

PART 5

TRANSHUMANISM AND TWO CONTEMPORARY CULTURAL CRITIQUES of DEMOCRACY – CRITICAL THEORY and POST MODERNISM

INTRODUCTION

Transhumanism represents a significant concretisation of a specific mode of thinking about ourselves. It relies on contemporary scientific methods. Such empirical orientations assume we can dispense with conceptual frameworks derived from our intellectual traditions. These traditions regard words like 'mind', 'reason' and 'freedom' as hopeless descriptions of our mental and other capacities, but rather perhaps feelings of little substance until we find their scientific 'objective' meaning. What if we can't? That's my argument here. Humans are caught in this dilemma that knowledge won't ever be 'objective' and separate from the knower much as we should try. It is another aspect of the subject object division. However this section looks at reason on the grounds that Transhumanist's central goal is to augment human reason.

Quo Vadis democracy?

Democracy is predicated on the idea that humans (in post Enlightenment Western societies) can exercise reason, although some in the democratic tradition think self-interest sufficient 'rationality'. Self-interest requires reasoning also, if it is a very constrained view of reason. Transhumanists want to augment human reason but that assumes we understand what reason is. There is great contention about it. My purpose in this section is to discuss contemporary debates in the Humanities area about reason to see how Transhumanism might fit in or vice-versa.

By concrete reason in Transhumanism, I mean the assumption that we are reducible to knowable physical systems of anatomy, physiology, and biochemistry. How could it be otherwise, if human and machine are to seamlessly integrate? Of course, the Transhumanist advocates imagine the machine becomes the human, but it's only I think by reducing humans to machines. Yet, probably the opposite could well inspire Transhumanists. However not only that but also the question of rationality, including our general sense of a society's rational and learning capacities needs the attention of Transhumanists. The goal of a fuller life for post-humans in a cultural and other context should have full and necessary debate.

This Part engages that, with the attention to Critical Theory and Post-modernism.

There has been a prolonged debate about our rationality. We have thought this separated us from animals, from the 'uncivilised' even, since the early Greeks, but is that now dismissed? We witness constant attempts to describe every part of beliefs and bodies as available to scientific explanation. It should of course be so – the availability mostly – but are we still adding new images and understandings without answering with perfect clarity, what causes what, in mind or self, and even body. If you are a scientific and technological optimist then Transhumanism fits your beliefs, more readily. If you think there is some limit to this perfect knowledge, and thus democracy and the market, including the problem of who is the perfect knower then you recognise, some of the discussion here has value.

Enter stage left - Postmodernism

In cultural studies, Post-modernism disputes our rationality, and follows science in some respects in that manner. **I mean that rationality has no meaning outside science.** We are not so different from other life forms who (which) share goals and responsive reactions which are essentially rationalities. Therefore we now more commonly dispute the division between subject and object in our understanding in that particular way. Our rationality and thus science and economics have rendered us more like many objects and they more like us than we cared to think perhaps. What we call freedom is often shown to be acts that obey hidden laws, which, if obviously discoverable, are not always brought to reason's heel. Sexuality is the best known example these days, our search for identity another and more important if very connected at some stages of life and gendered in character. As well we already operate very closely with machines like computers which are at least extensions of some of our brains' abilities. These seem to speak to the end of an exclusively human reason, clearing the path to re-design and for human, animals and machines to coalesce, variously.

Transhumanism appears to intersect with broad cultural theory. Let's quickly look at what we mean by culture. I mean, the key images and thoughts and expressions of who we think we are as a society or subset of same. Therefore we have cultural investments, methods and orientations in education to foster this sense of society. Intellectual and research orientations are one stream, fashion and technology others, if we tend to see technology is neutral in cultural effect for obscure reasons. Perhaps technology is too important to engage our reflected thoughts about them in the society at large? Another part of this cultural image is of our learning or culture's perceived superiority and the way we approach these tasks of imparting and teaching. In a way I argue that Transhumanism slips under the door of widespread social reflection because it is a 'technology' which gives us 'progress' both crucial parts of the Enlightenment beyond criticism. It has an object status which is deceptive in that its intended application is us – subjects.

This neutral technology – technology is reason applied – is, at first blush, a bypassing of cultural or societal or political factors. Such bypassing creates the framework to allow Transhumanism not enter current societal and cultural debates outside the technological reconstitution of humans as post humans. These bypassed realities will all be solved by post-human intelligence or are irrelevant perhaps. We can upload new information and capacities to the brain. Yet such ideas destroy the separation of subject and object in the sense that learning is a social activity rooted in self and disputable cultural beliefs and so self is indispensable. Uploading really is like rote learning in this regard, while if just adding speed of computation, surely this is just machine-like extension.

Whatever people could do with uploaded information, it would not correlate to further experiential complexity which might round its application or, of course, pervert it. Or neither might apply and a third outcome arises. The shape of human complexity, not just the ramping up of computation would change. More speed, less empathy or can that be uploaded at the same time in the same complements? More speed, less room to integrate culture, insight and theory built on abstractions, such as those derived from post modernism. Transhumanism may be a machine's view of a human through an electronic probe even a 'manchine' so to speak. A machine designed by humans to circumvent its meaning through using 'neutral' technology.

To circumvent this problem of assuming a neutrality in Transhumanist technology, I want to examine if Transhumanism might share the platform with other major streams of criticism of our society.

Augmentation of course is progress and improvement not criticism! What really is the difference? They are all dissatisfactions with the present. I add a dimension to this by taking note of the fact that the two key directions of cultural critique, I chose Critical Theory and Post-modernism themselves markedly different and in disagreement. This difference lets me find closer connection between Transhumanism and one or other of these critiques. Post-modernism seems to have some cross-overs. I also indicate that how we learn traverses the relationship of Transhumanism and social movement or action learning theory and even Cognitivism which has had a strong influence upon current learning theories. In these cases the connections with Transhumanism appear very forced indeed.

The three cornered hat

If the Critical Theorists evoke proud humans touting their special rationality, in fact we know our enlightened humanists often, with prejudice to others practiced and intended, made of this a credo of brutal irrational oppression. Oppression of those deemed backward read 'not augmented'. If humanism so practiced, exudes a set of assumptions about the 'good life' including current democratic practice, then we see it with strong brush strokes of Social Darwinism, (white heterosexual male suprematism), the post modernists are suspicious of this hubris and its cultural underpinnings. Transhumanism shares such doubts but from a very different position.

The antithetical viewpoint represented by Critical Theory throws the failings of rational outcomes in democracies on archaic and co-emerging authoritarian structures still within it –the colonisation of rationality by money, and power – rather than an intrinsic human incapacity for self reflection, or, say, truthfulness and knowledge gathering, so the centrality of rationality remains and the belief in even greater democracy. Such are not so evidently Transhumanist concerns.

How will Transhumanism look in the light of cultural theory?

Critical theory

In Critical Theory, its advocates aim to embellish the democratic processes with greater participation and transparency citing vested interests as the greatest obstacles to a deeper and more rational democratic practice. Typically here the 18th century view of a type of universal rationality is excised as just one of those abstracts which doesn't make sense. However the concretisation of truth happens to the extent that it is defined by exchanges of words and gestures in certain qualified situations. This now underwrites a new participatory democratic inspiration. Limitations on this concretisation exist and there is no sense that the model is understood by science or maths or biochemistry or mechanics. In fact these are regarded as important but limited understandings. Abstraction and hermeneutics or interpretation by subjects is not things with which we can dispense with but rather are endemic. This tradition rejuvenates democracy, yet Transhumanism seems to have little compatibility which such an outlook.

Critical Theory privileges human intelligence in terms of its complexity, mindful of its social environment context and its many limitations rather than failings. The foundations of human intelligence's complexity are not only many layers of self reflection and adaption but also the capacity to form an extensive language, indicative of the separated and co joined realities of self, society and culture. I still hold Critical Theory's portrayal of human communication as inevitably implying elements of self, social and cultural reflection –later inclusive of science, as profound. Here, we humans are cast into meanings and cast meanings which are pivotal not tangential to our

being. Most would not find that difficult to accept, however the implicit assumption Critical Theorists maintain is that democracy and society are central points to realise their inevitable diversity.

There is the opportunity as knowledge grows and impediments recede – if they do - for mostly conscious recreations of meanings. Through it we share and disagree. We can by language realise human inter-subjectivity within limitations of self-knowledge and truthfulness as mutually communicated. However, if this understanding is thwarted by structures or objects such as economy, society and behaviours. I believe that's a working hypothesis which does not assume an idealised reason but a reason through shared relations, cast in exchanges about meaning, by subjects hearing and speaking in free environments (Habermas 1984).

When thwarted on result is the dominance of another type of thinking. Habermas suggests the purveyor of strategic thinking delivers influence to another through external means - money etc. However in communicative rationality actors are prepared to harmonise their plans only on the condition of an agreement about definitions of the situation and prospective outcomes. "[F]or the model of strategic action a structural description of action directed towards success is sufficient, whereas the model of action orientated towards reaching an understanding must specify the preconditions of an agreement" (Habermas 1990, 133).

What he means by that is that communication of understanding requires we are cognisant of the intention of truthfulness, and the absence of inducement or threat included in the situation. Transhumanist augmentation discourse occurs outside such thinking. Rather it relies on, not just on cognitive but even more fundamentally, on strategic and indeed instrumental thinking- ends as means thereby tending to ignore explicit critical consideration of values, ethics and morals. And further the demise of the Romantic tradition which houses the emotional and communal edges of humanism and post humanism, including the sense of unconscious processes is evidence that we have already gone too far down the path of allowing one type of reason strategic- to dominate. Transhumanism is peculiarly antiseptic ...ready for implant.

If hooking ourselves to machines assumes; that we are a biochemical-electrical riddle, atoms and molecules; that our mind is just a machine, that can be speeded up; and that any abstraction can be reduced to physical fact and material process, and the fact of the meaninglessness of non-scientific rationality, I think the implication of that is that we should elect the biggest and best super computers to rule us. And that is not so far from some ideas of Transhumanism such that democracy seems meaningless besides. This is the moment that Transhumanism seems least compatible.

Reason that is other than of reflective and inter-subjective types are preferenced in our dominant systems. In our society instrumental reason, rational process, procedure, subject object 'exchanges' predominate as in the central role of commercial transactions, and strategic planning. That's true, yet such rational exchanges like buying groceries are also at times and randomly surrounded by communicative exchanges. I know you also flirt with the sales assistant and he is obliged or enjoys reciprocation. He is not allowed to say: "Shut up you silly fool" which is probably appropriate from his point of view. In communicative exchanges my core individuality is opaque in part, but communicable in part too, in the right circumstances it becomes evident.

Reflection is not about speed of thought. It is aided by interactive reading .Uploading doesn't mean that even if it alters systemic behaviours. It's not about digesting and absorbing which insight

requires your attention. Thoughts entry into being is personal called 'taking it in, digesting it being cool with it etc'. For me I regret to say this is a very slow process. Part of subjectivity is a living changing awareness below such thought as mostly required in a supermarket transaction.

Transhumanism adopts a type of Scholasticism, transactional or spoon feeding model of knowledge where cognition or abstract thought is valorised and embodiment, incarnation or action is considered a secondary derivative theme. **NB:** Not knowledge but input and processing capacity. I might be more interested if it offered to slow down mental processes so I could think more deeply.

If Transhumanism's source is in psychological theory, then it's cognitivism. That so it's cognitivism of very shallow form, since in reality, cognitivism is about the experience of learning. It is not just amassing input output knowledge quickly. However, again the question of the object arises, if we do credit Transhumanism with being a variant of cognitivism which is a very long bow, then Searle, for one, has criticised it as a method of objectifying mind. As Wikipedia states:

Searle has developed two arguments, the first (well known through his Chinese room thought experiment) is the 'syntax is not semantics' argument—that a program is just syntax, while understanding requires semantics; therefore programs (hence cognitivism) cannot explain understanding, yet they encode a certain logic base, generally that of the status quo. Such an argument presupposes the controversial notion of a private language. The second, which Searle now prefers but is less well known, is his 'syntax is not physics' argument—nothing in the world is intrinsically a computer program except as applied, described or interpreted by an observer, so either everything can be described as a computer and trivially a brain can but then this does not explain any specific mental processes, or there is nothing intrinsic in a brain that makes it a computer (program). Detractors of this argument might point out that the same thing could be said about any concept-object relation, and that the brain-computer analogy can be a perfectly useful model if there is a strong isomorphism between the two. Both points, Searle claims, refute cognitivism¹.

It comes back to the fact that subjectivity implies modes of understanding to do with living human capacities if some are obscure and finally personal and so inaccessible, some more quantifiable and others more complex as between two persons attempting understanding that involves human or soft object meanings like culture or society and each other. Objects made by humans at this point except in the case of in vitro fertilisation and that is a prodigiously long bow in terms of being a human manufacture cannot enlighten us about a broad range of meanings only some of a computational nature.

Humanist insight is much in line with Searle. It is greatly nourished by Critical Theory which situates knowledge not just in science, but more complexly in conversation, where there are degrees of inter-subjectivity or shared personal knowledge and other communication through fields of disputed meanings and in conditions that need description. Its potential for finding out any truth is subject to social and other conditions. The peripheral or secondary room for technology in that seems very limited indeed. Yet this view in Critical Theory has its critics, if not importantly Transhumanist critics who are simply on a completely opposite track.

However the critics of rationality found in Post Modernism do suggest some routes of coalition between Transhumanism and cultural theory.

¹ [http://en.wikipedia.org/wiki/Cognitivism_\(psychology\)](http://en.wikipedia.org/wiki/Cognitivism_(psychology))

Nothing in post modernism suggests that technologies might replace this opacity in humans nor subvert it. Yet post modernists do rely on the concept of non-human intelligence or of below conscious process associated with the word cybernetics. Where we might have allowed homeostasis to describe many functions of the body, cybernetics is a managing intelligence process below consciousness. Its presence augurs well for machines reaching to the horizon of human intelligence and beyond, it seems.

I might add that environmentalists see intelligence in trees given their adaptability. If intelligence is a more organic rather than differentiated idea, not mysterious and specifically human, I think it poses a lesser impediment to the idea of perfect synergy between human and machine including biological machine. Let's see how Critical Theory and Transhumanism and Post modernism and Transhumanism stack up in terms of their futuribility.

The other movement in cultural studies beside humanism is to post-modernism. Here human reason meets much more suspicion. Humanism and rationalism are two intellectual paradigms criticised in post modernism. In it we find a minimisation of the capacity of the brain to initiate rational speech and behaviour. Yet that is used in post humanism to hold onto concerns of injustice, promoting these against the limitations in mainstream democratic and rationalist thinking. However at the same time post humanists doubt how close we ever come to knowing self and others. Therefore I include humanism's critics as another backlight to the place of Transhumanism in our culture. Does Transhumanism offer hope to the radical critics of some or all of the cultural foundations of democracy and more to the point vis-versa.

Post modernism

Postmodernism is the second of the critical threads of contemporary democracy against which we might assess Transhumanism. It includes an anti-humanism (which counteracts the idea of the autonomous rational citizen - the lowest common denominator of democracy). Yet apparently unrelated to Transhumanism, post modernism is often sustaining of a more sympathetic understanding of humans through representing outsiders and new or more ancient thoughts and thought processes against liberal democratic practices and assumptions of "enlightenment" superiority. These advocates no longer beg for inclusion with those endowed with humanist rationality and its idealised society, where they are denied invitation. They now consider suspect, the view that all will become clear through democratic practice. Humanism is flawed and concerns like universal moralities highly suspicious. Admittedly geneticists are finding broad evidence of hard wired morality but genetic determinism offers no major return to a view of a more conscious rationality in Humanism. Post modernist suspicions of irrationality triumph and are supported from biology and genetic theory discussed I subsequently in another section.

Rather than the clear humanist mind, located in an enlightened society, unconscious drivers found in language, logics, sexualities, and assumptions of progress have produced a society quite unworthy of special claims like privileging rationality. Cybernetics gave a further clue as to how to think about the human mind. Think of the mind not as giving orders but as receiving orders and managing their implications. It's an intelligent tool, adaptive to needs of underlying systems and to external influences. Of such processes, we are not conscious when speech occurs. Language may be a by product of these processes rather than evidence of reflection. This I think leaves us ripe for implant except that the implanters presumably have the same problem. Machines will better this?

Post-modernism disputes human rationality because of the limiting power of language, drives and needs i.e. human structures but less so those of society's political economic structures more so the way our bodies and brains and our culture organise our thoughts below the level of our awareness or thought. Mind loses its precious, elevated and unassailable position – rather speech is brain organ outflow controlled by structures in language and writing and self, although Althusser added ideology as impenetrable structure. Mind is process and obscure to her owner- Western ones just as much so, perhaps more so. Transhumanism may have more synergies there with post modernism. Mind is much more governed by cybernetic process in both. However the structuring power of language, memory, sexuality and logic are not the stuff of Transhumanism despite some common ancestry. This suggests the brain function is more cybernetic in Post-modernism, than rational as in the Enlightenment sense. Post-modernism in this regard deliberately borrowed from Cybernetics

The point is that many systems are self organising and so intelligent. Isn't human intelligence much the same as these others? The existence of artificial intelligence and cybernetics indicate this incursion of other systems into the once hallowed domain of claimed rationality.

Wikipedia again is helpful:

Cybernetics is a broad field of study, but the essential goal of cybernetics is to understand and define the functions and processes of systems that have goals and that participate in circular, causal chains that move from action to sensing to comparison with desired goal, and again to action. Studies in cybernetics provide a means for examining the design and function of any system, including social systems such as business management and organizational learning, including for the purpose of making them more efficient and effective.

One characteristic of the emerging new cybernetics considered in that time by Geyer and van der Zouwen, according to Bailey (1994), was "that it views information as constructed and reconstructed by an individual interacting with the environment. This provides an epistemological foundation of science, by viewing it as observer-dependent. Another characteristic of the new cybernetics is its contribution towards bridging the *micro-macro gap*. That is, it links the individual with the society". Another characteristic noted was the "transition from classical cybernetics to the new cybernetics [that] involves a transition from classical problems to new problems. These shifts in thinking involve, among others, (a) a change from emphasis on the system being steered to the system doing the steering, and the factor which guides the steering decisions.; and (b) new emphasis on communication between several systems which are trying to steer each other".

Cybernetics in biology is the study of cybernetic systems present in biological organisms, primarily focusing on how animals adapt to their environment, and how information in the form of genes and memes is passed from generation to generation. There is also a secondary focus on combining artificial systems with biological systems²

In its doubt about the autonomous, male, white citizen's superior rational capacity, Post –modernism lends itself to the suggestion we might redesign ourselves or so one could extrapolate - if freely. Rationality is a product of inputs and drives and the like, and not something mysterious and unique to humans. Most such advocates I suspect certainly would not endorse Transhumanism. Nevertheless they share some ground beginning with cybernetics.

² http://en.wikipedia.org/wiki/Cybernetics#Basic_cybernetics

So really similar or the same interior processes are at work for all humans and other living objects and machines, so programmed. The structure of language itself reflects a hidden code –hidden from us as we speak. In every language that humans form, there are meanings around family and groups. The language structures our thinking but reflects biological reality. Biology and other systems are cybernetic too. We humans have ‘software’ happening in the background and with language at the front of rationality, this challenges ideas of rationality. Language pre-structures thought (Levi Strauss). Yet we see differences of a profound type.

Living things and machines have self monitoring or cybernetic processing, however many things have equivalents. Are they then equal? In green ideology all living things share certain equalities. We can grant that in certain senses. They are all of value - humans, snakes and cats, including, it seems, to themselves. More important though is the question are they the same? And most central of all: are their lives the same? And it is not just comparing longevities but a sum of all these things from complex language, sharing of an interpersonal sort, creating new meanings, and capacity for cultural changes that makes a human life significantly different and more complex in its richness.

Modern societies further have moved along cognitive paths that are generally richer and as well in paths of self reflection and social models of greater liberty. Ironically these coincide with exacting an enormous cost to themselves and the planet. Humans are tragic beings. Does that define us at this time? It does but if doubt and tragedy are post modern too, we should not extinguish the possibility of learning and becoming more conscious about the influences that impact our rationality.

I see that the meaning that we should embrace is that like humanists and humanism, in finding some abilities to reflect free of total determination, we ourselves have discovered, even if we can't find the science for it. Yet this reason comes as humble rather than triumphant beings, cognisant of hubris and tragedy primarily, and cognisant of creating our dominant systems with irrational outcomes. It is also an evolving mind in the logical sense and that tells that a fixed point of knowledge will never occur and least likely when we unite with machines. That proposal seems to relate to ‘work logic’, strategic and computational.

Certainly the human mind operates at levels extremely difficult to bring to consciousness, but we seem to spend a lot of time trying to make it so. Still we are animals of sorts, feedback loops of sorts, carbon of sorts etc. Our special healing mechanisms include social innovation, personal communication and medical intervention. All but the latter - medical intervention- are communication processes inconsistent with Transhumanism intentions. The latter it shares with Transhumanism comprehensively in intention and extension. I think we need to think more about that as an apparently highly limited outlook.

Action learning in social movements and the recovery of experience

I do not advocate suffering or social movements for their own sake. However we often benefit from the product of the conscious action, novel social relationships within these, as well as new underlying values employed by social movements in the face of oppression and subjugation. Our memory of Martin Luther King reminds us of this. Further we seem sadly only to really recognise oppression when the oppressed rebel. We can't circumvent that learning process which comes often through experience and practical education. Could technology simulate that and the processes of its embodiment? We have nothing like that on the horizon.

Societies learn by conflict between oppressors and oppressed. I don't like saying that because it's fatalistic by the sound of it, but yet it's true historically. I think obviously if with some relativistic bias it is the ideas of the oppressed from which we learn new universalities, understandings and empathies and much less from the oppressor. The tension between classes exists in every society and often when the rights of the lower classes are demanded that society is better off through multiple criteria. Such emotional and moral demands are more in the vein of non-scientific thinking and non-strategic as they are not just about self, but self and others. This includes others who are also excluded and deserve better treatment. Social movements built around the environment are obvious cases as they propose inclusion of new empathy of included subjects like sentient animals. How do you replace that action learning process with something implanted or uploaded?

I find it hard to see that communicative view of intelligence as compatible with augmentation because language is rooted in experience, nurture, mind and communication. Machines may; speed me up, slow me down, make me strong, allow me to hear, or allow me or my partner have a blonde haired baby but these are object movements. They are not referenced to rules of communicative exchange involving emotion and mutual understanding. Of course there are elements of that and of course we need to have other types of reason operating.

Transhumanism if it aligns more with Post modernism does not undo discrimination associated with humanism trudging as it does through pools of historical blood of its own making and related pools of deep discrimination in humanist democratic practice. Transhumanist choices to augment are not an antidote to discrimination because this choice will operate within the discrimination paradigm. **Surely then the oppressor will need one sort of modification, and the oppressed, another.**

Or there are others of these not- so- savoury outcomes. Transhumanism implies society is denied processes of conflict and resolution except in the sense that humans might be at war with post humans. In this Terminator type scenario, its advocates deem technology neutral and augmentation oriented to a view of humanity inevitably like the oppressor or the "normal" – same thing. Surely such a view of augmentation is too shallow, concrete. (I don't want to look like Tom Cruise and certainly not think like him). That makes oppression augmented. Such is the outcome when we ignore the old distinctions between self and society, culture and technology as fail to understand social dynamics.

On all these threads hang the view that Transhumanism's siding with post modernism is not warranted. It is not clearly and undeniably a course to a more inclusive and intelligent understanding of society that might usher in a better world than the humanist derived one. If we accepted our rationality as a weakness requiring humility should we then be open to accepting technological or other biological help from other intelligences via implant or brain reconstruction? At least Post modernism inadvertently opened the way to that possibility. I think not because at the end point these other living creatures or machine are not the same subjects they have not had a life and not a human life in particular. So subjectivity and experience comes from life. What we view as rational is limited and discrete because of its attachment to life. It is not just superior although that does seem to be the case if not by much and not necessarily compared to all ancestors, even if and extinct one, but also indelibly different like the life of a fish, or of an elephant or Orang-utan is different.

CONCLUSION

None of these debates appear prevalent in the Transhumanist community.

Transhumanism is out on its own, its advocates have taken a technological fork from the idea of social progress and even its criticism in cultural or social or individual terms. If post modernism does build on a view of a more automaton nature in the human makeup, where drives and language are fixed structures, there is more a cross over with cybernetics to both traditions. However post modernism thinkers infuse their thoughts both with the obscure and receding nature of rationality, Transhumanism infused its post humans and humans with absolute transparency. In humanism, the implication is that the hubris of normalised population and advanced economy, rightfully burdens other cultures and minorities with unwarranted oppressive superiority. None of these are satisfactory places to find compatibilities.

In this part I have sought to demonstrate that the fit between Transhumanism and democracy and its cultural critics is extremely weak and often a complete mismatch. Explainable by concrete logic, empirical and positivistic, the idea of humans as machines restricts room for all that we can't explain. Such caution makes sense even as a perquisite of scientific investigation. Of course it is easy to say that is a straw man. Transhumanism argues these kinds of 'pedantic' divisions between subject and object will disappear. If they do disappear then it is the processes of deep democracy that should answer that question of disappearance and transcendence. I think it's never going to happen but you are saying "where have I heard that before'. In lieu of convincing me of this, I suggest we commit to a praxis process – **a process of deep democratic evaluation**. It is to this process we now turn.

I have stated that I hope for a resurgent and informed democratic practice that forces Transhumanism out from behind the naive neutrality that we afford technology. I believe Transhumanist ideas must become part of a public debate about our future, for instance as in our attempt in this issue of CRAFT.

For instance I remain as stated engaged in surfacing this issue in politics at the grass roots level and in publishing this magazine. I can only suggest you find a similar interest on your own terms, including for instance the discussion group associated with this issue. I add as before this engagement needs accounting in regard to energies and outcomes. We need not assume that this task, nor those of our co workers in this project will succeed or are even doing good, just because we are activists. That's a failure of activism without reflection. We must account our own behaviours and actions as well as those of the 'powers-that-be'. That is why democracy is the path.

Democracy needs great layers of citizenship involvement. We need still to respect the problems of security, defence and local wellbeing – the same old problems. However, the challenges of projects like Transhumanism mean we must involve ourselves in debate and action such as to also transform democracy. We need to get involved in articulating the need for a more robust and participatory democracy because of the scale of changes imagined.

Readers Note: References for all of Dr Jim Prentice's articles are included in one document under the tile 'references'.