AN INTEGRAL METATHEORY FOR ORGANISATIONAL SUSTAINABILITY: LIVING WITH A CROWDED BOTTOM LINE IN CHAOTIC TIMES

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Abstract: A metatheoretical approach to sustainability is proposed that attempts to resolve some fundamental paradoxes facing organisations. The urgency for organisations to respond to the challenges of global environmental imperatives is reaching a critical point. The issues are complex, chaotic and involve deep-seated paradoxes. On the one hand, we have growing competition in the economic arena and a consequent increase in the daily pressure on organisations to survive and prosper. On the other hand, the social demands on organisations are increasing and have been greatly complexified by an expanding set of additional bottom line factors for assessing their performance. All this has come at a time of increasing turbulence in organisational environments. Individual businesses as well as, national and international economies are caught in the paradoxical situation of responding to increasing pressure to generate economic growth while it is this very development in economic production and consumption that is causing immense environmental change and contributing to the irrevocable social disruption that results. This article uses some metatheoretical lenses identified from the relevant sustainability, transformation and organisational learning literatures to explore a number of fundamental paradoxes facing organisations – the growth, learning and sustainability paradoxes. A set of metatheoretical are identified and used to see how organisations might respond to these challenges. From this analysis some new avenues for achieving authentic sustainability and for living with the "a crowded bottom" are also identified.

1. INTRODUCTION

There is growing pressure on organisations to include several broad measures of performance that traditionally have been regarded as lying outside their orbit of responsibility. To the profit/economic survival imperative we must now add the additional bottom lines of environmental and social accountability (Elkington, 1999). This triple bottom line has been amended more recently to also include the criterion of governance and there appear to be other candidates in the wings waiting to be added to this list of factors for assessing an organisation’s overall performance (Armstrong, 2003; Henriques & Richardson, 2004; Horrigan, 2002; Inayatullah, 2005).

While there has been somewhat of a backlash against this development, there are very good reasons for the organisational bottom line becoming increasingly crowded. First, the multiple responsibilities that organisations currently face reflect their growing power in the world. As organisations grow larger and/or attain global reach in their use of labour, natural resources, financing and political influence, so too does their responsibility broaden to embrace the complexities of their various spheres of operation. Second, a corollary to this growing organisational power is that globalisation cannot be quarantined to include only commercial interests of trade, finance and labour markets. Globalisation will necessarily entail aspects of environmental sustainability, social equity, global governance and international relations. Accompanying this globalisation of social and environmental concerns there will also need to be a concern for the local and the situated needs of the host communities in which organisations operate. Third, the growing number of indicators of organisational performance reflects the postmodern concern for plurality and diversity (Schoenberger-Orgad & McKie, 2005). Where modernism and the scientific approach to management sought to bring together multiple concerns under the single banner of economic performance, postmodernity seeks multiple means for assessing the usefulness and trustworthiness of social entities. The voices of multiple stakeholders must now be acknowledged and heard. The increasing size and influence of organisations means that there is a commensurate increase in the number and diversity of consumers, community members, small shareholders, employees and their advocacy groups. These stakeholders represent a variety of opportunities for, and demands on, organisations and the growing number of bottom line indicators taps into their multiple experiences. In essence, the bottom line is a way of expressing the core purpose of an organisation. In postmodern society purposes are multifarious and the bottom lines of organisation are beginning to reflect that diverse reality.
All this requires a corresponding shift in the understanding of organisations and their purposes from a research and theory building perspective (Ghoshal, 2005). Theories of organisations and their responses to contemporary social demands must be able to accommodate the multiplicity of perspectives that are present in contemporary societies. One way of developing multi-perspectival capacities in our scientific understandings is through the building of metatheory. Nowhere is this task more urgently needed than in the study of organisational sustainability. To be sustainable, organisations must not only meet economic, environmental, social and governance requirements but also embody them in their practices and values (Brown, 2005) even during times of turbulence and extraordinary upheaval. In the following article, a metatheoretical approach to organizational sustainability is proposed that can accommodate this plurality. First, some introductory comments are presented on the development of an integral metatheory. This is followed by a presentation of some core theoretical lenses that have relevance to issues of organisational learning and transformation in turbulent environments. Next, the model is applied to some central paradoxes in the pursuit of sustainability. Finally, the discussion looks at the general prospects for integrative metatheorising and its use in organisational change in turbulent times.

2. INTEGRAL METATHEORISING

Metatheory is concerned with “the study of theories, theorists, communities of theorists, as well as the larger intellectual and social context of theories and theorists” (Ritzer, 1988, p. 188). Scientific metatheory building takes other scientific theory as its subject matter: Scientific metatheories transcend (i.e., ‘meta’) theories and methods in the sense that they define the context in which theoretical and methodological concepts are constructed. Theories and methods refer directly to the empirical world, while metatheories refer to the theories and methods themselves (Overton, 2007, p. 154). Metatheorisng is the process of developing metatheory or performing metatheoretical research. Metatheorisng is similar to other forms of sense-making in that it attempts to structure and derive meaning from some body of knowledge, information, data or experience. It is different to mainstream theory building in that the body of information it draws on, its “data”, is other theories (van Gigch & Le Moigne, 1989) or “unit theories” as Werner and Berger (1985) call the individual theories that are the focus of study for metatheorists. Figure 1 shows the relationship between theory and metatheory. The metatheoretical domain (meta-level research) is one where the connections and differences between theories (unit-level research) and their respective research programmes are analysed and integrated. The “so what” of metatheory is that it provides an orienting perspective where previously there was only an eclectic mix of isolated theoretical positions.

An integral metatheory for organisational sustainability draws on multiple theoretical approaches to develop a overarching framework that can accommodate a wide range of “endogenous elements” of theories (Klein, Tosi & Cannella, 1999). These conceptual building blocks are referred to here as conceptual lenses and, together with their inter-relationships, they form the “architechtonic” or conceptual infrastructure of a metatheory (Ritzer, 2001). Because lenses are developed at the metatheoretical level, they are able to resolve some fundamental paradoxes that exist within and between unit-level theories. For example, many theories of organisational change are based on the concept of growth (Lester, Parnell & Carraher, 2003). Yet, in many ways, it is the unquestioned pursuit of economic growth that is associated with unsustainable organisational practices (Choi & Pattent, 2001). This growth-sustainability paradox can only be resolved at a dialectical level that acknowledges the need for both development and stability (Stacey, 2005). Metatheoretical lenses are often developed out of the resolution of these kinds of paradox (Van de Ven & Poole, 1988). In the following sections, some fundamental conceptual lenses for understanding sustainability and its relationship to turbulent organisational environments are described.
3. SOME CONCEPTUAL LENSES FOR SUSTAINABILITY

3.1 The developmental lens

Meeting the sustainability challenge inherently involves transformation. The radical changes required for some sustainable form of global ecology and economy will involve paradigmatic shifts not only in the external worlds of individual and organisational behaviours and economic structures economic factors but also in the internal worlds of values, purposes and visions for the future (Bradbury, 2003). Theories of transformation towards sustainability are diverse and offer multiple explanations for how organisations can move towards more sustainable principles and modes of practice. Every organisation is different in its purpose and mission, culture, structural design, business goals and human make-up. There are, however, patterns of similarities that exist between individuals and groups, the social structures that they create and the goals that they pursue through organised social arrangements. These regularities can be described in terms of stage-based models of development (Cacioppe & Edwards, 2005).

The developmental lens is sensitive to the deep structures (Gomez & Jones, 2000) or design archetypes (Cooper, Hinings, Greenwood & Brown, 1996) that are associated with qualitatively different levels of organisational sustainability. Several developmental models have been proposed that describe multiple levels of sustainability. A metatheoretical combination of these models results in a developmental lens for organisational sustainability (based on the work of Dunphy, Griffiths & Ben, 2003; van Marrewijk, 2003; van Marrewijk & Becker, 2004; van Marrewijk & Hardjono, 2003; van Marrewijk & Werre, 2003). This developmental lens for sustainability identifies the spectrum of transformations that are potentially available to organisations. Each form of organisational sustainability is associated with certain kinds of internal qualities and environmental conditions. These are as follows:

Subsistence organisation: Sustainability is seen in terms of survival. The values base is one of working hard and getting by without doing obvious damage to individuals or environments. Survival and maximisation of profit are regarded as the sole purpose of organisational activities.

Avoidant organisation: Sustainability is seen as an attack by oppositional groups. There is a general ignorance of ethical standards and legal responsibilities. Disinterest is the prevailing attitude towards the impact of organisational activities on the workforce and community (at least until profits are affected).

Compliant organisation: Sustainability is regarded as an impost. The Compliant organisation supports industry regulation as a way of circumventing more demanding regulations regarding sustainability. Reactively responds to regulatory requirements as they arise.

Efficient organisation: Here sustainability is valued as a source of cost saving, i.e. the “business case” for sustainability. This stage sees broader sustainability demands as imposing on an individual’s freedom to do business. Sustainability is defined in terms of helping the organisation to continue trading.

Committed organisation: The organisation is committed in principle to economic, environmental and social sustainability and goes beyond legal compliance.

Sustaining organisation (local): Sustainability is valued as a way of developing the organisation and its stakeholders on all fronts. Transformational strategies are enacted for moving the organisation towards triple bottom line goals that support local communities whatever the regulatory environment.

Sustaining organisation (global): Sustainability is embedded within all aspects of organisation and is seen in global and intergenerational terms. Promotes and actively creates sustainable communities of organisations. Sustainability refers to numerous layers of purpose including physical, economic, environmental, emotional, social and spiritual/deep meaning.

As with many developmental qualities, the stages in organisational sustainability emerge inclusively in that later stages are built on and are inclusive of the core capacities of previous stages. The inclusive nature of the stage is shown in Figure 2. For example, organisations at the post-conventional stage, which are committed to embedding broad-ranging sustainability principles and practices within their culture and systems, will also retain the capacity to function at the conventional stages of “efficiency” and “conforming”. These conventional stages in turn will include the pre-conventional requirements to survive and compete as an organisation in a competitive market place. Stage-based capacities build on and support each other and are not exclusive to each other. The inclusive emergence of stages of sustainability means that later stages have a
greater capacity for engaging with the complexities of large and intricate environmental
and social systems. The more ambitious the type of sustainability aimed for, the more
complex will be the organisational culture and structure needed to achieve those ambitions
(van Marrewijk & Were, 2003).

The developmental lens is structured according to the pattern of pre- to conventional to post-
stages where there is progressive inclusion of formative stages. This structural pattern shows up repeatedly in developmental studies at multiple levels of social organisation. Figure 2 shows the inclusive nature of stages of organisational sustainability. The inclusive emergence of these deep structures means that transformation has a general direction towards more complex and more responsive forms of organisational sustainability.

![Fig. 2. A developmental lens for organisational sustainability](image)

However, there can be considerable variation in the developmental pathways undertaken by any particular organisation. Developmentally speaking, organisations have a number of options in navigating through the challenges of environmental crises, regulatory environments and raised community expectations while trying to survive in a competitive global marketplace. Organisations can retain conventional modes of minimal compliance and pursue system efficiencies for cost-saving goals, or they can regress into pre-conventional forms of rejection and avoidance to pursue, what they regard as, the core purpose of wealth maximisation or, lastly, they can create their own particular path towards more inclusive and just forms of sustainability. The latter choice is frequently referred to in management and change literature but, because true transformation always involves considerable organisational disruption and “pain”, it is less frequently undertaken and remains the exception rather than the rule (Anderson, 2003; Colombo & Delmastro, 2002).

### 3.2 The internal-external lens and the field of turbulence

Sustainability is not simply a characteristic of the isolated organisation but a complex mix that emerges out of the myriad exchanges that exist between an organisation and its external environment (Hanley, 2000). The internal-external lens is sensitive to the connections that exist across an organisation’s boundaries. Both internal and external environments are intimately involved in the transformation equation and when either pole of the internal-external lens is omitted from a theory’s explanatory ambit some form of reductionism will ensue. The movement towards more sustainable forms of organising can be stimulated through both internal and external factors. And the many different theories of organisational transformation can be located with regard to these distinctions. Of particular interest here are theories of organizational environments which focus on change.

In their seminal work on organisational environments, Emery and Trist (1965) developed a typology based on the interaction of the systems dimensions of dynamism and complexity. The field of high dynamism and high complexity is called the “turbulent field” and it is a highly perturbed and disordered category where fluctuations in the whole environment of the organisation leads to “gross levels of organisational uncertainty” (Edelman & Benning, 1999, p. 80). Figure 3 shows the typology of environmental fields that are generated by Emery and Trist model. The dynamism dimension is sensitive to the degree of movement in an organisation’s external environment while the complexity dimension assesses the intricacy and density of the structural nature of the external environment.

![Fig. 3. The Turbulent field typology of Emery and Trist (1965)](image)
From a metatheoretical point of view it is useful to combine the take the complexity dimension and consider it in more detail. Complexity is also a characteristic of the stage-based lens of organisational development. More developed organisational forms have a greater internal complexity and more elaborate interactions with their environments. Complexity is also a fundamental aspect of turbulent and unpredictable environments and organisations can respond to that complexity through development to a correspondingly more complex internal structure or, alternatively, to a more regressive and simplistic operational form (Kilburg, Stokes & Kuruvilla, 1998). Development is not a simple linear progression from one stage to the next and “organisations can transform themselves both to higher and to lower levels of complexity” (Levy and Merry, 1986, p. 300). In terms of sustainability, organisations, and their subunits, can move towards a higher functioning level of sustainability or, alternatively, they can regress to lower levels. Inclusive emergence not only means that organisations become more complex as they develop but that they are also become more vulnerable to instability because of that complexity. In their paper on multiple levels of corporate sustainability Marrewijk and Were point out that (2003, p. 109):

Because of this instability and vulnerability to environmental circumstances, large organisations can present a very mixed sustainability profile. This is evidenced in the behaviour of multinational organisations where, in response to very weak regulatory environments, their operations in Third World countries can be at pre-conventional stages of organisational sustainability while at the same time those in the “home office” country may aspire to much higher standards. Similarly, where survival of the organisation is seen to be under threat then earlier stages of organisational sustainability can once more predominate. Basic manufacturing operations and their workforces can be “moved offshore” to unregulated environments. New CEO’s can be taken on who “refocus” from “non-core activities” such as sustainability and human resource development to competitiveness, cost efficiencies, and workforce downsizing (Dunphy, 2000). Hence, there can be a regressive move from, for example, the commitment stage to the compliance and even an avoidance stage of organisational sustainability.

Turbulent external environments can act as mediating means by which organisations develop from one stage of sustainability to another (or alternatively by which they regress to more basic organisational forms). Figure 4 describes the types of turbulence in external organisational environments that can mediate organisational development from one form of sustainable organising to another. For example, turbulence in an organisation’s physical environment through depleted physical

![Fig. 1. Turbulent environments as mediating means for transformation towards more expansive forms of sustainability](image)
resources or insecure sources of energy may signal the need to shift to a compliancy approach to meeting sustainability demands. Similarly, turbulence in government regulations and policy settings may stimulate an efficiency approach which supersedes concerns about sanctions and regulations to focus on the cost savings and processing advantages available from more efficient technologies.

From this perspective, turbulence in an organisation’s external environment can become a trigger for more visionary types of organising and planning. This is why, as Eijnatten (2005) points out, one of the definitive characteristics of dealing with the complexity of turbulent organisational environments is that “planning is done by developing desirable future scenarios”. The development from one stage to another is fundamental to the future-oriented kind of planning that is definitive of authentic understandings of sustainability.

3.3 The learning lens

The third and final metatheoretical lens to be considered here is the learning lens (Edwards, 2005; Polito & Watson, 2002). Many learning theorists have proposed cycles of learning (Dixon, 1999) that involve interiors and exteriors (Miller, 1996) and individual and collective dimensions of learning (Casey, 2005; Fry & Griswold, 2003; Jorgensen, 2004; Mumford, 1992; Murray, 2002; Schwandt & Marquardt, 1999). A metatheoretical comparison between these and other learning models (Edwards, 2008) finds that learning can be very broadly represented as a cycle of four basic phases - an active behavioural phase, a reflective thinking phase, an interpretive sense-making phase and a social validation or evaluative phase. Consequently, the learning process can be represented as a cycle of active physical engagement, conceptual reflection, cultural interpretation and social validation that, through multiple iterations, can result in knowledge and insight in individuals and social collectives. Figure 5 depicts what might be called the integral cycle of learning (Edwards 2005). Each learning phase utilises different learning skills that can be classified according to two dimensions: the concrete experience-abstract conceptualisation dimension and the individual task-interpersonal relationship dimension (Mainemelis, Boyatzis & Kolb, 2002).

Figure 5 shows the learning cycle as it relates to a single-loop learning situation. In double- and triple-loop learning, this cycle is built into a multidimensional view that describes “different hierarchical levels of learning” (Stewart, 2001, p. 3). Akbar (2003) has argued that there are clear links between knowledge levels and learning and has proposed a model for integrating “the knowledge creation view and single and double-loop learning models” (2003, p. 1997). Drawing together these views, i.e. the learning cycle, stage-based models of transformation and the knowledge levels model, it is possible to develop a more integrated view for combining learning process cycles, learning loops and hierarchies of knowledge (Romme & Witteloostuijn, 1999).

![Fig. 2. The integral cycle of learning (single loop)](image-url)
propose a model of radical change that includes multiple levels of learning. Similarly, Halme (2001) has described two different types of learning that can occur in inter-organisational sustainability networks. “Lower-level learning” produces translational outcomes and provides support and improvement in sustainability principles and practices but does not challenge the underlying systems and philosophies of the organisation. The second type of learning Halme refers to as “higher-level learning”. High-level learning produces “transformational outcomes” which fundamentally change the way the organisation and its members think and act with regard to sustainability issues.

Translational learning, i.e. learning that supports the status quo, cannot produce the types of shifts necessary for movement to occur through the basic stages of organisational sustainability described, for example, by Griffiths, Benn and Dunphy (2007). This confers with the multiple learning models which propose that “one cannot engage in ‘double-loop learning’ (the type that re-evaluates basic assumptions) with single-loop models” (Daneke, 2001, p. 518). Solutions to sustainability problems that are caused by deeply held values and which are performed through institutionalised systems of practice cannot be found via single-loop or incremental learning. Only generative transformational learning approaches such as double- and triple-loop learning (Jensen, 2005), which require frame-breaking insights and behaviours to be experienced and institutionally implemented, can result in such transformations. This is not, however, a simple process of linear progression. In Figure 6 the learning lens is combined with the developmental lens to show the variability that can occur over time as an organisation struggles to balance translational with transformational modes of learning in a sustainability context.

organisation’s current stage of sustainability while transformational learning enables a shift to a new level of identity. Regressive shifts can also occur as when an organisation responds to internal and external pressures to abandon sustainability initiatives to resume its former focus on, for example, mere compliance.

The learning lens engages with many of the elements that have been identified and described as fundamental to the transformational task of sustainable organising. The learning lens can be combined with the developmental lens to uncover the multi-loop nature of learning (as shown in Figure 6) and it can also be combined with the internal-external lens to consider the role that learning place in dealing with turbulent environments and transformational imperatives.

4. METATHEORISING SUSTAINABILITY PARADOXES

A metatheoretical approach to sustainability that uses integrative lenses such as the ones described above has the potential to resolve fundamental paradoxes in the study of organisational sustainability. In the following sections the developmental, interior-exterior (turbulence) and learning lenses are used to consider the growth, learning and sustainability paradoxes.

4.1 The growth paradox

The urgency for organisations to respond to the challenges of global environmental imperatives is reaching a critical point. The issues are complex, chaotic and involve deep-seated paradoxes. On the one hand, we have growing competition in the economic arena and a consequent increase in the daily pressure on
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The developmental lens offers a meta-view that can resolve the growth paradox. The developmental lens proposes that growth is not simply a question of economic increase and that if the maximisation of economic wealth continues as the main aim of organisational purpose then unsustainable practices and environmental and social degradation will continue and probably increase in the coming decades. Organisational growth can also be seen within a developmental context that involves transformation to qualitatively new forms of organising. Growth from this perspective is not necessarily tied to ever-increasing cycles of the consumption and production of goods and services. This understanding of vertical, transformative growth and development lies in direct contrast to the current understanding of horizontal, translational growth. If we remain stuck within the same horizontal level of conventional sustainability (in either its Compliant or Efficient forms) we will always regard growth as a question of translational increase and our innate need for vertical, transformative development (in both personal and communal domains) will continue to be sublimated towards translational avenues for creating economic wealth.

Translational dynamics are ongoing and never-ending because they continuously stabilise identity structures and behavioural systems. These day-to-day transactions and exchanges create and recreate the organisational system moment by moment. However, they can never result in qualitative transformations of the kind that can meet the challenges posed by turbulent ecological and social environments. No amount of translation results in transformation. It is only qualitative transformation (the development lens) that can address this paradox. In pursuing largely translational change strategies to address problems that require authentic transformation, organisations are locking themselves and their communities into ways of thinking and acting that exacerbate the problem. They look to growth and the creation of even more economic “wealth” as a solution to the sustainability dilemma. Luke (2006) calls this approach “sustainable degradation”. He argues that the “strategies of sustainable degradation” offer justifications for ongoing translational growth so that the deep cultural and structural changes that environmental sustainability actually calls for can be evaded. There is an appearance of ecological issues being represented in managerial, commercial and judicial decision-making, but, as Luke contests (2006, p. 112),

... in reality, the system of sustainable degradation enables capital to extract even more value by maintaining the appearances of creating ecological sustainability while exploiting the realities of environmental degradation.

And so we have the vicious circle of increased economic activity being seen as the solution to problems caused by increasing levels of production and consumption (Sonntag, 2000). In other words, organisations are ramping up their translational growth goals and activities to address problems largely caused by excessive translational growth. The demands and benefits of true interior and exterior transformation are being eschewed in favour of translational cycles of change that do not question the basic issues of excessive production and consumption (Kimerling, 2001).

All organisations must deal with transformational and translational imperatives. From a metatheoretical perspective however, there is deep confusion and lack of awareness over the role of these two forms of development. Translation enables organisational stability through the ongoing maintenance of an organisation’s status quo structures, processes, purpose and culture. Translation supports and legitimates the current stage of organising to be “sustained” and it is this conventional understanding of sustainability that currently dominates the organisational literature on sustainable development (Luke, 2006). Development in translational terms means increasing that activity. Authentic transformation of the kind described in the stage-based models of organisational sustainability is supplanted by a concern for ongoing economic growth. Social researcher Clive Hamilton (2003) in his book “The Growth Fetish” has described this obsession with endless cycles of production and consumption leading to ever-increasing growth.
The transformational instinct is sublimated into a one-sided concern for quantitative increase rather than qualitative development. Organisations and their leaders see the importance of change, but are unaware or avoidant of authentic transformational growth and focus instead on "the malfunctioning source code" of financial increase, material wealth creation and the profit motive (Henderson, 2006). The result is that transformational energies are thwarted and redirected into hyper-translational focus on economic growth with the ensuing degradation and devaluation of the natural world in both developing and developed countries.

Transformation from a Compliant to an Efficient stage of organisational sustainability will not fundamentally address this dilemma. At the Efficient stage, greater throughput efficiencies often result in even greater volumes of outputs being produced, rather than any fundamental change in processes that are driving the system (see Polimeni & Polimeni, 2006 for a discussion of the paradox). The lack of consciousness around valid transformational goals and the ubiquitous pursuit of translational efficiencies and productivity mean that the sustainability crisis is being exacerbated by the efficiency and technology innovations that are being touted as the solution.

A metatheoretical understanding of the forms of development provides a more complete view of sustainability. The application of this lens sees the enthusiastic drive to improve and increase translational growth as a distraction from the main task of transformative development. In many ways, translational growth masquerades as transformation. "Sustainability" is reframed as "sustainable growth", "sustainable profit margins" and "sustainable levels of production and consumption". These types of "weak" sustainability (Pennington, 2006) reframe concepts of transformation and radical change into a discourse based on incremental adaptation and more efficient wealth creation. They dilute the transformational imperative into a transactional imperative. The environmental and social challenges of radical development to new forms of sustainable organising are placed within a context of maintaining profits, preserving the hegemony of economic values over other types of values and defending material wealth creation over other forms of well-being. The rapid changes we see occurring in the world of organisations can be considered as a complex mix of both transformational and translational dynamics. It is critical, however that they not be confused. Without including both in our explanations of sustainable development, we run the risk of producing inadequate understandings of each.

4.2 The learning paradox

Prawat (1999) defines the learning paradox as the attempt "to explain how it is that new and better knowledge is fashioned out of prior, less complex knowledge". With regard to sustainability, how can we learn to develop sustaining organisations when the current levels of organisational functioning so demonstrably lacks such a capability? Single-loop learning models are not up to the task of resolving this paradox because this level of learning is embedded within the conventional adaptive cooperation between a social entity and its environment (Emery, 2000). It is not adaptive reactions that are required here but proactive transformations. Sustainable organising requires the adoption of innovative behaviours and new forms of consciousness. These changes do not emerge without some form of transformational learning taking place. The strong connections between organisational learning and transformation towards organisational sustainability have been pointed out by many theorists (Molnar & Mulvihill, 2003; Senge, 2003; Tilbury, 2004). As Nattrass and Altomar note
(1999, p. 5) “the understanding and practice of the organisational learning disciplines will be the indispensable prerequisite of a successful transformation to sustainability”.

Figure 7 depicts the different forms of learning within a multi-level context of different levels of organisational sustainability. Single-loop learning, “know what”, can be thought of as a translational form of learning because it performs a stabilising function that sustains and legitimates the current structures of the social entity. Where transformation is required, double- and triple-loop forms of learning are needed to create qualitatively new forms of organisational development. Double-loop learning, “know how”, is concerned with challenging a learner’s own values and assumptions. In triple-loop learning, “know why”, the participants move “beyond questioning their own values and consider the values of the societal tradition system in which their actions are taking place” (Foldy & Creed, 1999, p. 208). There is a challenge to the conventional paradigm that results in a type of learning that is “frame breaking” and transformational. It is this type of frame-breaking change that is required for the development of sustaining organisations.

So where does the potential for triple-loop learning come from? What distinguishes this type of frame-breaking change from naïve social revolution or directionless relativism? One answer to this learning paradox can be found in the spectrum of inherent values that underpins the developmental lens. Stage-based models of sustainable organising (such as those on which the developmental lens for sustainability is based) are proposing that the latter, more complex stages are more suited to meeting the challenges of emerging global crises than the formative stages. The values, mindsets and assumptions of the postconventional forms of organisational sustainability have a much greater capacity for including the plurality of human and ecological concerns than the preconventional and conventional forms. The conventional forms of organisational sustainability, i.e., Compliance and Efficiency, must be radically integrated within the leading-edge forms of sustainability, that Committed and Sustaining. And this must occur in a widespread fashion across the globe if the learning, growth and sustainability paradoxes are to be resolved.

4.3 The sustainability paradox

Turbulent environments place immense stress on organisations and the individuals that work in them. In such environments we are faced with the paradox of retaining a coherent identity and stability while also embracing radical change to develop adaptive capabilities (Emery, 2000). In other words, organisations need to sustain a coherent and cohesive identity while also sustaining a transformative identity that can meet the sustainability imperative. This problem of balancing sustainable change with sustainable stability escalates as further development proceeds. Complex structures made up of several qualitatively different developmental levels can experience multiple levels of this paradox. Particularly when fundamental levels of a system’s environment are threatened, there can be a type of cascading turbulence where disorder in more were all basic environmental conditions initiates a chain off rapid changes at multiple levels. This cascading turbulence, or “vortical environment” as it has been called by Babüroðlu (1988), can come about through the institutionalisation of “maladaptive responses” (Babüroðlu, 1988) that actually accentuate that turbulence. In many ways, this is precisely what we see in the multitude of global crises that currently beset the planet.

A metatheoretical analysis of reductive and distorted applications of lenses provides a way of breaking this vicious cycle of maladaptation and the creation of cascading turbulence. For example, the use of the developmental lens provides a way of untangling maladaptive from adaptive understandings of change. In knowing that there are qualitatively distinct forms of organisational sustainability, we become aware of the differences between translational and transformational growth. Translational growth provides stability and the capacity to sustain a coherent and cohesive identity, while transformational growth encourages the shift to more progressive and integrative forms of organising. Understanding the nature of single, double and triple loop learning also supports this differentiated awareness of horizontal and vertical types of sustainability. Both are needed to adequately meet the challenges of developing sustaining organisations on the 21st century.

5. CONCLUSION

In the foregoing a metatheoretical approach to sustainability has been proposed that attempts to resolve some fundamental paradoxes facing organisations. Without such an approach, the development of more paradigms and models of sustainability runs the risk of increasing the fragmentation and parochial nature of theory building in this important area. There is also the risk that the fundamental paradoxes characteristic of sustainability issues will not be resolved because current perspectives are actually embedded within those paradoxical
frameworks. More importantly, our current theoretical orientations might be contributing to the growing turbulence and ecological, economic and social domains across the globe. A meta-theoretical analysis of the conceptual frameworks we use to understand and explain sustainability is called for so that a transformation in our intellectual framings can also occur. Meta-theorising is inherently critical (Colomy, 1991) in that it cannot only locate theoretical positions within a broader framework but also identify their conceptual limitations. The emergence of apparent chaos and paradox in critical situations typically flags the need for meta-perspectives to be urgently pursued and this is evidently the case for the study of organisational sustainability.

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