self-realisation as the key to a fulfilling life.... Keep a sense of humour: sing, dance, affirm love and be joyous in your oneness with the Earth." (Milbrath 2000) A scenario of dolphin-inspired rejoicing; realizing itself. Available now.

5. Conclusion

"The present is like a great hall with many doors. We collectively choose which door to go through." (Gerjuoy 2000)
"Discovering a compelling vision of our

evolutionary journey is vital." (Elgin 2000)

It is important that futures studies places due emphasis on facilitating the process of uncovering our present world-myths and metaphors to help us to more deeply imagine and elucidate our preferred futures. As "Metaphors touch 'the heart instead of reading the head'", (Inayatullah 2000) so it is hoped that this paper has touched the heart of this matter: relevance for humanity in these urgent times.

Do I not fashion this article according to the specified format and logical reasoning of a rational machine? Am I not using primate fingers to type these words? Does a transformative delphic spirit not flow through me as I write? All metaphors may have utility. Which do we choose? What contextual vision do we hold? We can view our home as a "Planet of the Apes" [16] and we can see us increasingly embedded within "The Matrix" of the machine: humans caught between the prevailing metaphors of dumb ape and clever machine, trapped by the weight of the past. But, as Inayatullah points out, it is important to recognise we are also pulled by our images of the future. What do we wish for? [17] As an increasing number of foresight practitioners are pointing out, what we want are more positive visions of the future: the human, the humane, the creative and self-transforming; an integral story of the continuing psycho-social evolution of humanity, the adventures of consciousness. We need visions inspired by the dolphin.

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Notes

1. A Hopi word, popularised by the film, *Koyaanisqatsi.*
2. One may discern that the machine metaphor has predominant resonance with males. Futures studies indicate that it is boys and men who envision technological utopias, as it is boys and men who are most involved with technology. For example, "Hicks and Holden's UK research found that 40% of boys were attracted to a future dominated by technology compared to only 19% of girls. Hutchinson also found that boys' images of the 'preferred future' fell largely into images of 'passive hope' where technology was the 'magical helper'." (Gidley 2005)
3. Occasional quotes from members of the internet public can be seen to indicate various generally held views.
4. Yet even if they were to – as Elisabet Sahtouris (2000) suggests in regard to the consciousness of the internet – this would still not affect our separate requirement and responsibility to regard and respect all beings, whether organic or not.
5. "Information processing" can be seen to be a function of the "information age", which in turn can be seen as an extension of the "industrial age", both being based on machines.
6. A more applicable scientific model might well be "brain as orchestra": "The process of thought is a symphony produced by the brain as a whole." (Lerner 1999)
7. As with the machine metaphor, the ape metaphor conflates most strongly with the male gender. It is men, not women, who are seen as apes. Male King Kong is an ape; he dominates, ravages and rapes female "non-apes".
8. The meaning of the Japanese proverb: the monkey is a human minus three pieces of hair. (Ohnuki-Tierney 1995)
9. It might be said that the dolphin represents feminine qualities. This would contrast with the former two metaphors, and – taking the long view – would be in line with the growing tidal wave of the feminine in the public domain. Certainly those delphic qualities regarding the intrinsic wellbeing of individuals can be seen in this light. However, both genders are drawn to dolphins; and "he" is projected onto them as much as "she". Furthermore, creativity and spiritual transformation are profoundly gender-non-specific. So perhaps dolphins can be seen to best represent the *androgynous* principle (embracing the best of both femininity and masculinity) and therefore also point the way for a radical healing between the human genders.

10. On cliff tops scattered with thousands of dolphin-shaped stones carved by ancestors of the current Mirning who lived *tens of thousands of years ago*, The Whale People sing to the southern right whales accompanying their song with click-sticks. (Taylor 2003: 20)

11. In light of this social fragmentation of understanding, information concerning the potential richness of cetacean qualities may best be gleaned from both scientific and non-scientific sources, and all may be consciously held within the depths of human dolphin mythology. As there has been little use yet of the dolphin as a human metaphor, the following section is necessarily exploratory.

12. Notably: Peace, Justice and Ecological Sustainability; Justice for Non-humans; The Need for a Deeper Ethic.

13. Ceremonial hat.

14. Who inspired and was portrayed in the film, *The Big Blue*.

15. And, in turn, suggests the potential fruitfulness of an exploration of correspondences between levels of moral development in humans (Kohlberg 1984; Miller 1999) and those in cetaceans.

16. Although, we should perhaps heed Heathcote Williams inaugurative comment in his epic poem, Whale Nation: "From space, the planet is blue. / From space, the planet is the territory / Not of humans, but of the whale." (Williams 1988)

17. Before we answer rashly, we might choose to heed Stephen Sondheim's cautioning: "Careful the wish you make...Wishes come true, Not free." (Sondheim 1989)

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