Reflections:
What does Quantum Physics of Storytelling Mean for Change Management?
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For Journal of Change Management – Drafted April 9, 2011; Last revised July 21, 2011;
accepted for publication in 2012 issue on 7/22/2011

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Abstract
The paradigm shift to quantum physics will mean new approaches to change management and storytelling. Because what we thought we knew about space, time, and matter has changed our storytelling of the history, present, and future will be different. My purpose is to reflect on the way changes in what I call the ‘quantum physics of storytelling’ prompt important changes in the practices of change management. Antenarrative is a genre of storytelling the future that is an ‘intra-weave’ with retrospective narrative of many pasts, and living stories of the more immediate Now-presentness of webs of relationality. One key change to change management is two new theories of antenarrative. Initially antenarrative was defined in 2001 in only two [ontic] ways: the ante (bet) the transformation of the future, and the ante (before) to its fossilization in narrative retrospection coheres. These seem to connect narrative-past to predicted future-end-states. In this reflection, I submit quantum physics, because everything from living beings to living things is entangled at the subatomic particle/wave indeterminacy, this quantum-field-ness necessitates two new [ontological] theories: ante (anteriority) the primordial-future [in-being] ahead of itself beckoning the present, and ante (antecedent) the predicate (or a priori) Being-of-possibilities of authentic care, a calling to Now-ness potentialities.

Key Words: Storytelling, antenarrative, ontological-anteriority, change management, quantum physics

Introduction
As a blacksmith artist, I care about metal, and being-involved with metal, for a while, in my shop. The forge, anvil, and post-vice are, for me, living things. In-Being a smith, I have this everydayness about time, and some metal-thing I am working on, producing a metal leave, using a metal tool to make a vein in it, employing tongs to grip orange-hot metal, caring for the tools
after putting them to use, putting some spring steel aside to make a sword for my son’s next visit, giving up on a piece of art that went too yellow in the fire, finding metal that was lost, interrogating metal for its carbon signature, discussing some project with a master-smith, such as how to tap a forge-weld with the wooden hammer, how to dress out the head of my hammer. This is, for me, ontological-storytelling, what I shall discuss here as Martin Heidegger’s inquiry into in-Being.

One objective of change management can be to discover the storytelling path of one or more ‘storytelling organizations’ (defined as collective storytelling systems in which storytelling-expressive performance is a key part of members’ past-present-future sensemaking), and when needed facilitate some new pathways by doing strategic storytelling interventions (Boje, 1991a, b; Boje, 1995; Boyce, 1995). Yet there is another path, an ontological-storytelling that involves very subtle processes. My version of storytelling, and story, is not at all the same as my colleagues, Yiannis Gabriel or Barbara Czarniawska, though at times we cross paths about the relation of actors and material things.

An example of subtle processes of ‘storytelling organizations’ that intra-play with material aspects with future-time, is Yiannis Gabriel’s (2008a: 53) development a “theory of organizational miasma, a concept that describes a contagious state of pollution – material, psychological and spiritual – that afflicts all who work in particular organizations.” These are unseen-‘storytelling organization’-processes of miasma that are “highly contagious” self-reinforcing spirals of spiritual decay, corruption of human values of trust, care, love, and community where suspicion, “scapegoating and witch hunts are rife” and there is an accompanying ongoing organizational cleansing that is quite material (Gabriel, forthcoming: p. 8, 13). In other words, miasma (from myth of Oedipus) is a contagion-feeling of an entire ‘storytelling organization’ in what I would call an antenarrative-downward-spiral of viciousness where the pathology of depression-contagion (loss of self-esteem), mis-trust, that is in intra-activity with the material organizational processes of purging and cleansing, such as sacrificing staff in order to find health. Ironically and tragically, the quest for health leads to more scapegoating and witch-hunting while resistance becomes paralyzed as people join in self-criticism but silence their stories. Gabriel (2008a: 61) says miasma is not just future-oriented, but affects the past and present: “A silent killer, like a silent virus, treating people as objects, selecting, deciding and dismissing. At such times, a nostalgia for the organization’s past and its previous leaders may offer some solace, yet miasma often afflicts the past as well as the present (just as it afflicts resistance and dissent).”

There is an important history of narratology that can be sorted by country beginning with Greek poetics, then reactions to it that range from Russian Formalism, French and American structuralisms, more recent French poststructuralism, hermeneutics, and so forth, as summarized in Table 1. Many of these grew up in a time of atomistic (billiard ball) physics where space was
idealized as a geometric map, time was idealized as clock into a conception of linear-time-sequence, and matter was atomistic–mechanistic-form.

I shall assert that with the shift to quantum physics, a new sort of storytelling approach, one with implications to change management, is happening. With quantum physics matter is not static, not an absolute certainty, and even observing matter with this or that apparatus can change the outcome, according to the uncertainty principle and the observer effect. In particular, what Heidegger (1962) terms the old (inauthentic) sorts of space, time, matter concepts are in intra-play with the more authentic-Dasein anticipation from the future, a fore-sight of care, a fore-having of in-Being-in-everyday-caring, not just the semblance of Being-in-the-world (space), a fore-conception-toward-death of a primordial in a disclosedness (moment of time), and a fore-telling that is futurity-ahead-of-itself (mattering-in-possibility). Before Aristotle’s Poetics, and the atomism approach of Leucippus and Democritus, other Greeks including Plato, and indigenous peoples everywhere had more primordial spacetime-mattering sense of in-Being, not just the Being-in-the-spatial-world that was thought to me highly inter-connected.

**Table 1 – Brief Genealogy of Storytelling Approaches**

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German Historical Materialism rejected the Hegelian spirit-as-connectedness. Russian Formalism was initially focused on a mechanistic split between plot (sjuzhet) and fabula (the chronology of events), but then changed to having poetics be more real than the practical discourse. American and French Structuralisms searched for form, and Poststructuralism focused...
on the text and the linguistic turn to language games. Derrida (1979: 78) proposed that “A demand for narrative [is], a violent putting-to-the-question an instrument of torture, working to wring the narrative out of one as if it were a terrible secret… [With] archaic police methods… psychiatric, and even psychoanalytic [methods].” Bulgarians focused on the intertextuality or the equilibrium-disequilibrium theory. Several nations got narrative to be more hermeneutic (looking across iterative temporal events, at formations of meaning of Being-in-the-social-world). For me, Russian work by Bakhtin, gave insight into dialogical ways (polyphonic, stylistic, chronotopic and architectonic) (see Boje, 2008a, for review). These are each important trends, but the reflection I want to make is on how quantum physics will change storytelling and change management inquiring anew into ontological ways, beyond the search for elemental-Poetics, formalisms, or structuralism that have been the mainstay of narratologists.

Change management is often more about future-making than [cognitive] sense-making of the past. It is more about what I call some new modes of ‘antenarrative’ than it is about ‘retrospective’ narrative caught up in the antenarratives of ‘before’ and the ‘bet’ (Boje, 2001). And, too often to focus on futuring is done with prediction of some end-state [bet] and working towards it, by looking-back [before] at the past patterns (retrospective sensemaking). Our notions of not only ‘time,’ but ‘space’ and ‘matter’ are being challenged by the paradigm shift to quantum physics. This opens up new antenarrative-possibilities of how spacetimemattering is conceived. Change management has seen the shortcomings of mechanistic physics, its linear time model (Abbott, 1988), geometric sense of space that misses the ontological in-Being (Heidegger, 1962, 1992, 1999) due to its obsession with billiard ball approach to matter interacting with other matter (Barad, 2007).

Storytelling and Change

For those of you who know my work, I view storytelling, itself, as a dynamic holographic intra-play of narratives, living story webs, and various antenarratives, which I initially defined in the double meaning of a ‘before-narrative’ such as little wow moments and living stories often left-out, or emptied out to leave a narrative-structure or form, and as a ‘bet’ a prediction of bare-bones narrative-arc of key events and characters in an often linear plot-line or cyclic-causal chain (Boje, 2001). That worked out OK for mechanistic and open systems understandings of change management, but with relativity and quantum physics, I think some additional theory and praxis is needed.

There is a struggle by a ‘storytelling organization’ to achieve a balance between its narrative-past, which according to Czarniawska (2004) for strong corporate cultures needs to remain rather petrified and stable for the long haul, and living stories emerging and unfolding in the ‘Now’ where one tells one story, in the middle of telling another, in a more polyphonic manner than the narrative-arc, which both Bakhtin (1973, 1981) and Derrida (1979) found to be monological and linear. Bakhtin (1973: 12) suggested that “narrative genres are always enclosed
in a solid and unshakable monological framework”. Gabriel (2000: 22) looks at a story as something more than a surface-narrative, and prefers story to have a performative-expressive quality, and is not be as anemic or fragmented, as in my own work on terse-telling: “in the narrow sense of narratives with simple but resonant plots and characters, involving narrative skill, entailing risk, and aiming to entertain, persuade, and win over”. And he suggests finding a beginning, middle, end path for one’s story (narrative arc) can be quite positive. I think Gabriel and I look at story from different perspectives but agree with Bakhtin that story is polyphonic and not the same as narrative. My focus is terse-story, which by contrast to the full-blown-story, is more an unmerged-plurality: “The plurality of independent and unmerged voices and consciousness and the genuine polyphony of full-valued voices… plurality of equal consciousness and their world” (Bakhtin, 1973: 4). Derrida (1979: 82) makes a similar perspective: “Each ‘story’ (and each occurrence of the word ‘story’ (of itself) each story is at once larger and smaller than itself, includes itself without including (or comprehending) itself, identifies with itself even as it remains utterly different from its homonym.” In contrast to Czarniawska (1997, 1998, 2004) and Gabriel (2000, 2004, 2008a, b, forthcoming), I am looking at the non-equilibrium, non-linear, and ontological ways in which human and non-human actors are in league with living things (materiality in the quantum sense), more so, as I move to a quantum storytelling perspective, the entanglement of humans, non-human actors, and living thing-actants (Boje, 2011b).

Another difference is my focus on the future, in the antenarrative concept. Weick (1995), for example, is all about retrospective-sensemaking-narratives, and ontic ways, whereas, I want to look to ontological modes of storytelling. Recently, Weick (2011: 8) suggests something important about what is being emptied out by sensemaking: “Sensemaking omits details, but it is details lost during conceptual substitution and interpretation that often are clues to obstacles whose change needs to be managed.” This act of conceptual substitution for what I will call the ontological-storytelling something we must study. And the modifications done are through antenarratives changing the relation between emptied-out narratives and the living stories.

In sum, initially, there were two antenarrative concepts, the ‘ante’ of a ‘before’ narrative coherence and fossilization took place, and the ‘ante’ of a ‘bet’ on the future, a prediction of an end-state (Boje, 2001, 2007a,b,c; 2008a, 2011a,b). My colleagues and I used antenarrative to analyze Enron’s storytelling (Boje and Rosile, 2002, 2003; Boje, Rosile, Durant and Luhman, 2004; Boje, Gardner and Smith, 2006) and the recent ‘toxic asset’ banking crisis (Smith, Boje and Melendez, 2010). Antenarrative of prospective-sensemaking needed to be applied and extended by others, if it was to be more than just my own preoccupation (Boje and Baskin, 2010). Fortunately, a good number of other researchers took up the fledgling antenarrative concepts, or antenarrative, such as Barge (2004); Dalcher and Devin (2003); Durant, Gardner and Taylor (2006); Gardner (2002), Erickson et al (2005, 2006); Grow (2009); Vickers (2005); and Yolles (2007) and Vaara and Tienari (forthcoming in Organization Science), as well as Collins and Rainwater (2005) which used antenarrative to analyze change in Sears. Recently twenty-two studies of antenarrative came together in a Routledge handbook (Boje, 2011a).
My task at present is to define two quantum-oriented concepts of antenarrative, and make them relevant to change management: antecedent and anteriority. Change management has the task of sorting what sort of antenarratives will realign with the narrative past-nows, and the living story ‘Now-ness’ of what Bergson (1992/1932; 1991/1911; 2005/1911) calls the Durée of the immediate present. But, there is an important step being taken, to not only look retrospectively, but to see the future as calling forth the present (Heidegger, 1962, 1992, 1999; Tsoukas & Sheppard, 2004). And this is changing the logic of practices of change management (Sandberg & Tsoukas, 2011; Chia & MacKay, 2007) making the [ontic] corporeal and [ontological] reflexive practice come into new relationships (Cunliffe, 2000; Shotter, 1993). Change management can also help liberate ‘storytelling organization’ stuck in all sorts of narrative-habits of retrospective sensemaking and petrification (Weick, 1995; Boje, 1995; Czarniawska, 2004), by either cultivating a more emergent sense of living-story-Durée, or, by contrast, take a new and different direction, what Heidegger (1962) preferred to call Dasein, which has a more primordial sense of Being-there-time, a futurity that is ahead-of-itself, and aliveness in-the-Now, in-Being care and in-concern. The two perspectives [ontic & ontological] are not mutually exclusive. To the extent Dasein is an ontological-inquiry into the Being, it can help us trace the more linear, and the more Now-ness approaches to temporality, ontic-spatiality, and traditional conceptions of materiality. Heidegger (1962) was quite concerned that Durée was not taking account of how what he termed primordial-futurity was a fore-sight (space), fore-conception (time), and fore-having (mattering) in the present. With the quantum turn, more organization scholars are calling for a Heideggerian fore-sight approach to strategy (Nayak, 2009; Chia, 2004; Chia & MacKay, 2007; Tsoukas & Sheppard, 2004). There is an important issue of the political function of narrative (Mumby, 1987) that can be missed by not looking into issues of power, such as the expected ways narrative defines what ought to happen next (Culler, 1981), and the darker side of organizational knowing (Letiche, 2006, 2009). As Chia (2004) puts it, a re-education of attention is needed to get into not just epistemology, but Being-ness, or what Bennett (2010) calls onto-storytelling (using a Latourian actor-network-theory) where the assemblage of matter is vibrant. For Heidegger (1992) ontic [being or not-being] is not the same as ontological [Being-There and in-Being]. Taking matter seriously in ontological-storytelling and in ontic-change practices will require some new ways of being aware of one’s once-occurrent ethical answerability in the once-occurrent moment of Being (Bakhtin, 1993). To understand in-Being, its ontological-inquiry, Heidegger (1993: 158) defines some important terms:

‘In’ comes from innan, which means to dwell, habitare; ‘ann’ means I am accustomed, I am familiar with, I take care of something – that Latin colo in sense of habito and diligo. Dwelling is also taken here as taking care of something in intimate familiarity being-involved with [sein-bei].
This in-Being, the familiarity with, the caring for something, and being-involved with is what I am defining as an ‘anteriority’ that is ontological-antenarrative.

Four patterns of antenarrative are being proposed here. The first two using the ante-as-‘before ’-narrative, and ante-as-‘bet ’-predicting-the-future and the two new ones for more primordial-quantum-strategic-change (Boje, 2007c, 2011a) and ontological. This yields four sorts of causalities (linear, cyclic, spiral, & assemblage):

1. **The linear-antenarrative causality** conforms to a linear-logic by bringing a series of retrospective-narrative-representations and impressions that come to bear on the prospective-linear-antenarrative-sensemaking of an anticipated future, and by engaging in action-taking that brings that possible future into being. In short, the past and future are in connection by way of retrospection-prospection sensemaking.

2. **The cyclic-antenarrative causality** conforms to a stage-by-stage logic of retrospective-narrative-representations and impressions that come to bear on the prospective-cyclic-antenarrative-sensemaking of an anticipate future of stage-by-stage recurrence. Again, the past and future are in connection by way of retrospective-prospection sensemaking.

3. **The spiral-antenarrative causality** is not linear, not cyclic, and conforms to dialectic of deviation-amplification with deviation-counteraction, in what Bakhtin (1981) calls heteroglossia forces of language and discourse, of which this antenarrative is very much a participant. This is a connection between more immediate-emergence-sensemaking and a prospective-sensemaking that anticipated a possible future by enacting particular sorts of actions of caring and in-Being involved, for a while, iteratively. Giles Deleuze (1994: 21) says, “Spirals whose principle is a variable curve and the trajectory of which has dissymmetrical aspects as though it had a right and a left.”

4. **The assemblage-antenarrative causality** is more what Deleuze and Guattari (1987) term a rhizomatic process. Here the use of the word assemblage follows Latour’s (2005) actor-actant-network-theory, which aims to be an alternative to the social constructivism paradigm, and Karen Barad’s (2003, 2007, 2011) extension of A-C-T to quantum physics intra-play with discourse where ‘materiality’ has an equal role with ‘human’ actors (including non-human actors, such a animals, plants, & even cells or particles) and actants that can be considered ‘living things.’

**Three Problematics for Change Management Consideration**

These antenarrative-causality patterns are prompting me to reflect upon what could be two new and I hope important primordial-quantum spacetimemattering definitions of antenarrative that are ontological-inquiries into what is meant by Being, especially in-Being-everydayness, caring for anteriority as “the way of being of in-being” (Heidegger, 1992: 159). Such anteriority does not coincide with tacit-knowing, defined by sensemaking of experience (Polanyi, 1966), but is rather an ontologically genuine way of caring for, in-being-familiar-with,
for a while. The knowledge management approach to the question of knowing proceeds from the spatial, from the inner sphere to the outer sphere, from the tacit to the explicit, in a duality of tacit/explicit. The anteriority-antenarrative that I want to define is meant to be ontological, in its in-Being, and in its mode of inquiry. Being-in-the-world presumes a container, within a corporeal-container, a space within a space that is like those Chinese dolls. It is also an epistemological problematic, that is blind to what I am calling the unseen of anteriority, that is a conception of time that is neither traditional sensemaking (cognitive) nor categorical (Kantian universal). Instead, what I want to bring into your consideration is ontological, in-Being already involved with-a-world, an anteriority that despite its unseen-ness has possibilities of disclosedness that are ‘transcendental-ontological existential understandings of ontological possibilities of care (Heidegger, 1992: 162). This new formulation of antenarrative (anteriority & antecedent) leads to several important problematics for change management.

The first problematic for change management, for me, what is time, space, and matter? Is time only clock-time or world-time, where a now-present becomes a now-past, or a now-not-yet-Being? Time as conceived by Aristotle’s Poetics, flows in world-time, one-way, from a beginning, through a middle (or Now-present), to an end-state (some now-not-yet, predicted). But there are other forms of time, as Bakhtin (1981) demonstrated in nine chronotopes, where there was a relativity of time and space, with time becoming the fourth-dimension of space. The more adventure-oriented chronotopes had less ‘real’ more ‘abstract’ notions of spacetime, such as an adventure that was a more mythic situation, or moving across a landscape that was not very corporeal [not ontic]. By contrast, the more folkloric chronotopes (Rogue-Clown-Fool, Rebalesian, etc.) were more Natured, and primordial conception of time. As Barry and Elmes (1997) point out, strategy was often an abstract-adventure narrative (such as overcoming threats with strengths, finding opportunities to supplant threats), and contemporary strategy has the challenge of becoming more polyphonic (including more voices and logics). Such strategy narratives empty out the phenomenal world, its in-Being-ness.

A second problematic is that whereas Bergson and Weick favor retrospective-sensemaking, Heidegger, Bakhtin (and others) favor a more neo-Platonic view of time, space, and matter that looks at how world-time contends with more primordial spacetime-mattering. It is here that an ethic of caring, and concern with something takes on ontological proportions.

The third problematic, is that Bergson, Bakhtin, Kitarō, Deleuze, and Heidegger were each influenced by the change form mechanistic (Newtonian) physics to relativity (Einsteinium) physics, but now that we in change management are faced with the implications of recent changes to quantum physics, it is time to look at what is meant by Being.

What has Quantum Physics Got to Do with Change Management?
Consider that time is not only relative to space, but with virtuality, and global internet connections, we can be in touch with colleagues in ways that are quite quantum. With the Heisenberg ‘observer effect’ we are cultivating opportunities to be involved, to participate, to not be the innocuous bystander, because even that can send off ‘butterfly effects’ and change unfolding processes, in ways quantum physics could not imagine. Not everyone agrees with this view, as the recent debate between Pinch (2011) and Barad (2011) attests. Each of the social sciences and the business college is coping with the implications of the paradigm shift to quantum physics. Some favor Heisenberg, others such as Barad (2003, 2007) look to Bohr, while many in organization studies have turned either to Bohm or to more quantum metaphysics notions. Change management is no exception.

Consider the work of Newtonian physics posited as mechanistic organization from Taylorism to reengineering, where materialism dominated idealism. Then ponder how the work of Henri Bergson, Mikhail Bakhtin, Nishada Kitārō, Martin Heidegger, and Gilles Deleuze were each inspired by Einstein’s relativity physics, and how that work has reverberated in new approaches to the praxis of change management, where the world of action is changed, by making our sensemaking of time and space less linear than in Taylorism, less the purview of time-and-motion studies because time and motion, and space are not being conceived in the same corporeal [ontic] ways. For example, the dialogical that is polyphonic, decentered organizations, with higher expectations on collaborative processes in the midst of dialogue-stylistics, in material conditions, that have many sorts of chronotopes, and these in intra-play with discourses that are architectonic, in ways Kant did not imagine, and in ways that are not just sensemaking (cognitions).

There is a reason that the shortcomings of social constructivism are being pointed out by quantum science and actor-actant-network scholars (Barad, 2011; Latour, 199, 2005). In its heyday, social constructivism (i.e. facts are social constructions, not ‘real’ or ‘corporeal’), the paradigm of sensemaking (sensory-cognitions) offered a counter argument to overly mechanistic (Newtonian) physics’ ‘scientific realism.’ Ironically, ‘social constructivism’ critiques Newtonian physics for its ‘social realism’ but then, according to Barad, does what it objects to, becomes a ‘social realism.’ Recent versions of the social constructionist paradigm are giving primacy to idealism, by denying quantum-materiality any room on the stage. Perhaps Lyotard’s (1984) postmodern ‘narrative’ turn went too far in declaring everything a Wittgensteinian language game. There are ontological considerations beyond language, written, oral, or however styled. Weick (2006) has pointed to Buddhism, which has its own primordial ways, to get at some new ‘awareness’ by mindfulness of the Now, so important distinctions get made. So did Bergson. This affirms what I am calling quantumness of spacetime-mattering, where we are connected to living things and living beings in some particle/wave ways. However, I am also interested in a mindfulness of the future, it’s calling to the Now, and that does not square up with retrospective-sensemaking or with Bergson’s Durée. Heidegger (1962) suggested our ontological-inquiry...
begin to look at an ethic of caring, at in-Being, being familiar and concerned about something. To think in today’s more quantum terms of a future that can get ahead of itself is sheer non-sense to social constructivism, to the retrospective, and the petrified versions. That sort of teleological thinking is forbidden by mechanistic clock-time, and in world-time assumptions of social constructivism.

Karen Barad (2003, 2007, 2011) staying closer to the [Bohr] quantum physics than to mindfulness of Buddhism, argues that there is a way to bring discourse and materiality into an intra-play, an intra-activity that is quite different from the dualizing ways the materialistic and discourse, the materialist and idealist, are treated in Newtonian and even in Einsteinium physics. Barad has amendments to make to the way Marx, Butler, and Foucault approach materiality.

Now we are in the midst of the paradigm shift to quantum physics where observers, including storytellers, change quantum waves, collapsing them into particles, and as a result a new balance of materialism and social constructivism is being established. Materialism is making an ontological-comeback, and this time it wants a new alliance with caring, familiarity, and involvement [in-Being].

According to Butler (1993: 31), Marx understood matter “as a principle of transformation, presuming and inducing a future,” and Aristotle conceived of matter as “potentiality [dynameos], form actuality. In reproduction, women are said to contribute the matter; men, the form.” Butler (1993: 32) wants to make a critical genealogy of the way materiality is constructed in discourse as a masculine and a feminine. And this applies also to Plato’s *chora* in *Timaeus*: “The *chora* is that site where materiality and femininity appear to merge to form a materiality prior to and formative of any notion of the empirical” (Butler, 1993: 17). Butler insists that in formative movement exclusions are instituted, but she takes issue with Foucault, for his “account of the repressive hypothesis as merely an instance of juridical power” (p. 22). She argues that such repression, instead “operates as a modality of productive power” (ibid). Marx’s historical materialism, treats the object as not only transformed, but as itself a transformative activity established in temporal movement from a prior to later state where object materializes to the extent it is a site of temporal transformation (see Butler, 1993: 250; Marx 1845/1938).

In the new quantum physics, the living things (actants) and living beings (actors) we assemble about us, have not only onto-storytelling (Bennett, 2010), but an ontological-storytelling, and this means paying attention to how actants are living things in strange relationship to living beings (Latour, 2005; Barad, 2007; Heidegger, 1962). I assume here that every living thing is in some sort of storytelling conversation with a thousand other living things assembled in the world with and by living story beings (Tyler, 2009). In that onto-storytelling relationship with a more ontological-storytelling is an upwelling currency of not only sensemaking, but intuition, meeting up with anteriority of in-Being.
We change agents are not just projecting our storytelling onto ontic-reality, but rather we are also agentially-changing the nature of *timespacemattering* (Barad, 2003, 2007) through deploying an ontologically-involved-storytelling. Ontological-storytelling is at the life edge of changing *timespacemattering*. Simply paying attention, in the ‘observer effect,’ is making subtle paths for motion, makes waves by simply by being present, being caring, being involved, and in quantum physics of storytelling, moving the world by our ontological-storytelling-standpoint in-Being, in relation to the standpoint of other living things and lots of things we care for. It is in the ontological encounter of living beings with living things that all kinds of astonishing quantum things happen. This comment on encounter, has I think some parallels with what Weick (2011: 11) refers to as acquaintance: “sensemaking starts with knowledge-by-acquaintance, which is acquired through active exploration.”

**Teleological Causality**

It is the determination of place [*basho*] that is Nishada Kitarō’s (1970/1933-4, 1987/1917, 1990/1911) contribution to dialectic which serves as the basis for much of the change work in knowledge management. Kitarō wanted to understand Heidegger’s Being-There (Dasein) from his own Buddhist perspective. Here, I will argue that it is a teleological-causality that Kitarō was defining as his dialectical [storytelling] standpoint that is by his successors in knowledge management, such as Nonaka and Takeuchi (1995) turned into an ontic, into a duality, a way of *knowing*, not being considered at each and every step in a process of a knowledge-spiral-causality, and is therefore not a dialectical process as Kitarō suggested. Instead there is in contemporary knowledge management are dualities [tacit & explicit, inner & outer, etc.], with some spirals being dualized as downwardly in their negative consequences, and others being the other, the positively upwards.

As Kitarō (1970/1933-4: 117) puts it: “true life exists at the place where the living thing individualizes its environment and the environment individualizes itself” in a “field of forces”, in a “field of motion” of a “living being [that] is not mechanical, but teleological” and “in teleological causality the end is in the beginning.” This approach to causation would not fit with either Kant [categorical] or with Bergson [Durée], but is among the chronotopic choices of Bakhtin, and importantly, not the only choices.

First, in Knowledge Management, from my own Bergsonian reading of it, “matter is a clustering of ideas” (Bergson, 1992/1932: 114) and without guarantee of things existing outside our tacit and explicit *knowing*, and is definitely nominalism. Knowledge Management is an assemblage of ideas into idealism, where bodies are rendered merely dialectical as contradictory ideas (tacit-explicit, abstract-concrete, internal-external, particular-universal, etc.). And matter as ‘living thing’ ceases to exist ontically, and not even Berkeley believed that (ibid, p. 116). Knowledge Management claims it can put tacit knowing together from fragments of [terse] stories, remaking the fragments into explicit knowing, to store it, to disseminate it, and even to have it re-learned as tacit knowing by a new generation of employees in knowledge work, of the
knowledge organization, in the knowledge society, by a knowledge reengineer. Ironically, the work of Nishada Kitarō (1970/1933-4, 1987/1917, & 1990/1911) which serves as foundation to Tanaka (and colleagues) does not seem well-interpreted in knowledge management. For example, Knowledge Management is defined as “shared context in motion for knowledge creation” (Nonaka, Toyama, & Konno, 2000: 13), and is said to be context-specific knowledge in particular time and place, and claims such as by Nonaka et al (2000: 13-14) to be contrary to Descartes’ Cartesian view knowledge. Yet the claim protests too much: “Knowledge needs a physical context to be created” ‘there is no creation without place’” (p. 14). And is this not the same ontic-obsession with ‘spatial’ semblance, that Heidegger (1992) objects to? I will return to several other problems with Knowledge Management. Second, in the Linguistic Turn meets Weickian Sensemaking, where sensations or even conscious “ideas are merely words” that are extracted from matter (Bergson, 1992/1932: 114). This is closer to Berkeley’s view that matter is co-extensive with its representation, and “thing is a reservoir of probabilities” (ibid, p. 116). Here knowledge, as language, is the “negation of general and abstract ideas” that are “extracted from matter” (ibid, 116). And, the sensations of touch, sight, hearing, etc. of sensemaking are only word-representations involving all the senses at once in order to refute Cartesian (Descartes) theory of matter and mind split into dualism. In other words, I have this sensemaking of matter, and its existence in words I choose invites me to believe there is something in common between matter and language, in hypostasized-idealism, of existence. I will return to this point below to talk about why Bergson would be an amendment to retrospective sensemaking and to the linguistic turn. And this is why Heidegger (1962) objected to Bergson’s concept of Durée. Third, in Leadership Will (aka Intentionality and vision), matter is the reality of minds, in a combination of spiritualism and volitional vision (Bergson, 1992/1932: 114). Here mind is made up of ideas that have neither matter-power nor virtuality-power, and the vision cannot act upon other bodies, except by persuasion because it is only the movement and action of bodies that have any active power, and only bodies produce a sort of Argyris-Schon theory of action that is different from espoused theory, in search of pure action and pure activity. Fourth, in Appreciative Inquiry, there is matter that expresses the existence of God (Bergson, 1992/1932 : 114), and Devine Intelligence (ibid, p. 115), and the universe reveals itself as “intelligent cause” that is behind ‘words’ and the “plane of matter” (ibid, p. 117). This is a Neo-Platonic fantasy, one that Hegel’s Spirit-as-Dialectic seeks a positive intelligence of Devine Will behind or a priori (predicate) in Kantian sense) to the plane of matter. However, now with quantum physics, Platonic fantasy may be more real than the real. Fifth, is Bergson’s own theory of Durée is the movement-image and change itself, where the body is the meeting place of mind and matter, and in the immediate experience of duration, our sensemaking, consciousness, and intuition can touch matter. It is an entirely retrospective
sensemaking such that all the prior pasts are present in the present, and a consciousness of the eternal present, but all this durée is definitely not in touch with the future. Here Bergson (ibid, p. 122) says “knowledge in a single mind is “impossible” because universal knowledge can no longer be known. There is just too much science, too many experiments, and too much publishing. This dogmatic claim makes Heidegger’s project of for-having, fore-telling and in-Being impossible. Bergson, working out the implications of relative of spacetime sees spatiality as a multiplicity where consciousness and sensemaking unfolds outward and then “turns back within itself” and “the matter of life which fill are actually within us; the forces which work in all things we feel within ourselves” (ibid, p. 124). Bergson (p. 128) says “Kant’s error” was trying to transport intuition outside the domain of sensemaking, making it pure reason and the a priori (predicate). Kitarō, is should be stressed wanted to bring together key insights of Bergson, Kant, and Heidegger with his own sense of place [Basho].

While readers may be ready to cry out, no such future-ahead-of-itself teleological causation is possible, consider some examples. In equifinality there are systems imagined that no matter what changes you invoke, which paths of motion are taken, they inevitably reach the same sort of end-state. And then there are others in which are in the middle of a process, and there are a multifinality of possible end-states co-present in each choice made in the immediate present. Finally, in theories of emotional contagion, there emerges, a strange ‘storytelling organization.’ For more on this topic see Joanna Macy (1991) who links mutual causality (assemblages) to systems theory as re-read through the lens of Buddhism.

What antenarrative processes are evident in Gabriel (2008b): “An outstanding characteristic of the new organization was the constant undermining of individuals’ self-confidence by the very fetishization of the organization’s new image”? How do we inquire into the miasma-organization if not as some sort of ‘storytelling organization ’where storytelling itself has turned pathological, and the antenarrative-spiral processes of a future possibility, affect past (by restorying) and present (choice-making) such that emotional-contagion intra-acts with material conditions and consequences in teleological manner of causation.

The in-Being of storytelling, its How, is an inquiry into the ontological act of caring. Appreciative Inquiry has 4 D’s (discovery, dream, design, & destiny) and ontological-storytelling has 5D’s that are quite different:

1. Directionality
2. Dwelling
3. Desevering
4. Disclosure
5. Deployment

Heidegger (1991: 162-4) lays out 5 phases of knowing, which I convert into these 5 D’s.
Phase 1: Directionality, the directing-itself-toward something of concern

Phase 2: Dwelling, dwelling-with something, something encountered in the acquaintance of an caring-encounter

Phase 3: Desevering an interpretation, a laying apart, laying out, so that instead of duality, there is putting into oneness

Phase 4: Disclosure of a preservation or retaining, in disclosedness of in-Being

Phase 5: Deployment of the worldhood of the environing world, the ‘in order to’ (Heidegger, 1991: 171). The new mode of ‘in-Being’ in which is deployed in aroundness is a constitutive feature of worldhood. It enables antenarrative ‘bets’, ‘befores’, ‘antecedents’ and ‘anteriority’ of caring. I.e. the various modes of antenarrative possibility characterizing caring in their deployment.

Note: this 5th phase (deployment) is not the usual view of narrative plundering its booty back into the ‘housing’ of consciousness (Heidegger, 1991: 164). That would be an inauthentic deployment [uncaring]. Authentic deployment “does not mean narrative description reporting on the outward appearance of things in the world, that there really are mountains, streams, houses, stairs, tables, and the like, and how all of this stands” (ibid, p 169). That would be just the ontic-analysis. The 5 D’s of ontological-storytelling is “not a narrative report of world-occurrences but an interpretation of worldhood, which characterizes everything that does occur as worldly” (ibid, p. 169).

The antenarrative: bet, before, antecedent, and anteriority constitutes the How of encounters, in transcendental exposition of caring in-Being, worldhood. Heidegger is concerned that ontic is about the spatiality, about the container, about one space inside another space, like the Chinese doll. Ontological is about the conception of time, not as clock time made into spatiality (e.g. Bergson), but as an everydayness conception of time, a primordial sense of temporality, and temporalization. Heidegger gives the example illustration of the snail (Heidegger, 1991: 165-6): “We may compare the subject and its inner sphere to a snail in its shell.”

The narrative is like the snail-shell, and the living story is akin to the snail in-Being, life itself. “we can say that the snail at times crawls out of its shell and at the same time keeps it on hand; it stretches itself out to something, to food, to some things, which it finds on the ground” (Heidegger, 1991: 166). The living story does not enter into a relationship of being with the world. “its act of crawling out is but a local modification of its already-being-in-the-world” (ibid, p. 166). Even when living story is in its narrative-shell, “its being is a being-outside, rightly understood” (ibid, p. 166). Narrative has the inside of its shell-world which it pushes against and
touches, warms itself, and the like. Yet the living story is not at the outset only in its narrative-shell, its ‘how’ is being in relationship to many other living stories, as out of concern living story crawls out, in a world of in-Being. The modes of this relationship of narrative-shell and living-story encountering in-Being is through the antenarratives, how storytelling-ontologically is directional, dwelling, deseverence, disclosed, and deployment.

In, sum, I have reflected on a quantum physics of storytelling, one that is rooted in new ontological-inquiry approaches to antenarrative, the anteriority of in-Being and the antecedent-antenarrative that is an intuition of a priori in ways that would have Kant rolling in his grave, are ways forward in change management. If actants and actors are intra-connected in dynamic spacetimemattering, then it is not just ontic-connections (the before and the bet) of sensemaking, but is as well, the ontological-storytelling of antecedent and anteriority-antenarrating, especially concerned, and caring.

Conclusion

Action science and socioeconomic intervention, as my colleagues in France Savall, Zardet, and Bonnet (2008) prefer it, can be an ontological inquiry that is all about changes in spacetimemattering, and that means it is part of embodiment, caring-agency in relation to doing and being something, not just in relation to mindfulness or to the ontic-corporeal (or not). And that means it can be inspired by quantum physics of storytelling. For Barad (2007: 178), agency is a ‘doing’ in a web of relations where embodiment matters in spacetime:

Agency is ‘doing’ or ‘being’ in its intra-activity. It is the enactment of iterative changes to particular practices – iterative reconfiguring of topological manifolds of spacetimematter relations – through the dynamics of intra-activity. Agency is about changing possibilities of change entailed in reconfiguring material-discursive apparatuses of bodily production, including the boundary articulations and exclusions that are marked by those practices in the enactment of a causal structure.

For Heidegger (1962, 1992, 1999) it’s about the caring, the authentic not covered over by abstraction. It’s about the mattering of things, and caring for things and beings. And this may mean taking a much more posthumanist approach to storytelling organizations where collective storytelling processes ‘intra-act’ in intra-penetrating ways with materiality, instead of ‘interact’ being between independent entities. As quantum physicist Karen Barad (2003: 828) puts it “we are part of nature” from a posthumanist onto-epistem-ology we are also of the storytelling nature is doing, and in an “intra-activity” not outside storytelling or observing the world. In Quantum Physics “matter is substance in intra-active becoming – not a thing but a doing, a congealing of agency” (Barad, 2003: 828). A post-humanist approach to change management would be quite different reflexive and ontological-practice.
Of course, storytelling is a domain of discourse, and it is not just the storytelling of human animals, but as well the storytelling of living things, in a more forensic, and archaeological discipline of storytelling. We can broaden and deepen the praxis of change management, by taking seriously the implications of the quantum physics paradigm shift that looks at ontic in relationship to ontological.

While there is strong resistance to turning quantum physics, its experiments, and mathematics, into a metaphysics, when it comes to storytelling, there is a way in which storytelling not only shapes the future, but in anteriority-antenarrative processes the future is teleological in its determination of change and movement of the Now. And this is but one of many chronotopes, which are dialogical with other sorts of causation approaches as the linear, the cyclical, the spiral, and assemblage-antenarratives play in-Being-with Being-in-the-world.

Finally, Appreciative Inquiry has what Heidegger (1991) would call a definite intentionality: to be only appreciative. And that is taken to an ethic of positive concern, one unreachable by an intentional of critique. And the 4 D’s of AI are worked out to limit critique. Yet, I conclude that in the 5 D’s of ontological-storytelling, critique is done through intentionality: an ethic of care. My intent here is to give commentary to a caring critique that is an ontological-storytelling encounter.

References


