

**Metaphors that facilitate Organisational Understanding:
Reaching for the New and How Machine and Organism Metaphors do not enable
Sustainable Development.**

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Structured Abstract

Purpose	The challenge in this paper is that the in using machine and organism metaphors a story is being perpetuated that dehumanises and de-prioritises us (humans) at the expense of the organisation (the abstract) which in turn becomes a prioritised subject. This is a result that is not consistent with the whole of humanity narrative and the moral way of acting that is entwined with the sustainable development concept. To develop this the paper reviews sustainable development through a metaphor lens, discusses the limitations of the machine and organism metaphors and brings forward results from prior research that illustrates how some organisational leaders are thinking in humanising ways and are a pointer towards new sources of sustainable development congruent metaphors.
Design/methodology/approach	As a discussion document the paper uses existing literature as well as bringing forward results from previous research.
Findings	The paper discusses how machine and organism metaphors dehumanise both ourselves (we are now parts) and our organisations by raising them as an abstract, yet separate subject.
Research Limitations/Implications	As a discussion document and a primer for future research this paper is limited in that its conclusions have not been tested.
Social Implications	If the key arguments in the paper are accepted, it offers a challenge to the use and appropriateness of machine and organism metaphors when discussing organisations.

Originality/value	<p>This paper is novel in that it reflects upon metaphors of organism and machine relative to the sustainable development concept and in turn reflects upon the metaphors associated with sustainable development. Further in bringing forward indicative empirical results it highlights a challenge to conventional organisational language.</p>
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"In most cases, what is at issue is not the truth or falsity of a metaphor but the perceptions and inferences that follow from it and the actions that are sanctioned by it. In all aspects of life, not just in politics or love, we define our reality in terms of metaphors and then proceed to act on the basis of those metaphors. We draw inferences, set goals, make commitments and execute plans, all on the basis of how we in part structure our experience, consciously and unconsciously, by means of metaphor" (Lakoff & Johnson 1980, p. 158)

1- Introduction

This paper is built around the argument that the machine and organism metaphors that we (humans, with a particular emphasis on organisational scholars) commonly use in our understanding of organisational phenomena are not enabling of sustainable development (for example see; Audebrand, 2010; Cornelissen, et al., 2008; Hatch, 2011; Inns, 2002; Kendall & Kendall, 1993; Oswick et al., 2002; Morgan, 2006). This is because metaphors impact our perceptions and actions and in turn become self-fulfilling prophecies for how we ascribe the functioning of reality (for example see; Cornelissen, 2002, 2004, 2005; Lakoff & Johnson, 1980; Lakoff & Turner, 1987; Tsoukas, 1991, 1993). Consequently when we ascribe the metaphors of machine and organism to organisational phenomena we engage in the dehumanisation of some members of the organisation, viewing them as component parts whose function is to serve the organisation's requirements rather than viewing them as full human beings whose value is greater than their utility within the context of the organisation. At the same time when we use the organism and machine metaphors we promote the organisation as the locus of concern and confer it with a status of being a separate subject. In so doing we engage in orgocentrism the defining of issues in relation to the organisation and its continued operation (Egri & Pinfield, 1999; Hatch, 2011; Tinker, 1986) [i]. The impact of these two outcomes are that the use of the metaphors moves us away from the whole of humanity story that is inherent in the sustainable development agenda; sustainable development is not about the ongoing survival and sustainability of organisations, nor is it about the reduction of some humans to functional units that serve an organisation and thus the sustainability of one set of individuals over another. Consequently if organisations are to be used as key actors in enabling sustainable development, then new metaphors need to be perpetuated, lest the focus of sustainability becomes organisations and in turn some people, rather than focus being the sustainability of the whole of humanity.

Given that metaphors provide the defining thread through this paper, the first section outlines some of the basic theory of metaphors. Following this the concept of sustainable development is discussed and perhaps unusually, this discussion uses metaphor to elucidate the concept. Then indicative results are presented from previous research conducted (by the author) with the leaders of environmentally focused and or sustainability orientated organisations, as evidenced by their mission statements. Although this research was not focused on metaphors and the metaphors the individuals ascribed to understanding their organisations, the commentary brought forward indicates that the individuals take an innately human view of their organisations and do not simply reduce the organisational participants to functional components or objective and thus dehumanising categories. In this regard, the research findings provide a leaping off point from which to consider the rest of the argument regarding organism and machine metaphors. The limitations of these metaphors relative to their enabling of sustainable development are then brought forward with the paper closing with conclusions and considerations for future research.

Prior to reading the subsequent sections, it should be noted that the argument that metaphors create ideological distortions and new metaphors are required to perpetuate sustainable outcomes has been discussed previously (for example see; Audebrand, 2010; Cummings & Thanem, 2002; Mutch, 2006; Romaine, 1996; Tinker, 1986, Tsoukas, 1993). However the contribution this paper makes is twofold. First the paper builds upon previous arguments but takes them further by outlining the challenge of not making the organisation the focus when using metaphors. Second findings from prior research are brought forward. Findings that illustrate how a particular set of interviewees discuss their organisations in a humanising way and in turn do not separate the organisation from context and thus do not engage in orgocentrism. Consequently, the findings point towards new areas and possibilities for research that may enable the uncovering of new metaphors to use for organisational understanding that are also complicit with enabling sustainable development. As such these results provide an interesting challenge to scholars regarding identifying, testing and propagating new metaphors that may enable sustainable outcomes by ensuring the focus remains on humans and not organisations where humans are merely considered as functional components. In sum the value of this paper is not in what it proves but rather what it suggests (Fiol, 1989).

2- Metaphors

A comprehensive review of the literature and theory regarding metaphors is beyond the scope of this paper; however this section attempts to elucidate some basics. Metaphors populate and saturate our language (Cornelissen, 2002, 2004, 2005; Morgan, 2006; Oswick, et al., 2002; Tsoukas, 1991, 1993) and they are principally a way of conceiving of one thing in terms of another (Lakoff & Johnson, 1980; Lakoff & Turner, 1989). In this way they are used to enable and enhance our understandings by referring to "something unfamiliar in terms of something familiar" (Inns, 2002:325). Some simple every day applications of metaphors include the metaphor of a brain when discussing the processing of information, the metaphor that time is a currency that can be borrowed, spent or saved or the gaming metaphor relative to our honesty when individuals say to each other "I will lay all my cards on the table" (Morgan, 1986; Romaine, 1996).

The use of metaphors in language has been likened to viruses "which infect different discursive contexts and spread meanings" (Akerman, 2003: 432 citing in support Maasen, 1994; Maasen & Weingaart, 1995, 1997). In this regard it has been argued that metaphors can "guide our perceptions and interpretations...and help us formulate our visions and goals" (Cornelissen, et al., 2008: 8) thus they potentially allow us to connect our experiences with our imaginations and vice versa (Cornelissen, et al., 2008; Inns, 2002). Consequently metaphors are entwined in the relation between thought, meaning, the guidance of perception and action (Burr, 2003). Thus metaphors are not simply linguistic devices used to transfer understanding, with understanding being a separate category to action, rather metaphors also transfer an implied mode of behaviour (Tsoukas, 1991, 1993). A point emphasised by Tsoukas (1991) who outlines that we engage in continual experience and then via language conceptualise our experiences and transmit them to others. As such "language is both descriptive and constitutive of reality" (Tsoukas, 1991:568) and consequently metaphors are discursive devices that make social reality more "palpable and comprehensible" (Tsoukas, 1991:571) but also reflect and influence actions (Burr, 2003; Lakoff & Johnson, 1980; Porac, et al., 2011; Tsoukas, 1991, 1993).

This influence on action makes the use of metaphors fraught with difficulty. As indicated previously metaphors involve the "transfer of information from a relatively familiar domain (variously referred to as source or base domain, or vehicle) to a new and relatively unknown domain (usually referred to as target domain or topic)" (Tsoukas, 1991:568 citing Johnson-Laird, 1989; Ortony, 1975; Vosniadou & Ortony, 1989 in support; also see, von Gyczy, 2003). Thus metaphors allow inferences to be made about those things we may know little about, on the basis of that which we know about

something else (Tsoukas, 1991, 1993). Consequently while metaphors can be a short hand towards guiding actions and constituting reality at the same time they can hide, obscure or realise distortions that are not necessarily congruent with our understandings in the movement and application of principles from the base domain to target domain. For example when applying the concept of the product lifecycle notions that products are born, grow, mature and die are brought forward. Further the very use of the metaphor is to enable the bringing forward of biological concepts into a new domain to facilitate thinking and action regarding plans for the product. Clearly, considering a product as having a lifecycle with phases of birth, growth, maturity and death is absurd, yet through the use of such language the metaphor constitutes reality with products being a form of life, in their behaviour. Thus there is a trap that the product may be given a different ontological status to that which we would normally ascribe. In this regard metaphors should perhaps carry a warning "user beware".

Metaphors are commonly used in organisational studies, particularly with relevance to the understanding of organisations (for example see; Cornelissen, 2002; 2004; Cornelissen, et al., 2008; Cummings & Thanem, 2002; Hutch, 2011; Morgan, 2006). They are viewed as encouraging different ways of thinking that enable individuals to "focus upon, explain and influence different aspects of complex organisational phenomena" (Tsoukas, 1991:566 citing Morgan, 1980, 1983, 1986, 1988a,b, 1989 and Weick, 1979 in support). In this regard metaphors are one of the primary ways of understanding organisations. However, their core difficulty is that they only offer a partial view and thus they do not enable a complete understanding (Cornelissen, et al., 2008; Inns, 2002; Morgan, 2006; Oswick, et al., 2002; Tsoukas, 1991, 1993). That metaphors offer an incomplete view is not a new argument and there is little anyone can do to counter the partiality as in the absence of an "Olympian high ground from which organisational phenomena... [can]... be observed...our theoretical schemata...are anthropologically condemned to be partial and one sided" (Tsoukas, 1993:335).

Nevertheless, while the understanding that there is an absence of any ground from which to observe is the condemned fate of those who have moved beyond modernistic understandings the charge still falls that if we use metaphors to facilitate organisational understanding then we need to be clear of the potential advantages and disadvantages of such metaphors. For example while we may use the metaphors of organism and machine because of their apparent conceptual simplicity, are we aware of the enactments we perpetuate when we use such metaphors? Or are we aware that we may perpetuate a notion that some of our fellow humans are merely functional components that are useful in so much as they enable the continued operation of the organisation

(for example see; Cornelissen & Kofouros, 2008; Egri & Pinfield, 1999; Hatch, 2011; McAuley, et al., 2007; Morgan, 2006; Shafritz & Ott, 1992)? Are we aware that when we discuss the organisation as an organism, we may perpetuate a notion that and act as if the organisation is a form of life that needs to survive (Cummings & Thanem, 2002; Hatch, 2011; Tinker, 1986; Tsoukas, 1991)? [ii] In so doing how important a form of life is it, more important than the individuals who are merely functional components or less so? While somebody might say when presented with these questions that they would never fall into these traps when using metaphors, apart from their contesting of the accepted theory regarding metaphors, surely it would be wise of us to perpetuate metaphors that do not have these hidden dangers. The challenge remains as to what is an appropriate metaphor(s) to enhance organisational understanding that is complicit with sustainable development.

3- Sustainable Development

Environmental and social degradation has been widely discussed and documented by scholars (for example see: Daly, 1996; Ekins, 2000; Gray, et al., 1993; Hawken, et al., 2000; Lovelock, 2006; Meadows, et al., 2005; Weisacker, et al., 1998) as well as agencies and institutions (for example see: The World Wildlife Fund (WWF) Living Planet report, 2006; The Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report, 2007; the United Nations Millennium Ecosystem Assessment Report, 2005 and the Worldwatch Institute, 2004). This literature posits that environmental and social degradation has roots in society and its economic institutions, of which organisations are key actors.

The overarching response to the degradation has been the call for the pursuit [iii] of sustainability [iv] with the aim of sustainable development. Sustainable development can be defined as "development which meets the needs of the present without compromising the ability of future generations to meet their own needs" (The World Commission on Environment and Development: The Brundtland Commission 1987, p. 8). While critiques can be levelled at this definition (for example see Banerjee, 2003) it is generally accepted that sustainable development is an idea of general usefulness that is normative in its conception (for example see; Blewitt 2008; Brych, et al., 2007; Gladwin, et al., 1995). However a difficulty with the concept of sustainable development is that it perhaps challenges human ideas of our standing relative to the earth. Through the lens of metaphor, a difficulty with accepting sustainable development is that it at the least challenges and at the extreme inverts the "The Great Chain" (Lakoff and Turner 1987, p.

167) [v] metaphor that arguably goes to the root of our modern understandings of our place on the planet. Whereby there are humans and everything else and humans are a special, distinct and separate Cartesian category that is at the top of an apex (Romaine, 1996). To illustrate "the Great Chain is a scale of forms of being – human, animal, plant, inanimate object – and consequently a scale of the properties that characterise forms of being – reason, instinctual behaviour, biological function, physical attributes, and so on" (Lakoff and Turner 1987, p. 167). In this regard the Great Chain metaphor implies dominance by humans, whereas the sustainable development debate and the wider ecology movement manipulate and at the extreme invert [vi] this dominance and outline "the dependence of all forms of living beings on the physical environment and our dependence on the food chain and on the existence of biological diversity" (Lakoff and Turner 1987, p. 212). This manipulation of the Great Chain metaphor brings forward another metaphor regarding how we consider the earth and our place relative to it. Rather than the earth being an object that we dominate we are now moved to view the earth as a life support system or in other terminology a spaceship (for example see; Audebrand, 2010; Romaine, 1996). In so doing where we were once dominators we are now moved towards stewardship and thus our elevated position of domination and the special status we allow ourselves with that elevated and hierarchical conception as per the Great Chain metaphor, is humbled.

In viewing the earth as a life support system and taking on the role of stewards what is reinforced is our entwinement with all that surrounds us rather than separateness and as such our conventional notions of boundaries are dissolved. Consequently we are manoeuvred into taking on an imperative of responsibility (for example see; Blewitt, 2008; Dunlap & Van Liere, 2008; Egri & Pinfield, 1999; Gladwin, et al., 1995; Jonas, 1984). As if we don't take on this responsibility and we consider ourselves as separate and the only factor of consideration, we are likely to undermine ourselves given the entwinement and interconnectedness of all the constituents of the earth. This recognition of entwinement and responsibility moves us towards an expanded notion of self interest that is beyond narrow anthropocentric concerns where only humans and their economic interests matter (Gladwin, et al, 1995; Hoffman & Sandelands, 2005). Thus sustainable development re-patterns our understandings away from linearity and human dominated hierarchies towards understandings of us being stewards who are entwined in a system that we are both part of but also responsible for.

To explain further and without wishing to stretch the use of metaphors, the entwinement, life support and stewardship metaphors puts humans in the role of doctor, patient and disease all at the same time. For example, with regard to climate change we

are implicated as the protagonists that have caused the issue with our requirements for energy (disease), we have implicated ourselves as trying to resolve the issue (doctor) and we have to accept the challenge of moving away from fossil fuels to new energy supplies (patient). Thus we are charged with roles and actions; prescribing cures (doctor), accepting those cures (patient) and perhaps fighting those cures but ultimately reproaching ourselves without reversion (disease), a difficult task given the multiplicity of roles, the entwinement and the lack of separation. While this caricature reinforces that sustainable development is a multidimensional concept that is difficult to access directly (Audebrand, 2010), not least because it does not represent, in the manner a modernist theory might a "form of stable phenomena existing outside of [its] representation" (Calas & Smircich, 1999:663). What the caricature also reinforces is that we humans are stewards of ourselves and as such if we use metaphors which dehumanise or objectify any of us in our relationships with ourselves we are disabling ourselves from realising sustainable development, particularly as sustainable development is not a narrative for some people, rather it is a narrative written for all people.

In sum the sustainable development agenda asks or at the least implies that we reconsider our purpose and in turn the purpose of our organisations. In this regard, while the life support and stewardship metaphors are of interest, the key, as arguably with any metaphor, is the action it subsequently implies and or prescribes and in so doing the reality that is constituted (for example see; Burr, 2003; Ford & Ford, 1995; Lakoff & Johnson, 1980; Porac, et al., 2011; Tsoukas, 1991; 1993). The normative underpinnings of sustainable development can result in it being considered a "vision of the future" (Brych, et al., 2007: 29) with its pursuit "belonging to the canon of ethical concepts such as courage, prudence and temperance" (Gomis, et al., 2011:172), in short it can be considered as a "moral way of acting" (ibid: 176) where the future will be healthier (Blewitt, 2008) and so more life affirming than the present. Thus within these concepts of life support and human stewardship a concern arises as to what might be an appropriate metaphor to apply to understanding organisational phenomena. As metaphors that result in us dehumanising and objectifying ourselves and are not complicit with a moral way of acting for all of humanity are not enabling of sustainable development.

To close this section, given sustainable development has been discussed through the explicit use of metaphor there is perhaps credence to Hardin's comment that while "no generation has viewed the problem of the survival of the human species as seriously as we have. Inevitably, we have entered this world of concern through the door of metaphor" (Romaine 1996, p. 192 citing Hardin 1974, p. 568).

3 – Indicative Results from Previous Research

Recent research by the author on the views of leaders (for example; founders, chief executives and managing directors) of organisations that were environmentally focused yielded commentary that offers potential insights into how the interviewees consider their organisation in a humanising way, a way that does not reduce or objectify participants. While this research was not focused on metaphors and their use by the research subjects, none the less the interviewees' commentary offers a potential platform for future research and a point of reflection when considering the later section of this paper that discusses machine and organism metaphors [vii].

By way of overview, between August 2007 and January 2008 semi-structured interviews were conducted with the 'leaders' (for example, founders, chief executives and managing directors) of twenty three organisations with environmental missions based in the UK and the USA in order to gather their views on a variety of subjects (for an overview of the organisations interviewed see Appendix, Table I).

An example of a mission statement for one of the organisations is outlined below:

- *'Triodos Bank finances companies, institutions and projects that add cultural value and benefit people and the environment, with the support of depositors and investors who want to encourage corporate social responsibility and a sustainable society. Our mission is;*
 - *To help create a society that promotes people's quality of life and that has human dignity at its core.*
 - *To enable individuals, institutions and businesses to use money more consciously in ways that benefit people and the environment, and promote sustainable development.*
 - *To offer our customers sustainable financial products and high quality service.'* (Triodos Bank, www.triodos.co.uk)

As indicated this research was not focused upon gaining an understanding of the metaphors these individuals apply to their organisations. However, given that metaphors populate and saturate our language (Mutch, 2006), as might be expected, metaphors were evident.

When describing their organisations, the interviewees discussed how their organisations were simply tools, whereby they were “using the tools of business to solve social and environmental problems” (belu, Founder) and or the organisation is a “tool to deliver on social and environmental change” (Triodos Bank, Managing Director).

Alongside these conceptions interviewees were also keen to stress the humanity of their organisations. For example discussing how the organisation was “environmentalists doing business, not a business doing the environment” (Company B, Founder); how the business was not separate from themselves rather it’s “just a whole way of living” (Green Building Store, Co-founder) that required “love and attention” (BioRegional, Co-founder) and that distinctions between any realm were artificial: “I don’t see a distinction ... economic, social and the environmental, yeah ... it seems artificial to me, it’s not real” (Company B, Founder). Taking this further one interviewee highlighted how with regards to consumers “I prefer to call them customers than consumers. They just sound like stupid bovine grazers when you call them consumers don’t they?” (Company B, Founder). Likewise another interviewee outlined that the challenge their organisation faced was “How do we design, how can we design every moment for one hundred percent of the wellbeing of all humanity?” (seventh GENERATION, Director of Corporate Consciousness).

What the comments indicate are that the interviewees view their organisations as tools, in this regard they are discussing their organisations in a manner that is closely related to the etymology of the word organisation (Hatch, 2011, Morgan, 2006). Furthermore the interviewees revealed an ambivalence regarding the ongoing operation of their organisation, provided wider societal and environmental changes had been realised. For example, as one interviewee commented - “if we packed up tomorrow it would have been a success, because we did something different,... success is also getting the message out there”(Green Building Store, Co-founder). This ambivalence toward the organisation with a focus on wider changes indicates that the interviewees are not engaging in orgocentric thinking, whereby the organisation and its continued operation is the locus of concern and is paramount.

The commentary also indicates that humans are not objectified, for example the commentary that the organisation is ‘environmentalists doing business’ reinforces humans as subject with business as the object or process. Thus this simple comment reinforces a primary focus on humans rather than an abstract organisation. Similarly the discussion that the organisation is a part of a ‘whole way of living’ that requires ‘love and attention’ reinforces that there is no separation, at least for these interviewees, between

who they are as humans and their operating with and in the organisation. A point graphically illustrated by the quotes outlining that any distinction between economic, social and ecological is 'artificial' and that the challenge is to make decisions for 'one hundred percent of the wellbeing of all humanity'. This lack of separation is a key distinction, as through their commentary and metaphors of customers rather than bovine grazing consumers, the implication is that these individuals are not likely to reduce other humans to being purely functional units whose utility is measured via their ability to ensure the continued operation of the organisation. Rather it implies that they view all individuals as whole humans that have value beyond their utility to the organisation. As such the interviewees are not dehumanising their organisations in the manner that, as is discussed below, the application of organism or machine metaphors does. Indeed the general absence of metaphors of machine or organism in the interviewees commentary is telling with only two out of twenty three interviewees even mentioning a likening of their organisation to an organism and one of those (Ecover, Concept Manager) also emphasising at the same time the role of human consciousness in considering the organisation's operations. Thus what comes forward from the research is a narrative of inherent humanity whereby the organisation is a tool being used to serve a particular purpose regarding social and environmental change and that once that purpose is served there is a general ambivalence regarding the continued operation of the organisation. In this regard, the interviewees do not display orgocentrism, rather their commentary reinforces a human narrative with humans as the subject, as opposed to an organisational narrative with organisations as the subject.

In sum, the interviewees' commentary reveals that these types of organisations maybe useful sites to begin the exploration for metaphors that enable an understanding of organisational phenomena that is congruent with sustainable development and not dehumanising of organisational participants and promoting of orgocentrism.

4 - Machine and Organism Metaphors

All theories of an organisation "are based on implicit images or metaphors that lead us to see, understand, and manage organisations in distinctive yet partial ways" (Morgan, 2006:4). Numerous metaphors are evident in the literature for example organisations as: coalitions of individuals contracting with each other (Polanyi, 2001; Shafritz & Ott, 1992 citing Cyert & March, 1959), verbal systems (Kornberger, et al., 2006 citing Hazen, 1993), psychic prisons, political systems and instruments of domination (Morgan, 2006),

to name a few. However, it is argued that organisational theory is dominated by perspectives that view organisations as machines or organisms (for example see: Audebrand, 2010; Cummings & Thanem, 2002; Egri & Pinfield, 1999; Hatch, 2011; Kendall & Kendall, 1993; McAuley, et al., 2007; Morgan, 2006; Oswick, et al., 2002; Shafritz & Ott, 1992; Spence & Thomson, 2009). Each of these two metaphors like all metaphors are “the tip of a submerged model” (Cornelissen, 2002: 260 citing Black, 1977/1993) that carries with it (metaphorically) a weight of symbolism and associations which as will be highlighted are problematic within the wider pursuit of sustainable development.

The machine metaphor draws upon 19th century understanding of energetic and classical mechanics and Taylor’s formulation of scientific management (Cornelissen & Kafouros, 2008; Hatch, 2011). The implications of the machine metaphor are that organisations act in accordance with rational economic principles, have a hierarchy in organisational structure, the goal is to increase wealth, the functions and people within and of organisations are considered as mechanical parts, the failure of a function is the failure or malfunctioning of a part, the pursuit of efficiency is paramount, the organisation is essentially closed and the external environment is ignored (Cornelissen & Kofouros, 2008; McAuley, et al., 2007; Morgan, 2006; Shafritz & Ott, 1992; Tinker, 1986). If it is accepted that metaphors influence both perception and ultimately action (for example see; Burr, 2003; Ford & Ford, 1995; Tsoukas, 1991, 1993), then our thinking regarding organisations via the use of the machine metaphor is infused with a particular mode. This mode perpetuates othering and dehumanisation. First the metaphor asks us to consider and act as if humans within the organisation are only functional components whose utility is only extended in so far as they enable the continued operation of the organisation. As such if the components are defective, those parts must be replaced. At the same time, with the machine metaphor’s implications of hierarchy it creates a form of separation between the users of the metaphor and the others to whom it is being applied (the functional components). Consequently, the metaphor not only separates it also fails to consider the whole human (beyond their function – the human is a cog in the machine or a form of resource that has capabilities that need to be exploited for the good of the organisation) and thus it fails to enable sustainable development and the whole human and whole of humanity narrative that is implicit in that concept. Second the metaphor in making the user create a focus on the abstract that is the organisation arguably perpetuates a synecdoche whereby the organisation becomes the focus of concern. Thus rather than a particular set of individuals who are applying the metaphor being the focus, with their concerns being paramount; through their application of the metaphor, the synecdoche moves the ‘organisation’ to being the subject and thus

dehumanises both the users of the metaphor but also reinforces the dehumanisation of those operating within the organisation. In this regard the metaphor perpetuates individuals taking an orgocentric view of the world where the concern is the continued operation of the organisation. Thus the narrative perpetuated is an organisational narrative not a human narrative and through the use of the metaphor we can trap ourselves into defining all relative to the organisation as the subject rather than the human as subject – a result not complicit with the sustainable development concept.

In short a metaphor that perpetuates a mode where the organisation is the locus of concern and the human members of an organisation are mechanical parts facilitates a form of slipperiness that dehumanises both ourselves (we are now parts) and our social constructions (organisations). It separates us from our organisations and thus detracts from our common definitions of organisations [ix] that reinforce the central role of humans. In turn this slipperiness perpetuates an epistemology that an organisation is a separate subject and as such an epistemology that an organisation and environment are separate categories (Gladwin, et al., 1995). Thus the machine metaphor either wittingly or unwittingly perpetuates an epistemology that separates, deemphasises and dehumanises us while simultaneously emphasising organisations - a result that is not complicit with sustainable development.

Notwithstanding these issues, a positive that could be offered regarding the machine metaphor is that it is simple to convey and its enabling of a focus on efficiency is potentially useful, particularly as eco-efficiency is a key requirement within the pursuit of sustainable development (for example; Barter & Bebbington, 2009; Hawken, et al, 1999; Weisacker, et al., 1998). Nevertheless a metaphor with 19th century roots and associated 19th century baggage of social class, conflict and consciousness is not a useful metaphor for the 21st century and the pursuit of sustainable development.

Similar to the machine metaphor [viii], the organism metaphor as applied to organisational understanding faces numerous difficulties, not least the organism is often not specified, for example is the organism a rat in a race, a rat in a maze, a person or a single cell amoeba (Tsoukas, 1991) any of which imply different actions and considerations. Notwithstanding this lack of assumptive accuracy one of the primary difficulties with the organism metaphor is that it implies the organisation is a form of life separate to its human constituents and it needs to be considered alongside other forms of life in terms of survival, growth, decay, death, population ecology thinking and Darwinian understandings (Cummings & Thanem, 2002; Hatch, 2011; Tinker, 1986; Tsoukas, 1991). Furthermore even if organism metaphors are not discussed explicitly, ie

it is not announced that the organisation be considered as an organism, the implications of the metaphor are pervasive with it often being proffered that the goal of an organisation is to survive (Grant, 2010). Whereby use of the word 'survive' brings forward the notion that the organisation is a form of life. Thus the implication with the organism metaphor is that the organisation is a separate entity from its human constituents and likewise the human constituents are merely facilitators or detractors from the continued 'survival' of the organisation and the wider environment only matters in so far as it enables or detracts from the survival of this new subject the organisation (Egri & Pinfield, 1999; McAuley, et al., 2007; Morgan, 2006; Shafritz & Ott, 1992). Thus similar to the machine metaphor the organism metaphor causes us to engage in slipperiness whereby we dehumanise our social constructions, we dehumanise ourselves in using it and we simultaneously raise organisations as a focus of concern. Thus again the narrative becomes about organisations not humans and thus the metaphor does not enable the pursuit of sustainable development.

In sum, both the organism and machine metaphors result in the objectification of and dehumanisation of both ourselves and our organisations, with the simultaneous raising up of the organisation as a focus and amorphous separate subject. Consequently at even the most basic level these metaphors detract from common definitions of organisation that implicate the human as subject and a collective aim as the focus (for example see; Egri & Pinfield, 1999; Katz & Kahn, 1966; McAuley, et al., 2007; Shafritz & Ott, 1992) [ix]. In addition to the dehumanisation of some organisation members, the metaphors encourage the prioritisation of organisations as a locus of concern and thus their separation from us. This dehumanisation, separation and prioritisation of organisations is counter to the understandings of sustainable development which focuses on all humans not some people some of the time and certainly not the ongoing needs of future organisations. Similarly sustainable development perpetuates the notion of entwinement between humans and the environment via the metaphors of life support system and stewardship, it does not perpetuate the separation that is infused within the organism and machine metaphors. More simply, the machine and organism metaphors do not point towards opportunities for liberation and emancipation rather they point towards control and subjugation. Further in dehumanising organisations, the metaphors perpetuate the stripping away of moral considerations and thus again the metaphors are not complicit with an understanding of sustainable development that considers sustainable development as a "moral way of acting" (Gomis, et al. 2011, p. 172).

If metaphors help constitute reality, they have a unique power in guiding action, and as such their application is likely to result in actions that fit the metaphor in order to make

experience coherent (Burr, 2003; Ford & Ford, 1995; Lakoff & Johnson, 1980; Tsoukas, 1991, 1993). Thus organisations behave like machines or organisms because we say they do. We dehumanise the individuals in our organisations and consider them only as functional components because that is what the metaphors of organism and machine imply; and we remove ourselves from and make the organisation the amorphous yet dehumanised subject and locus of concern, because that is what the metaphors 'ask' that we do – none of these results are complicit with perpetuating a whole of humanity narrative, the narrative of sustainable development.

5- Discussion and Way Forward

Organisations cannot be grasped like a physical object and thus our reliance on metaphors to "make organisations compact, intelligible and understood" (Cornelissen, et al. 2008, p. 8) is to be expected. The typical definition(s) of the term organisation highlights how organisations are defined in terms that reinforce their social construction and reliance upon humans in that organisations are collectives of individuals pursuing common purposes (for example see; Egri & Pinfield, 1999; Katz & Kahn, 1966; McAuley, et al., 2007; Shafritz & Ott, 1992). Thus the definitions remind us that our organisations are social constructions that we use "to shape the future according to [our] individual and/or collective imagination" (Sarasvathy, 2004, p. 522) [x]. This understanding reinforces that organisations are rarely established as ends in themselves rather they emerge from the interaction of individuals and their conceptions (Katz & Gartner, 1988; McAuley et al., 2007; Sarasvathy, 2001, 2004). Invoking the etymology of the word organisation and its derivation from the Greek word organon, meaning tool or instrument (Hatch, 2011, Morgan, 2006) [xi] further reinforces that organisations are socially constructed tools that are a means for our ends. In this regard we face a challenge as to what metaphors to use to facilitate our understanding of how organisations operate. As given that organisations are not separate to us, we both form them and constitute them, the metaphors we use to understand them are metaphors we in effect apply to ourselves and thus we perpetuate a particular future for ourselves that is aligned to that metaphor (Sarasvathy, 2004). This brings forward the challenge in this paper; in that when we use the machine and organism metaphors we are perpetuating a story about ourselves that dehumanises and de-prioritises us at the expense of the organisation (the abstract) which in turn becomes a prioritised subject. This is a result that is not consistent with the whole of humanity narrative and the moral way of acting that is entwined with the sustainable development concept.

However, that organisational understanding is intimately linked to the use of metaphor gives us a plasticity that also allows us to use metaphors to de-ossify thought (Inns, 2002) and “catalyse our thinking [to help enable us to] approach the phenomenon of organisations in a novel way” (Cornellison & Kafouros 2008, p. 960). Thus invoking new metaphors may open the door for individuals to consider organisations in a new manner (Kendall & Kendall, 1993), a manner that is complicit with sustainable development. A call for new metaphors that facilitate or enhance a move towards sustainable development has been made by other authors, for example see; Audebrand (2010), Inns (2002), Mutch (2006), and von Ghyczy (2003). These authors have all questioned the use of military metaphors within the teaching of strategy and organisational theory. In particular Audebrand (2010) argues that if the language associated with the teaching of strategy moved away from war metaphors towards caring metaphors “alternative social realities” (ibid:424) that are more complicit with sustainable development might be generated.

In this regard the commentary, presented earlier, from the interviews with leaders of environmentally focused organisations offers interesting possibilities. As highlighted, the leaders of organisations that were environmentally focused yielded commentary about their organisation that was humanising and did not reduce or objectify participants and did not prioritise organisations. The interviewees referred to their organisations as tools to deliver on societal change and enable a more sustainable society. They did not see distinctions between economics, society and the environment – “it’s not real” (Company B, Founder) and a key challenge was encapsulated in a comment of “How do we design, how can we design every moment for one hundred percent of the wellbeing of all humanity?” (seventh GENERATION, Director of Corporate Consciousness). Consequently the interviewees demonstrated an understanding of the entwinement between humans and organisations and thus it appears their organisations (or ones that are similar in the values they espouse) may be useful sites for the investigation of metaphors that do not dehumanise and de-prioritise ourselves while simultaneously prioritising the abstract organisation. In short these individuals or others in a similar context may use metaphors that enable organisational understanding but are also complicit with sustainable development. Thus potentially enabling new metaphors to be uncovered and propagated that perpetuate the operationalisation of sustainable development.

In perpetuating the operationalisation of sustainable development through the use of metaphors, there is a useful, almost, apocryphal commentary by Akerman (2003) to consider. Akerman (2003) discusses the term ‘natural capital’ and the metaphorical baggage and implications of it. Akerman (2003) highlights how the introduction of the

concept of natural capital is a success particularly because of the properties of the term as a metaphor. In that the terminology invites “the audience to approach the relationship between nature and economy in a new way with familiar economic terms” (ibid: 436), the modus operandi of metaphors. Further Akerman (2003) highlights that the term natural capital moves nature from being considered as a passive store towards something that is actively managed, as nature is now an asset not just a store. This movement from asset to store, Akerman (2003) argues, facilitates an operationalisation of sustainable development policy goals, as sustainable development can be developed through asset management principles. However Akerman also outlines that operationalisation carries with it a concurrent danger of creating a mode of thinking of the natural environment in ahistorical, decontextual and economic terms only and in so doing reinforces a notion of humans as being economically rational calculative agents, albeit within the context of natural capital that rational agent can be considered an economically rational green consumer (Akerman, 2003). In this regard what becomes apparent is that the term ‘natural capital’ perpetuates a notion that humans and nature are separate, not intermingled and entwined. Thus while it might be argued that ‘natural capital’ is a term that has enabled discussions of sustainable development that may not previously have taken place; concurrently the term carries with it potential distortions. This is perhaps the limitation of all metaphors and even language itself in that language separates and classifies and thus always perpetuates separations and distinctive categories (Bateson, 2002). Nevertheless, even if this limitation is inescapable, if the intention is to perpetuate sustainable development, the argument presented indicates that this is unlikely to be enabled with the continued use and perpetuation of machine or organism metaphors to facilitate organisational understanding, rather new metaphors need to be uncovered and perpetuated and environmentally focused organisations may be useful research sites.

“Rational calculation [and bureaucratic logic] reduces every worker to a cog in this bureaucratic machine...It is horrible to think that the world could one day be filled with nothing but these little cogs, little men clinging to little jobs and striving toward bigger ones – a state of affairs...playing an ever increasing part in the spirit of our present administrative systems, and especially of its offspring, the students. This passion for bureaucracy is enough to drive one to despair...the great question is therefore not how we can promote and hasten it, but what can we oppose to this machinery in order to keep a portion of mankind free from [the] supreme mastery of the bureaucratic way of life”

(Cummings & Bridgman, 2011, p. 83 citing: Max Weber, 1909, in Mayer, 1943:127-128)

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End Notes

[i] In practical terms this is reification of a particular set of relations over others (ie the owners of a business over the non owners) and viewing those others as non problematic. However while this may be what is happening in practice, what is also happening is a form synecdoche, whereby the whole organisation is invoked to mask this power differential (Spence & Thomson, 2009). Consequently, the organisation is brought forward as subject and separate entity, albeit an organisation is nothing more than a group of individuals working together as per standard definitions of organisations (see end note [ix] below).

[ii] Although not developed in this paper, Bakan (2004) and Beets (2011) outline how within the law of the United States of America, corporations are now being accepted as a form of person and as such corporations have equal access with individuals to numerous clauses within the United States bill of rights.

[iii] Please note that in using terms such as "pursuit" the tone of the sentence and this paper is that humans are currently on a journey towards sustainable development. The journey metaphor as it applies to sustainable development has been widely discussed by Milne, et al., (2006). Also, Lakoff & Turner (1987) discuss how the baggage with sustainable development is that it encourages us to "speak of the growth and development of nations" (ibid, p. 204) as if nations had lifecycles, when plainly they do not, as nations are not a form of life.

[iv] Sustainability as used here is intended as the opposite of an unsustainable activity. Where an unsustainable activity can be defined as follows: "an environmentally unsustainable activity [can be] simply taken to be one which cannot be projected to continue into the future, because of its negative effect either upon the environment or on the human condition of which it is part" (Ekins 2000, p. 6).

[v] Lakoff and Turner (1987) outline that there are two forms of the Great Chain metaphor, basic and extended. The basic metaphor concerns the relationship between humans and animals as utilised in this paper, whereas the extended concerns humans' relationship to god and the universe and society.

[vi] An extreme could be portrayed by ecocentric paradigms which view the earth as subject and humans as mere objects (Hoffman & Sandelands, 2005; Gladwin, et al., 1995).

[vii] A full exposition of the research and its findings can be found by referring to Barter and Bebbington (2010).

[viii] Cummings and Thanem (2002) argue that while the organism metaphor appears different it is in fact a modern application of the machine metaphor and faces many of the same difficulties.

[ix] Numerous definitions of an organisation are offered in the literature including: "special purpose social collectives whose activities are informed by the interests of organisational participants" (Egri & Pinfield, 1999, p. 225); "a social device for efficiently accomplishing through group means some stated purpose" (Katz & Kahn, 1966, p. 16); "a social unit with some particular purposes" (Shafritz & Ott, 1992, p. 1); "collectives of people whose activities are consciously designed, coordinated and directed by their members in order to pursue explicit purposes and attain particular common objectives or goals" (McAuley, et al. 2007, p. 12); "the rational coordination of the activities of a number of people for the achievement of some common explicit purpose or goal" (McAuley, et al. 2007, p. 12 citing Schien 1970, p. 9); "the arrangement of personnel for facilitating the accomplishment of some agreed purpose through the allocation of functions and responsibilities"

(Burrell & Morgan 1979, p. 152 citing Gaus 1936, p. 66) and an organisation is "a system of consciously coordinated activities or forces of two or more persons" (Burrell & Morgan 1979, p. 152 citing Barnard 1938, p. 73).

[x] Also see, Morgan (2006) and Sarasvathy (2001) for further support.

[xi] It could be argued that dehumanisation is facilitated by the consideration of an organisation as tool as per the etymology of the word organisation. However the metaphor of tool cannot be elevated in this way, rather the metaphor of a tool is essentially a dead metaphor (Tsoukas, 1991). In that the use of the term tool and its associated metaphor has "become so familiar and so habitual that we have ceased to be aware of [the] metaphorical nature and use [it] as [a] literal term[s]" (Tsoukas 1991, p. 569). Consequently while dead metaphors "prefigure the ground to be studied they cannot provide significant insights regarding the study of specific phenomena" (Tsoukas 1991, p. 569), a situation that is not the case with regard to organism and machine metaphors, which are live metaphors in that they are used to facilitate and enhance understanding. Nevertheless if a position is maintained that considering an organisation as a tool is dehumanising, the reinforcement that an organisation is a tool rather than a unit of survival would likely realise a result that orgocentrism cannot be pursued, as few would prioritise tools over humanity - albeit that hypothesis requires further testing.

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Appendix

Table I: Organisations Interviewed

Organisation Name/Code	Organisation Name/Code
1. Pillars of Hercules (Organic food producer and retailer)	2. TerraCycle (Producer of plant fertilisers from waste)
3. biome lifestyle (Online retailer of home wares)	4. Company A (Producer of Fast Moving Consumer Goods)
5. Beyond Skin (Online retailer of shoes)	6. howies (Producer/Retailer of clothes)
7. Company B (Producer and retailer of business and consumer services)	8. Green Stationery Company (Producer/Retailer of consumer and business Stationery)
9. Recycline (Producer and Retailer of Consumer Durables)	10. revolve (Producer/Retailer of consumer and business stationery and gifts)
11. Green Building Store (Producer/retailer of Building Goods/Services)	12. Terra Plana (Producer/Retailer of shoes)
13. seventh GENERATION (Producer of Business and Consumer Cleaning Products)	14. By Nature (Online retailer of natural products and services)
15. Ecover (Producer of Business and Consumer Cleaning Products)	16. belu (Producer of bottled water)
17. Company C (Producer/Retailer of Business and Consumer Cleaning Products)	18. Company D (Producer/Retailer of Financial Products)
19. People Tree (Producer of Clothes)	20. BioRegional (Sustainability focused charity and creator of spin-off companies)
21. Triodos Bank (Financial Services to Businesses and Consumers)	22. Suma (Producer/Wholesales of Food)
23. Company E (Producer/retailer of wood products)	