Transitioning organisations for sustainability: implications for organisation development and change management

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Abstract: *Transitioning organisations for sustainability* (TOS) is the practice of holistic organisational transformation in response to complex social, ecological, and economic challenges. This study examined the relationship between the worldview of organisation development (OD) and change practitioners and their professional identity, particularly those practicing TOS. The study compared professional data with levels of agreement with the *New Ecological Paradigm* (NEP) Scale (Dunlap et al., 2000). Data were collected through a survey of Pepperdine University MSOD affiliates and interviews with TOS practitioners. Current TOS practice, a future desire for TOS practice, and a future-oriented outlook were shown to have some positive relationship to greater levels of agreement with the NEP Scale. This research substantiated a connection between worldview and the professional identities of OD practitioners in TOS. It also supported proposals in the literature that OD practitioners may be well positioned to lead this type of complex change.

Keywords: sustainability; organisation development; organisations; change management; change; transitioning; worldview; paradigm; New Ecological Paradigm; NEP Scale; dominant social paradigm; DSP; holistic; professional identity; future; ecological; strategic management; sustainable.

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1 Introduction

We are living at a time when business as usual, defined by a singular goal of economic profit, is no longer a viable option for organisations serving a global society. Scientist and strategic advisor Martenson (2011) stated that the next 20 years are going to look very different than the last 20 due to the simultaneous intersection of global climate change, population growth, peak oil, and economic instability. As Yaganeh and Glavas (2008) stated, "A shift is taking place. Organizations are awakening to the reality that green business practices can provide competitive advantages while simultaneously producing world benefit" (p.6).

Yaganeh and Glavas (2008) go on to coin the term *Green OD* to describe the practitioner-led process that facilitates the incorporation of sustainability-based decision-making within an organisation. This process and associated practices, furthermore referred to as *transitioning organisations for sustainability* (TOS), is generally characterised by a shift from a traditional, single bottom line-based approach recognising economic capital to a multi-faceted, holistic approach recognising social, environmental, and economic capital. While the processes employed in the interest of TOS will vary according to each organisation, they are in service of a core belief: in order for human kind's economic constructs to be viable in the long term, they must recognise, respect, and support the social and ecological systems upon which they depend.

While this description of TOS provides a basis for discussing sustainability for the purposes of this article, such clarity is generally lacking in most business contexts. In a study in the McKinsey Quarterly (2006), 84% of roughly 4,000 executives from over 100 countries believed that business should contribute to the public good; yet "despite the willingness of businesses to become green, most executives do not believe their companies are doing a good job nor even know how to implement green business practices into their strategy and daily company practices. This is specifically where OD can have a major influence" [Yaganeh and Glavas, (2008), p.6].

In order to add to the body of knowledge around TOS, a research study was conducted examining the professional identities of OD and change management practitioners. The study aimed to better understand what distinguishes TOS from other types of organisation change, and what qualities, particularly those related to worldview, distinguish TOS practitioners. First are discussions of the relevance of OD and change management to sustainability initiatives, the significance of worldview, and organisational aspects found to be characteristic TOS. Following is a brief description of the research, significant survey findings, and relevant themes from the interviews.

2 Relevance of OD and change management

Despite growing demand for strategies geared toward reorganisation around sustainability, the majority of change agents are typically unprepared with little knowledge on the topic (Wirtenberg et al., 2007) such that "a lack of understanding of what sustainability is and means to an enterprise" could be a major barrier impeding decisive corporate action [Hopkins et al., (2009), p.20]. Novice sustainability practitioners place their efforts in the context of regulatory actions, hoping to reap benefits around branding and marketing. More experienced and knowledgeable practitioners consider the possibilities within a broadened economic, social, ecological, and individual context as they relate to the wider business landscape (Hopkins et al., 2009).

Spontaneous, internally driven initiatives can be of value, but lasting, system-wide progress toward sustainability requires the skills and experience of professional change agents (Dunphy et al., 2007). There is strong consensus in the literature that OD and change approaches, especially those principles fundamental to learning organisations, have a reciprocal relationship to the success of organisational sustainability issues (Adams, 2006; Benn and Baker, 2009; Bradbury et al., 2005; Capra, 2007; Dunphy et al., 2007; Hopkins et al., 2009; Jamali, 2006; Lawler and Worley, 2011; Post and Altman, 1992; Senge, 2008; Shrivastava, 1994; Stead and Stead, 2008; Wirtenberg et al., 2007; Yaganeh and Glavas, 2008). In particular, OD professionals trained in the facilitation of dialogue, Appreciative Inquiry, Future Search, and other such large group methodologies may be particularly suited to lead sustainability initiatives.

The relevance of OD principles to successful sustainability endeavours is illustrated by a pool of data from decades of ecosystem simulations where economically competitive teams share management of a fish hatchery (Senge, 2008). With great consistency, the teams participating in the simulation, including those populated by members of environmental protection groups, harvested the ecosystem to collapse. One exception highlighted a group that concluded the simulation with a thriving ecosystem, as well as the highest profit. According to Senge (2008, p.171), this group owed its anomalous success to a business culture that "has long valued organizational learning, systems thinking, and conversation between and among groups as core business practices".

There is much evidence in the literature supporting the relevance of OD principles to the process of TOS. It is noteworthy that even those participants in the ecological simulation representing environmental groups fell victim to what is known as *the tragedy of the commons*, the human phenomenon of the individual pursuits of expansion, profit and growth among members of a community leading to the eventual degradation and collapse of a shared ecosystem (Hardin, 1968). Values and intention do not ensure ecological and economic sustainability. The capabilities crucial to success were the systems-thinking skills and experience present in a learning organisation, one where "the sharing of basic information ensures that all players know the health of the commons upon which all ultimately depend, the essential condition for healthy competition" [Senge, (2008), p.172].

Supporting this example is the idea that learning dynamics is considered the most important factor enabling organisations to move towards sustainability, greater in importance than both cultural dynamics and organisational values (Dunphy et al., 2007). This highlights the potential for the field of OD to play a pivotal role in the paradigm shift that will move human and ecological systems toward long-term viability.

In order for change practitioners to facilitate these types of organisational and societal shifts successfully, it is crucial that they first educate themselves about sustainability. Central to the discussion of education is recognition of divergent paradigms, or worldviews, which inform one's individual values and perspectives regarding sustainability. This study was conducted to add to the body of knowledge about OD and change practitioners practicing TOS, and in particular to promote a greater understanding of the significance of paradigm, or worldview, in accelerating transitions toward sustainability.

3 Sustainability and worldview

Ambiguities around the term sustainable, and subsequent lack of a standardised universal definition, impacts attempts to further define and understand TOS. Currently, a sustainability initiative may vary significantly from an intervention as discrete as risk management to one as deep as complete restructuring around social and ecological principles. Definitions of sustainability are varied and individualised; both the client's and practitioner's definition of what it means to be sustainable heavily influences the parameters of the work. How one views and defines sustainability is influenced by one's worldview or paradigm, discussed below.

3.1 NEP-DSP: contrasting worldviews

The study of current literature on organisations and sustainability reveals a collection of research, findings, and proposals that may be divided into one of two categories along a continuum, with each end of the continuum representing a differing worldview or mental model. One worldview defines organisational sustainability through a lens that recognises ecological limits to growth, while another defines organisational sustainability through the lens of the growth and currency-related status quo (Ryland, 2000). For the purposes of this discussion, the mental model of sustainability recognising ecological limits to growth is identified as the New Ecological Paradigm (NEP) and the mental model of sustainability viewed from within currency-based principles of continued growth is identified as the dominant social paradigm (DSP) (Dunlap, 2008; Dunlap and Van Liere, 1984, 2008; Dunlap et al., 2000). The NEP, as classified by Dunlap and Van Liere (2008), focuses on "beliefs about humanity's ability to upset the balance of nature, the existence of limits to growth for human societies, and humanity's right to rule over the rest of nature" [Dunlap et al., (2000), p.427].

The diversity of viewpoints stretching between the poles of the NEP and DSP help explain the vague and elusive nature of sustainability. An array of terminology and definitions are available to describe it. These include, but are not limited to: *corporate social responsibility* (Bernhart and Maher, 2011; van der Heijden et al., 2010; van Marrewijk, 2004); *corporate responsibility and sustainability* (Epstein, 2008); *greenwashing and eco-efficiency* (McDonough and Braungart, 1998); *sustainable development* (World Commission on Environment and Development, 1987); *triple bottom line* (Elkington, 1997); *triple top line* (McDonough and Braungart, 2002a, 2002b); *quadruple bottom line* (Borland, 2009); *Cradle to Cradle* (McDonough and Braungart, 2002a); *Green OD* (Yaganeh and Glavas, 2008); and *sustainable management*

organisation (Lawler and Worley, 2011). All are used to describe the emerging paradigm of diversifying the concept of capital to include social and environmental value.

Studies cite that one reason organisations struggle with sustainability implementation is because there is a basic lack of commonly agreed-upon terminology, definitions, or understanding of what it means to be sustainable (Berns et al., 2009). Companies do not share a common definition or language for discussing sustainability – some have no definitions at all, and those that exist vary from narrow to quite broad. This lack of universal language has been shown to be a barrier to 'decisive corporate action' (p.24) because "in some instances, sustainability is considered to imply the need for the radical reorganization and restructuring of society along ecological principles, in other instances it is considered in terms of incremental reforms to the status quo" [Milne et al., (2006), p.802]. Distinguishing between the DSP and NEP worldviews provides a contextually relative foundation for understanding sustainability and the role of the change agent within this dialog. The following comparisons highlight the importance of worldview as central to the understanding of the variety of organisational efforts labelled as sustainability initiatives.

3.1.1 Ecological economics vs. neoclassical economics

Neoclassical economics represents what might be thought of as a closed system, a constructed reality held separate from the laws of nature, biology, and society. This closed system is not isolated from the social and ecological environment in which it exists, and consequently both uses and impacts the resources from these systems. However, they are not accounted for in neoclassical economic theory. This lack of accounting related to the use of and impact upon social and environmental resources commonly produces negative results, typically labelled *externalities*. Many of the world's most critical resources, such as air and water, are taken for granted as free inputs to this closed system, and "accorded no value unless they acquire economic worth in the process of production" [Dunphy et al., (2007), p.11]. Pollution, resource depletion, and health threats are commonly occurring externalities. These types of impacts often take longer to become evident, and rarely take precedence over immediate stakeholder interests, short-term profit margins, or productivity. Therefore, they are largely ignored when considering an economic business solution.

Ecological economics, by contrast, operates on the premise that the concept of a closed system is a flawed system. Closed systems functioning separately from their environments contradict the laws of nature, of which humans are not exempt. In ecological economics, biological and social resources, as well as the impacts to those resources, are considered integral functioning components of a healthy economic system (Dunphy et al., 2007). A forest's ability to provide valuable ecological services such as soil stabilisation, protection against desertification, topsoil and plant material production, water and air purification, and natural air conditioning, depends upon the maintenance and protection of an optimally functioning ecosystem. Ecological economics hinges upon valuing biological systems as entities performing work and providing services, valued at trillions of dollars annually, and for which human kind currently has no technological equivalent (Nattrass and Altomare, 1999). Therefore, the long-term viability of human-constructed economies are wholly reliant upon the long-term viability of these crucial 'eco-system services' (p.4), which authors consider to be generally unaccounted for within the current paradigm of neoclassical economic theory.

3.1.2 Survival stage vs. profit stage

Stead and Stead (1994) predicted that as the 21st century progresses, human societies will experience at least two shifts in their approach to business practices. These shifts are viewed as an incremental assimilation of ecological sustainability into their economic systems. The first stage of this process is described by the authors as the profit stage, where the markets reach general consensus that conservation and ecological consideration is good for business, due to cost savings and marketing opportunities to meet the expectations of an increasingly conscientious public concerned about the newest sustainability trend. Stead and Stead warn that the profit stage "fits somewhat comfortably into the current myth of economic wealth. Real change can occur, but within basically the same system of ideas" (1994, pp.16–17). The broad majority of sustainability change efforts occurring today would be categorised as profit stage initiatives.

Survival stage initiatives are considered truly sustainable (Stead and Stead, 1994) and will follow significant societal and organisational paradigm shifts. These will be prompted by the idea that infinite growth is not plausible, and that boundaries may exist that will constrain the current growth-based trajectory of profit. Similar to ecological economics, profit and economic wealth will be reconsidered within their social and environmental context. The survival stage represents a broadened perspective, where the drive for perpetually increasing economic growth and short-term profits is tempered by long-term perspectives prioritising the vitality of ecological and social systems.

3.1.3 Strong sustainability vs. weak sustainability

The use of *strong* or *weak* as qualifying adjectives when discussing sustainability is another way to differentiate between two major worldviews: strong sustainability refers to a kind of sustainability that requires fundamental, and therefore radical, changes to the status quo; weak sustainability refers to a functional, business case approach to sustainability that modifies the status quo to include financially-approved allowances for more responsible business practices (Milne et al., 2006). While some argue that weak sustainability initiatives are preferable to no initiatives, they do implicitly condone the current paradigm of growth and wealth by viewing sustainability from within the contexts of those human-made systems. Milne et al. (2006) suggested that strong sustainability "sees existing and looming crises from the over-exploitation of resources…due to such causes as over development, over consumption, and over population" (p.806). It views sustainability as growth and wealth set within the limits of nature, and as such, warns that we have reached a critical point in human history where we will exceed, or perhaps have already exceeded, the carrying capacity of the planet.

3.1.4 Deep ecology vs. shallow ecology

What humans do to their environment, they do to themselves. If humans damage their ecosystem, they are automatically damaging their own health, well being, and the health and well being of future generations. This basic concept, or understanding of human kind's intrinsic relationship to the environment, is what author Naess (1989) termed deep ecology. The tenets of deep ecology are based on systems intelligence, or an instinctive understanding that all things are universally interconnected. When one part of this interconnected web is impacted, deep ecology holds that other parts will be impacted as

well, in potentially unpredictable ways. While this point of view fosters a humility and respect for the balance of the earth's ecosystems, shallow ecology is a term assigned to a more linear approach to the ecosphere. By contrast, this approach is characterised less by an understanding of interdependency and more by a motivation to protect precious resources for human interests, especially the interests of those in more affluent, developed societies of power and advantage (Naess, 1989; Ryland, 2000).

4 Common characteristics of TOS

The literature revealed several themes characteristic of the process of implementing sustainability initiatives that may begin to further define and inform the discussion of TOS. They include: paradoxical and often conflicting goals; significant culture change; secondary gains of organisational competitive advantage; planning over a longer time horizon; soft systems of leadership, human capacity, and values as crucial for success; and transitioning human systems by mimicking nature.

4.1 Paradoxical and often conflicting goals

As organisations operating in the DSP, or status quo, attempt to integrate social and environmental interests with economic interests, additional stakeholder voices add complexity to the decision making process. Complexity is often accompanied by ambiguity, as most social and environmental impacts and payoffs are more difficult to measure than short-term economic profit. Managers often find themselves torn between contradictory demands, trading between stakeholder interests in the attempt to strike a balance amenable to all (Epstein, 2008; Ferdig, 2007; Hall and Vredenburg, 2003). To help mediate the complexity of sustainability in business practice, managers may benefit from a way to visualise and debate about deeper patterns underlying business issues (Senge, 2008). Leveraging the capability to see the issue within a larger context, or pattern, allows an organisation to plan for a long-term resolution and benefit from new opportunities (Wirtenberg et al., 2009). This may be understood as a comparison between isolated short-term decision making, or *shifting the burden* problem solving, versus holistic long-term decision making, or *pattern thinking* problem solving (Senge, 2008).

4.2 Significant culture change

Given the discussion of the DSP-NEP paradigm shift, culture change will likely need to occur at both the organisational and societal level in order to transition an organisation for sustainability (Dunphy et al., 2007; Ferdig, 2007; Senge, 2008; Sharma and Vredenburg, 1998). Organisations have developed their own unique culture within the greater context of shared societal norms and expectations, and shifting ingrained societal assumptions and paradigms is challenging. It means adopting new ideological foundations on which the assumptions are based (Stead and Stead, 1994). The science on the phenomenon of paradigm shifts warns that in the face of change, the realities that support the status quo will appear very convincing. Communication between new and old paradigm thinkers may be challenging, as old paradigm thinkers may not have the context, language, or experience to understand and embrace the new paradigm. Paradigm

shifts require people to step outside their usual ways of looking at their world in order to reap the benefits of objective observation and widened perspective (Kuhn, 1962).

4.3 Secondary gains of organisational competitive advantage

A correlation exists between organisations that have undertaken significant sustainability initiatives, and organisations that outperform their competitors in the marketplace (Berns et al., 2009; Dunphy et al., 2007; Epstein, 2008; Lee, 2009). Because successful sustainability initiatives require change at all levels of an organisation, including an organisation's culture, the task of reaching sustainability success hones the organisation's capacity to innovate, respond quickly to challenges, and align itself to rapidly changing markets, all of which require vision and creativity. Hart and Milstein (2003, p.65) wrote, "Addressing the full range of sustainability challenges can help create shareholder value and may represent one of the most under-appreciated avenues for profitable growth in the future".

4.4 Planning over a longer time horizon

The prevalence of urgency as a pre-requisite for action in the DSP is problematic for the successful undertaking of sustainability initiatives. Unlike economic gains, social and environmental investments may be measured over generations, not minutes. Such issues are also typically complex, subject to interpretation, and easily shelved as unfeasible so that the organisation may pursue more clear-cut and less ambiguous economic ventures (Bansal, 2003). Driscoll and Starik (2004, p.59) propose that traditional management paradigms are therefore limited in their responsiveness to ecological risks due to a "denatured view of the environment, a production/consumption bias, a financial risk bias, and excessive anthropomorphism". Specific capabilities are required to move beyond traditional management practices. These include skilful consideration of stakeholder interests, including under-represented populations and ecological systems (Driscoll and Starik, 2004; Maak, 2007; Starik, 1995) and the fostering of an organisation culture that encourages and rewards long-term thinking (Berns et al., 2009), beginning with strategies of environmental scanning, scenario planning, and forecasting along various timelines (Lawler and Worley, 2011).

4.5 Soft systems are crucial for success

Authors describe skills considered *soft* in today's market as crucial to sustainable businesses of the future. After studying several companies recognised for their sustainability initiatives, one study found that while hard systems such as protocols, regulations, and operations were important for the successful adoption and incorporation of organisation sustainability, it was the soft systems, notably leadership, human capital, and values, that were most crucial to success (Epstein et al., 2010). Seeing systems, collaborating across boundaries, and creating desired futures must be developed in today's individuals and organisations in order to create networks capable of building and sustaining systemic change (Benn and Baker, 2009; Epstein et al., 2010; Senge, 2008). Much of the potential within any human organisation lies in honing its member's natural systems intelligence to purposefully direct strategic sustainability through language and meaningful dialog (Senge, 2008).

4.6 Transition human systems by mimicking nature

One of the most consistent themes within NEP literature addresses studying, learning from, and mimicking nature and natural processes as necessary for the full integration of economic, human, and biological systems (Benn and Baker, 2009; Borland, 2009; Capra, 1997, 2002, 2007; Daly, 1977, 1991; Ferdig, 2007; Hart, 2005; Knowles, 2009; Odum, 1994; Porter, 2006; Twomey, 2006). With that understanding, Capra (2007, p.1) argued, "we can design processes of organizational change accordingly, and create human organizations that mirror life's adaptability, diversity, and creativity". Contemporary texts such as *Limits to Growth: The 30 Year Update* (Meadows et al., 2004) support Capra's (1983, p.213) premise that "unlimited expansion in a finite environment can lead only to disaster", while *Steady State Economics* (Daly, 1977) warns that ecological inputs of energy and materials are not taken into account in economic theory, and therefore human kind's economic activity risks surpassing the carrying capacity of the planet.

There are several biological concepts the authors urge organisations to learn from, including but not limited to *biomimicry* (Benyus, 1997; Lovelock, 1988, 1991); *complexity science* and *complex adaptive systems* (CAS) (Marion and Uhl-Bien, 2001; Uhl-Bien et al., 2007); *thermodynamics* (Borland, 2009; Daly, 1977, 1991; McDonough and Braungart, 2002a; Stead and Stead, 1994); *co-evolution* (Benn and Baker, 2009; Capra, 2007; Porter, 2006); *the crisis-oriented human brain* (Driscoll and Starik, 2004; Hall and Vredenburg, 2003; Lovelock, 1991; Lowenstein, 1992; Ornstein and Ehrlich, 1990; Starik, 1995; Stead and Stead, 1994, 2008); *tragedy of the commons* (Hardin, 1968; Senge, 2008); and interdependent concepts of *competition* and *cooperation* (Borland, 2006; Senge, 2008; Uhl-Bien et al., 2007; Wirtenberg et al., 2009; Worley et al., 2010) termed *coopetition* (Wirtenberg et al., 2007).

5 Research design

The dichotomy between the DSP and the NEP mental models is significant when discussing the facilitation of sustainability initiatives in organisations. To test for a relationship between those change agents working in TOS and level of endorsement of the NEP Scale, a survey was conducted among an anonymous sample of affiliates of Pepperdine University's Master of Science in Organization Development (MSOD) program at the Graziadio School of Business and Management in Malibu, California. Affiliates include MSOD faculty, students, and alumni. Subsequently, interviews were conducted with six OD and change practitioners heavily involved in TOS.

6 Survey results

Significant findings from the survey data include a positive correlation between the percentage of time survey respondents currently spend on TOS and level of agreement with the NEP Scale (r (48) =.315, $p < .05$). There was also a positive correlation between the desired percentage of time survey respondents would like to spend on TOS in the future and level of agreement with the NEP Scale (r (46) = .321, $p < .05$).

The results of the study also support findings in the literature that one of the distinguishing factors of the NEP-DSP worldviews is a differing perception of time; those subscribing to the NEP worldview tend to have a more long-term, future-oriented outlook while those subscribing to the DSP worldview tend to be oriented toward the short-term present. Consistent with this characteristic, an unequal variance t-test comparing levels of NEP agreement of those who believe 'the present is most important' versus those who believe 'the future is most important' reflected significantly greater levels of agreement with the NEP Scale in those who were future-oriented ($p < .05$). For more information or for the full data set, please contact the authors.

7 Interview results

The interview consisted of responses to the NEP Scale as well as a series of open-ended questions aimed at collecting information regarding the relationship between the professional identities of TOS practitioners and worldview. The average level of agreement with the NEP Scale for interviewees was 75.75. This is higher than the average reflected by the survey sample at 64.38. This supports the findings of the survey, which determined that those who currently spend greater amounts of their professional time practicing TOS tend to have a higher level of agreement with an ecological worldview as determined by the NEP Scale. It should be noted that half the interviewees objected to at least one of the NEP Scale statements, citing poor or vague wording or over-simplification of concepts.

The interview answers resulted in several themes. These include: definitions of sustainability; significance of worldview; characteristics of TOS; characteristics of those practicing TOS; approach to conflict; and future of OD and change and TOS.

7.1 Definitions of sustainability

Consistent with the findings from the literature, each of the six interviewees provided their own unique definitions of sustainability. One termed it as "a way for us to use our resources without impacting the future generation's ability to use their resources". Another worded their interpretation of sustainability as "over time, it's living with means". A third said "for me, it is helping social change organizations...be successful" while another defined it as "a vision of moving towards a state of great integration and wholeness". Another interviewee explained it as focusing "on the triple bottom line, people, planet, and profits" while the last described themselves as "hedging a definition", saying that sustainability is the idea of "making life worth living and livable for as many as possible for a long period of time".

While definitions vary, half specifically mentioned that current popular definitions of sustainability fall short, saying "a lot of people talk about sustainability like survivability, like you're going to just continue sustaining yourself". Another questioned the parameters of the current concept, stating "I personally think [sustainability] is a horrible word....you can sustain crap..." and "when you're in the world of sustainability everyone is always talking about the carrying capacity of the planet. The planet will do fine without us".

7.2 Significance of worldview

More than half of the interviewees directly related their worldview to their childhood experiences. Of these, three credited their connection to sustainability to relationships with parents, three mentioned profound experiences in nature, one mentioned financial hardship, one mentioned an urban upbringing, one mentioned a rural upbringing, and two expressed the innateness of their worldview such that it had 'always been a part of my personality' or that they were 'wired this way'.

More than half of the interviewees expressed that the worldview begun in childhood has had an influential and reciprocal relationship with their adult academic and professional choices. One stated that "there's a real connection" while another stated "there's a pre-wiring in that....you are drawn to the fields that tend to focus on that" and a third stated that the decision to pursue a career at the intersection of business and the natural environment "certainly was tapping back into those old impressions that had been there, but dormant all that time".

More than half told stories linking their exposure to environmental or social data in adulthood to the re-commitment to, and evolution of, their current worldview regarding sustainability. To describe their feelings, they use terms such as 'a shaping event', 'sickening', 'awakening to the horrors', 'knocked the props out from under me' and 'a light bulb going off'.

7.3 Characteristics of TOS

More than half of the interviewees consider education to be an important part of the work they do as TOS practitioners. One stated that "education is paramount" while another said "[educating others] is most of what I do". They indicated that bumping up against the status quo – or DSP – is characteristic of TOS. One person stated:

> "I believe there are some structural, systemic barriers to sustainability that go beyond even the organization's capability to improve....there are some incentives for companies to be very short-term, and to do a lot of exploitation because the externalities are not included...So the economic incentives are exploit-based on the old paradigm of exploiting the earth, destroying. Until some of those things are resolved, we're in an uphill battle. We can do only so much in organizations."

Half of the interviewees felt that effective communication was characteristic of TOS. For example, "it's when you're able to share a pattern or articulate something in a way that, it may be the first time they are hearing something that way, but it is absolutely inherently and intrinsically recognizable as true". Half also mentioned innovation as a characteristic of TOS. They used phrases such as "we have to do things differently", "approach a problem in an entirely different way that no one has ever thought of before", and "completely reframe the question".

All of the interviewees felt that basic OD principles are important characteristics of TOS, using phrases such as "sustainability is focused on OD kinds of things: culture change, mind sets, employee engagement, leadership development, talent management" and "your work is often times just creating conditions for them to be able to see what their work is, and to support them in organizing effectively around taking action and being able to sustain that action". Other statements included: "at the core of it, it has been

OD work"; "those are fundamentally OD kind of undertakings"; and "not that [OD and sustainability] go hand in hand but I think that the principles are interwoven".

More than half felt that trans-organisational development was characteristic of TOS. One stated "people who are concerned with...all these different issues...they've all come together because they realize these issues are all linked to a common problem that they want to address". Another felt that:

> "one of the things [clients] immediately begin to realize is, I can't do this, working solely within my own boundaries as a system...the only way I can do this is to engage with others that are a part of this larger system. To me the work is trans-organizational development and design."

Half indicated that they believed that TOS involves shifts in awareness, stating that "people are just quick to criticize and not want to grab onto the ideas because...its different than what we are used to". Others used statements like "how do we as organizational development professionals in sustainability...create conditions for people, individually and collectively, to have this shift" and "what we do is sort of work with them to shift their perspective" and "often its some of the best work we do because it allows shifts to happen".

7.4 Characteristics of those practicing TOS

Half of the interviewees reported willingness to prioritise the greater good as characteristic important for success in TOS, using phrases such as "make a positive difference in the world", "something bigger out there than ourselves" and "be willing to let go of your own personal agenda and help a group of people find what they collectively are going to get behind". One stated that "businesses do have a responsibility to their shareholders...but if they achieve that responsibility at the expense of others then that is not a sustainable model".

Half mentioned comfort with ambiguity as an important characteristic of those practicing TOS, stating that "there is a lot of trust involved, you can't keep score every day" and that a change agent must "be absolutely comfortable with the ambiguity, and not forcing answers". Another stressed the importance of "not trying to look good as the consultant and like you have all the right answers...the ambiguity, the discomfort, the not knowing, that's the brave stuff". Another stated that "to travel through all those different levels and find ways to connect them, even when...often they are riddled with paradoxes...and the combination of equal level of frustration and successes....that probably points to a fair amount of tolerance for ambiguity".

Half mentioned the ability to work at different levels simultaneously as an important skill in TOS. Statements include "I think its the ability to work at a meta- system level and sub-system level simultaneously" and "we're kind of doing OD at a global economic macro level, at the same time we are doing it in organizations". Another expressed the shifts in scale as the ability to "go out into that divergent exploration of, what is this larger thing that we are really a part of...what is this that we are starting to co-create, and then bring that back in" and "I think it is absolutely necessary to be able to switch from individual task thinking to very big picture thinking".

More than half of the interviewees talked about system's intelligence as a key capability with TOS work, such that organisations must "begin to think of themselves as a system...continually impacted by and continuing to have an impact on". Another said a

key to the work is "being able to support individuals in community...it's harder and harder to say that I can do what I want to do without having to rely on you or consider your point of view". At the ecosystem scale, another person states that "we are – every life form is – part of a larger system that is inherently connected". Another reflects on what makes them successful at what they do as seeking to be "conscious of my own thoughts and my own actions and how they impact other people. I think it's an important skill to have".

7.5 Navigating conflict around sustainability

More than half of interviewees talk about the importance of meeting conflict around sustainability with inquiry and respect. Statements supporting this belief include "it starts with listening, with inquiry", "moving to a deeper level of understanding, it comes from respect", "having dialog, inquiry, its a whole different way of being", "what is your resistance? what is holding you back from making these changes?" And "approach that with curiosity instead of defensiveness". Another says that "the discourse we have now is never going to get anywhere. Because its talking at each other, over each other, not listening, advocating, being right, and its all the wrong kind of conversation".

More than half alluded to issues of sustainability as values-based. One shared that sustainability is "a huge ethical and moral issue" and a second stated that "I've always had this very strong sense of what's right and what's wrong, and for me it has always been important to follow that". Another indicated that sustainability cannot be relayed through dollars and cents alone: "Sustainability is not a head sell. You will never convince anyone to pursue a sustainability agenda in a meaningful way through a business case". Another said that:

> "there are some people in our industry who have little fundamental attachment to the underlying sustainability of the industry and for whom this looks like just another good business opportunity. A person who is doing this because it's just a good a way to make a buck...with them....it just doesn't resonate."

While the business case is important "to legitimize and strategize....it is not what transforms".

7.6 What the future holds from the point of view of TOS practitioners

More than half indicated that sustainability is becoming a business reality for today's organisations. They use statements like "I think that it's catching on", "there's a bandwidth for it, there seems to be an appetite", "as long as they expand their general per view of understanding sustainability as part and parcel of today's decision making", "my sense is that the demand for [business sustainability] will only expand", "the B corporations that are doing well by doing good.....there's a lot of organizations that are committed to that", "I think you don't always have to work for a non-profit in order to do social change...I believe that business can be a source of good in the world", and "it will behoove firms to not only...reduce contributions to climate change but also start thinking about...how they might be affected".

More than half consider TOS to be a significant opportunity for OD and change practitioners. One states that "it is a huge missing and a huge opportunity....OD people are desperately needed in this field, but they need to school themselves about what is

going on with sustainability first". Another states that "I think there's definitely a ground floor opportunity for OD practitioners to get into green consulting". A third states that "there is tremendous opportunity for organization development practitioners to get involved with social change issues". One person comments on the interconnectivity of our world, stating that "if you really want to affect change then you're going to have to become better and better...working organization to organization, group to group. That's where it's going".

7.7 Analysis of the interview data

Analysis of the interview data showed that worldview is directly related to work in TOS for this sample population, most importantly in influencing professional choices and shaping professional identities over time. Interview data also support the survey data in that those who either currently spend, or would like to spend, greater amounts of their professional life practicing TOS tend to have a higher level of agreement with the NEP Scale. Though all interview participants are considered TOS practitioners based on the definition provided for the purposes of this article, their work represents a diversity of types and scales, from entrepreneurial to non-profit and individual coaching to trans-organisation development, and spans all sectors – non-profit, for-profit, government, community, and academic. The consistency of the themes reported across this diversity of professional profiles indicates that principles of TOS, like OD, are highly scalable and widely applicable. It also indicates that there is much more to understand about the key skills, capabilities, and characteristics required to achieve success in this multi-faceted practice.

8 Conclusions

Global imperatives for more holistic business practices support the relevance of TOS, yet the literature draws a wide and often conflicting picture of the practice. This divergence may be traced to a dichotomy of worldviews, or paradigms, one of which has been established by Dunlap et al. (2000) as the DSP and the NEP.

Previous research about the significance of worldview related to discussions of sustainability issues were supported by the findings of this study (Adams, 2000; Berns et al., 2009; Dunlap et al., 2000). Also, supported by the findings of this study was the high degree of relevance of OD and change practitioner's skills to the myriad of global challenges we face in our communities and organisations (Yaganeh and Glavas, 2008; Worley and McKloskey, 2006).

In addition to possessing the training, background, and skills to facilitate change for sustainability within organisations, OD and change practitioners may also be well suited to lead the re-examination of large-scale economic and social systems that limit organisation progress with sustainability. This includes dynamics related to the psychology of paradigm change (Stead and Stead, 1994) as well as a pervasive social resistance to accepting the devastation human economies wreak on the planet (Macy, 1995; Sewall, 1995), a resistance so deeply embedded in the culture of mainstream global society that it may be classified as a social complex (Ryland, 2000).

An understanding of the science behind paradigm change and social and ecological sustainability are central to effective change management in TOS. These issues require

further specialisation and skill development on the part of change practitioners as the world's organisations begin to shift their orientations toward more holistic business practices.

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