

Place based transformative learning: a framework to explore consciousness in sustainability initiatives

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ABSTRACT

Based on a critical literature review, the article argues that transformative learning (TL) that fosters a shift in consciousness towards a more ecological approach is an inherently place-based phenomenon. In this article we build a place-based approach to TL based on a literature review. Our theoretical framework is grounded in three key themes which emerge from the literature: (re-) connection, (self-)compassion and creativity. (Re-)connection involves all processes that evoke an experience of the interconnected nature of all life. (Self-)compassion, acting to alleviate suffering or doing the least harm, naturally follows a sense of interconnection. Creativity is the materialisation of a sense of interconnection and compassion or the means through which these can be experienced. This theoretical framework can be used empirically to research the extent to which people involved in place-based sustainability initiatives develop an ecological consciousness. Empirical research can then be used to further develop and anchor this framework, and seek the kind of practices that can evoke experiences of connection, cultivate the human ability for compassion and give space for creative living.

1. Introduction

Behaviour change stemming from regulations, incentives and/or anxiety is often temporary. In other words, people are likely to revert to old habits (Maiteny, 2002). For change to be enduring and transformative, it needs to come from the inside out (O'Brien, 2013b). This requires emotional engagement and meaningful experiences that help individuals make sense of change and consider new possibilities (Maiteny, 2002). Since the 1970s, environmental sociologists have argued for a new paradigm in which humans are understood as ecologically interdependent with other species; scholars have cautioned against ongoing development and consumption that negatively affected the earth (Dunlap and Catton, 1980). The deep ecology and ecofeminist movements have taken a step further by arguing that we need a complete shift in our way of being in the world, a shift towards a deep ecological consciousness (e.g. Macy, 1998).

Sustainability and place-based research increasingly recognises this 'inner dimension of sustainability', or a shift from the inside out (Horlings, 2015a). Current studies of the inner dimension of sustainability in place-based research explore the role of values (Horlings, 2015a), culture (Dessein et al., 2015) and worldviews (Hedlund-de Witt, 2013; Horlings, 2016). However, this body of research falls short of exploring the dimension of consciousness. This article argues that we need to better understand the role of consciousness in sustainability transformations. It seeks to expand understandings of how inner

consciousness shapes sustainability and place-shaping processes. It suggests a place-based approach to transformative learning (TL) as a theoretical lens to research this dimension of consciousness.

This paper understands consciousness as the embodiment and experience of our values, culture and worldview: going beyond a cognitive understanding of the world to actually sensing it in our bones (Daloz, 2004). The article departs from the idea that a consciousness of interdependence, or an 'ecological consciousness', complements radical long-term societal transformation.

Some researchers suggest that such a shift towards an ecological consciousness should not be viewed as a sacrifice. In contrast, this article understands processes of sustainability transformation as invitations to rethink who we are as human beings and how we want to shape our lives and environments, learning along the way that our wellbeing does not depend on a consumerist, exploitative lifestyle (Belton, 2014).

Newman (2014) argues that the creation of consciousness is a continuous and relational process that unfolds in the interaction between the self, the social and the material. O'Sullivan and Taylor (2004: 2) suggest that shifting towards an ecological consciousness is a process that requires an engagement with practices that embody ecological values. Based on these insights, we argue that TL should be understood as a place-based phenomenon. TL scholars increasingly recognise that there is a need for a well-grounded, contextualised and localised approach to TL. Despite this realisation, there is as yet no well-developed place-based perspective on TL. At the same time, sustainability science

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increasingly understands sustainability as a place-based phenomenon grounded in people-place relationships (e.g. Calvo and De Rosa, 2017; Roep et al., 2015). The building blocks this paper will develop are intended to explore place-based sustainability initiatives. As a working definition, a sustainability initiative here refers to citizen initiatives intended to conserve, transform or regenerate people-place relationships, embodying and materialising sustainability's meaning for them. The term 'sustainability' for us refers to a process that ideally leads to a world in which individuals, communities, villages, cities, regions, countries and so on embody diverse regenerative ways of living on this planet that build on the premises of cooperation, diversity, abundance, and health and wellbeing. All of these require a holistic understanding that includes both human and nonhuman entities and actors. We understand sustainability to be place-based because the way in which this broad vision manifests itself will differ in different places as a shared interpretation among all actors involved in a specific context, emerging from participatory processes envisioning and experimenting with desired futures (Miller, 2013; Weaver and Rotmans, 2006).

Researching the inner dimension of sustainability, especially when going to the level of consciousness, requires a stretching of modern scientific epistemological and ontological boundaries (e.g. Harmin et al., 2017; Lange, 2012b). The paper builds on the work of the scholars (Gunnlaugson, 2005; Lange, 2012b; Tisdell, 2012) who recognise this and point to the valuable contributions of research on the topics of consciousness, spirituality, neuroscience and complexity theory to the field of TL (e.g. the work of Schlitz et al., 2010; Wilber, 2007). They argue that scholars need to engage more with these relatively unfamiliar fields to better understand the depths of human experience and the potential for transformation. This article therefore builds on the premises of a relational ontology (Lange, 2012a) and an epistemology that includes multiple knowledges and embraces a holistic and integrated approach to TL.

The article thus aims to enrich the sustainability sciences first of all by contributing to a vision of sustainability that recognises the inter-related nature of our psychological and emotional wellbeing, and the state of our social and physical environment. It also aims to support the case for rethinking modern scientific epistemology and ontology in researching sustainability. Furthermore it hopes to contribute to the ongoing theoretical development of the concept of TL in sustainability contexts through the development of a place-based approach. Last but not least, it offers a tool that can be used (and needs to be tested) empirically to explore the dimension of consciousness in (place-based) sustainability transformations.

1.1. *Consciousness and the inner dimension of sustainability in place-based research*

Environmental sociologists have long argued for a paradigm shift to make change towards a sustainable world possible. For example, Dunlap and Catton, 1980 argued that humans, instead of dominating nature, needed to start understanding themselves as part of the larger earth ecosystem. Place-based sustainability research shows that either a shift in culture is indeed needed to accommodate change or sustainable change needs to be aligned with existing culture (Dessein et al., 2015). These two processes are often interlinked and mutually reinforce each other, because the social and material dimensions in a place are inherently interconnected (Jones and Evans, 2012). This 'inner dimension' in place-based sustainability research is largely captured by the concepts of values, culture and worldview. Human values are generally defined as the principles and motivational goals which guide decisions and behaviour, and transcend specific situations. Values in place-based research are understood as geographically bounded and shaped in the interaction of individuals, groups and their environment – and therefore as relational (Brown, 1984; Horlings, 2016). Values are therefore context- and culture-dependent, and connected with our worldview (Horlings, 2016). Hedlund-de Witt (2013: 156) describes worldviews as

'inescapable' systems of meaning and meaning making' that in effect largely inform how humans 'interpret, enact and co-create reality'.

Building on Brown (1984), Schroeder (2013) emphasises the importance of considering the relational or 'felt' dimension of values. This felt dimension is the unobservable and implicit process in the creation of values. It is an affective and experiential dimension, a process that involves people's subjective feelings of preference in a specific context. It is present in the direct interaction between people and their environment. Held values, on the other hand, are more established generalised concepts about what is good and desirable. In mutual interaction, held and felt values constitute explicitly assigned values. By exploring the nature of awareness and the creation of consciousness in people-place interfaces, this article provides a framework for engaging with this dimension of felt values, as well as a better understanding of its role in transformative change.

It has been argued that a transformation in our consciousness towards an 'ecological consciousness' is required to underline change towards a more sustainable world (e.g. Devall and Sessions, 1985; O'Sullivan and Taylor, 2004). An ecological consciousness is about becoming more sensitive to our own life and the human and nonhuman life around us (Daloz, 2004). It involves experiencing all life as interconnected, without illusions of dominance in the areas of human/nonhuman life, gender, wealth and culture (Devall and Sessions, 1985: 64–65). A shift in consciousness is not merely an epistemological process of learning to *think* differently (Jackson, 2008) that shifts our mental ideas about the world and our place within it. It also involves learning to *feel* and *be* differently, an ontological process that shifts both how we experience and are sensitive to our own lives and the surrounding world (Daloz, 2004; Lange, 2004). This is where the dimension of consciousness complements the concepts of value, culture and worldview which still often reside in the mental sphere. For example, we can be taught to value a tree and cognitively understand that our lives are connected with its life. However, if we do not experience, feel or sense this connection 'in our bones' (Daloz, 2004: 31), we do not fully embody interdependence and are very likely to find it difficult always to act accordingly (Kollmuss and Agyeman, 2002). Studies exploring the human connection with nature and indigenous ecological knowledge, for example, occasionally consider the dimension of consciousness (Hall et al., 2000; Kamitsis and Francis, 2013; Zylstra et al., 2014).

This article argues that TL – the shift towards an ecological consciousness – is an inherently place-based phenomenon. The next section first explores the theory's origin, meaning and different uses. Second, it discusses and critiques various current perspectives on it. Third, it argues for a place-based approach to TL.

2. TL: towards a place-based perspective

2.1. *Challenging dominant assumptions*

TL was first coined by Mezirow (1978) and described as 'a deep shift in perspective, leading to more open, more permeable, and better justified meaning perspectives' (Mezirow, 1978, in Taylor and Cranton). Mezirow's initial theory emerged from a study of middle-aged women returning to college (Mezirow and Marsick, 1978).

TL theory has since developed in various directions in response to both critique and emerging new perspectives (Taylor and Snyder, 2012; Tisdell, 2012). To name only a few, the various perspectives on TL include social emancipatory (Brookfield, 1993), depth psychology (Dirkx, 2001), cultural-spiritual, including feminist (Brooks, 2009), race-centric/non-Western/African (Mejiuni, 2012; Merriam and Gabo, 2008), and integrative (Gunnlaugson, 2005), including the planetary perspective (O'Sullivan and Taylor, 2004). These perspectives cover a broad range of topics and contexts, including environmental education (D'Amato and Krasny, 2011), interreligious dialogue (Charaniya and Walsh, 2004), spirituality (Sefa Dei and George, 2002), grieving (Sands

and Tennant, 2010), volunteer tourism (Coghlan and Gooch, 2011), studying abroad (Perry et al., 2012), participatory natural resource management (Diduck et al., 2012), agricultural reform (Duveskog et al., 2011), buying local food (Kerton and Sinclair, 2010) and environmental activism (Daloz, 1997). It is argued that these different perspectives on TL can be placed under the umbrella of a more unified theory, because they all share the same three basic assumptions (Cranton and Taylor, 2012): 1) a constructivist understanding of making meaning based on experiences; 2) the idea of individual autonomy; and 3) an understanding of TL as both (not either/or) individual transformation and social change. However, in using the concept of TL to explore consciousness transformation in place-based sustainability initiatives, these assumptions fail to address a number of issues the approach this paper develops seeks to overcome.

First, in researching the inner dimension of sustainability, including humans' connection to nature and shifts in consciousness or worldview, the topics of spirituality and religion cannot be bypassed (Harmin et al., 2017; Hedlund-de Witt, 2011; O'Sullivan, 1999; Zylstra et al., 2014). This requires an openness to non-modern ontologies and multiple forms of knowledge, including indigenous ones (Bowers, 2005; Lange, 2012a). It contradicts the assumption that everything is always socially constructed. In the planetary vision of TL, O'Sullivan (1999) moves beyond constructivism as the sole explanation of social and cultural phenomena by allowing for both universal features, derived from 'all the stories that have been told over the ages, located in an order beyond any of the individual ones' (O'Sullivan, 1999: 183) and local specificities in any given context. This approach to TL may be considered 're-constructive', because it seeks to avoid the limitations of both modern and postmodern approaches (O'Sullivan, 1999; O'Sullivan and Taylor, 2004). It is noteworthy here that Taylor seems to hold a contradictory view in supporting the assumption that constructivism underlies all TL theories while at the same time suggesting a re-constructive approach in collaboration with O'Sullivan.

The second assumption concerning individual autonomy is based on the idea that critical reflection, a key process in Mezirow's perspective on TL (Mezirow, 2003; Schugurensky, 2002), should ideally result in autonomous responsible thinkers. This assumption fails to recognise: a) that the rational perspective on TL grants too much credit to critical reflection based on rational reasoning and discourse (Taylor, 1998); b) the theory's western bias and flawed assumptions about the possibility of autonomy; and c) the risk of TL theory becoming a theory of 'personal development' in the spirit of a neoliberal culture of self-development and wellbeing (Newman (2014: 347). We suggest that a place-based approach should understand rational reasoning as one of many co-existing intelligences (Gunnlaugson, 2005: 334), thereby respecting place-specific knowledge, including traditional knowledge and indigenous ontology (Lange, 2012a; Smith, 2012). Furthermore, if TL is to transcend its western 'bias', the individual should be understood as embedded in a social context or community, especially when researching places that embody more communitarian cultures (Merriam and Gabo, 2008). A focus on the individual and self-development may ultimately come at the price of neglecting or even damaging our commitment to being well together, which contradictorily may lead to more anxiety and depression (Cederström and Spicer, 2015; Grundmann, 2011).

Finally, we doubt the validity of the third assumption, which suggests that TL theory concerns both individual and social change. Mezirow's idea of TL has been criticised for a lack of insight into the link between individual and social change (e.g. Collard and Law, 1989; Hart, 1990). As a result, since 2000, scholars have begun to pay attention to the social and political context of TL processes (e.g. Brookfield, 1993) and have linked it to planetary concerns, spirituality and other sociocultural issues (Newman, 2014). However, the impact of these studies has been marginal, and Newman (2014: 347) concludes that TL is still largely understood as an individual experience, based on recent TL conference proceedings, Mezirow's (2012) insistence on the

individual and the continuous dominance of Mezirow's perspective in discussions on TL (see e.g. Taylor and Cranton, 2012). In researching the dimension of consciousness, the interaction between the individual, the social and the material is central. The place-based approach developed in this paper recognises this space of interaction as the basis of TL. The next section elaborates further on this.

2.2. TL as a place-based phenomenon

It is generally acknowledged that existing TL theories fail to pay sufficient attention to the contextualised nature of TL processes (Clark and Wilson, 1991; Cranton and Taylor, 2012). Global and unique local influences should be considered (Lange, 2012b; O'Sullivan, 1999). The need for a place-based approach becomes especially apparent in the work of those using TL in relation to sustainability. Lange (2004) shows that grounding people in core values and traditional culture provides the sense of stability needed to be open to and able to cope with change. Several other studies describe the value of (re)-appreciating historical, cultural and traditional connections between communities and natural resources (e.g. Armitage et al., 2008; Bowers, 2005; Sims and Sinclair, 2008). Furthermore, cultivating an awareness of the globalised organisation of our world and our own position in it is shown to be part of the TL process (Gruenewald, 2003; O'Sullivan, 1999). Finally, scholars applying TL in a non-Western context – for example, in an Afrocentric approach – show that TL can only be useful in diverse contexts if local features and culture are carefully considered (Merriam and Gabo, 2008).

However, context in the above examples rarely refers to the material dimension in TL processes. It is usually social, cultural, historical or political (e.g. in Clark and Wilson, 1991). As a result, Bowers (2005) suggests that TL research fails to acknowledge the role shared resources and land play in the lives of indigenous cultures, and the importance of conserving them as the basis of sustainable livelihoods. The place-based approach this paper develops aims to overcome this. A place-based approach recognises that sustainability should be rooted in local resources, capacities and the distinct nature of particular places (Roep et al., 2015). At the same time, caution is required if indigenous and traditional knowledge and culture are not to be romanticised, or the fact that very few places on Earth have remained completely uninfluenced by western economic and/or cultural globalisation is not to be overlooked (Lange, 2012a). Place-based approaches consider this by appreciating the importance of local social, cultural and institutional characteristics while recognising the global influences which encounter and interact with such place-based specificities (Horlings, 2015b). This paper therefore understands place as encompassing both the material characteristics of geographical regions and the relational nature of places as nodes in a network of social, political, economic, material and historical relations which may reach out in time and space (Paasi, 2009), and in which the local and the global meet (Escobar, 2001; Massey, 2005). In complementing this approach, we aim to honour potential spiritual/metaphysical relations and practices, because these play a key role in shaping impact in many contexts. In non-Western cultures, for example, ancestor relationships may play a vital role in shaping places (e.g. Morphy, 1991). We also seek to specifically acknowledge the embodiment of place-shaping relations, including our senses and ability to move (Amann, 2003).

The transformation of consciousness from a place-based perspective is thus derived from the understanding that consciousness concerns the encounter between the self, the social, the material and, perhaps, the metaphysical world. These encounters are mediated by language and our engagements with the social and material dimensions through work (or practices) combined with a process of reflection (Newman, 2014, 352). This aligns with O'Sullivan's and Taylor (2004) planetary vision that learning towards an ecological consciousness requires mindful engagement in practices that embody ecological values such as connection, openness, generosity, appreciation, mutual respect and

responsibility, partnership, (collaborative) inquiry, dialogue, communication, reflection, celebration, creativity and a sense of the whole.

The framework this paper develops seeks to explore consciousness transformation in place-based sustainability initiatives. 'Place-based sustainability initiatives' may seem tautologous if we understand that all initiatives always have a material local context and the potential to reach out across time and space. Even virtual practices involve the embodiment of a person in place and the location of technological equipment (Massey, 2005). Furthermore, human experience is inherently situational; humans *are* because they are embodied in place (Freire, 1970; Gruenewald, 2003). However, by emphasising the 'place-based', we refer to those initiatives that explicitly and intentionally work towards embedding the human in place. Examples of such initiatives may be ecological or intentional communities, urban gardens, green care, neighbourhood initiatives, creative spaces, ecological tourism and sustainable energy initiatives. We recognise that in practice, when referring to a specific sustainability initiative like an ecological community, reference is usually made to a specific, often demarcated, territorial space and the people living within it. Such a territorially demarcated unit may very well be the starting point for unravelling such a 'place' if followed by an elaborate exploration of the various relationships extending in time and space which make the territorial unit the 'place' it is. This also shows the potential of such a place to trigger change well beyond its territorial boundaries.

In summarising this section, we suggest that TL is a useful concept to explore the dimension of consciousness in sustainability initiatives if it is understood from a place-based perspective. Here, we partly disagree with Newman (2012), who argues that the term 'transformative' is too strong, proposing 'good learning' instead. Although we recognise that many studies use the term 'transform' to describe experiences that merely involve some kind of change (Newman, 2012: 37–38), we argue that Newman (2012) fails to recognise that, in the light of current global crises and sustainability challenges, the word transformation is not too strong. The way we live and how our society is organised need a genuine transformation (e.g. O'Brien, 2013a). We agree with Howie and Bagnall (2013) that TL as a *theory* bears too many inconsistencies, unaddressed flaws and too many overly broad and vague meanings. We therefore treat TL as a useful concept or 'conceptual metaphor' (Howie and Bagnall, 2013) to use in building a theoretical frame. We also suggest 'creativity' as an inherent part of TL, which may partly address Newman (2012) concern that he almost never finds any proof of a TL process outside learners' own accounts (see 4.c).

3. Building blocks for a place-based approach

This section presents the framework that emerged from a literature review that revealed (aspects of) the place-based nature of a TL process. We have included additional literature to support theoretical thickness and contribute to the extension of TL epistemological and ontological boundaries. We have organised the reviewed literature in three themes that emerged from the literature itself: 'connection', 'compassion' and 'creativity' (See Fig. 1).

3.1. (Re-)Connection

This first theme reflects the core of an ecological consciousness – the interconnected nature of all life. Experiencing and acting on this sense of interconnectedness (reflected in the other two themes of compassion and creativity) is the basis of living from an ecological consciousness (Bateson, 1994; O'Sullivan and Taylor, 2004). Learning towards this state involves experiencing a sense of connection with various aspects of life through engagement and practices. The literature reviewed for this theme is literature that uses TL to describe such experiences of (re-)connection.

Following Massey (2004), connection involves the conscious experience of our lives being connected with multiple places in this era of

globalisation. Developing such a global consciousness is reflected in TL literature describing a) experiences of encounters with other places and cultures, including temporary residence abroad for either study (Perry et al., 2012) or (voluntary) work or tourism (Coghlan and Gooch, 2011; Higgins-Desbiolles, 2009; Morgan, 2010) and b) taking responsibility for lifestyle choices that impact places near and far, reflected in research on (food) consumption choices (Kerton and Sinclair, 2010; McDonald et al., 1999; O'Sullivan, 2003). Besides geographic mobility and/or encounters with other cultures, spiritual practice is another way to potentially evoke a sense of connection with all the world's people, perceiving differences as interesting rather than threatening (Chin, 2006; Schlitz et al., 2010; Vieten et al., 2006). Becoming comfortable with and interested in diversity is key to a TL process, because constructing an understanding of ourselves and our world requires interaction and dialogue with 'otherness' (Jokikokko, 2009; O'Sullivan and Taylor, 2004). This research supports the argument that embracing diversity is required if we are to get anywhere close to a complete understanding of our world (Harmon, 2002).

The pledge for responsibility towards places near and far concerns the call to appreciate the local in an increasingly globalised world. This involves rootedness in meaningful values and aspects of traditional culture to either conserve sustainable lifestyles or accommodate and complement transformative change. This is reflected in TL research on traditional ecological knowledge (Feinstein, 2004) and in Bowers' critique of TL, which argues TL favours change over conserving traditional ecological lifestyles (Bowers, 2005; Lange, 2012a). It is also reflected in research exploring the experience of the nonhuman. This dimension is explored in TL research on outdoor education (D'Amato and Krasny, 2011), bioregional citizenship (Dalo, 2004) and the role of encountering suffering in nature in triggering environmental consciousness (Walter, 2013).

To experience connection and 'sense it in our bones', we may have to activate abilities or 'intelligences' that may be 'dormant' (Gunnlaugson, 2007) because of decades of neglect. TL research rarely explicitly acknowledges embodied or somatic learning (Amann, 2003), for example, partly because of the Western dualism which separates body and mind (Clark, 2001). Yet the body plays a significant role in people's relationship and connection with place and land. The body is the key to experiential and affective connections with others and the environment. It is also central to a place-based approach. Land, or mere physical matter, becomes a place only when it is experienced through the body. Besides embodiment, Lange (2004) argues that 'restorative learning' – an anchoring in our own inner worlds and cultural and traditional roots to restore or conserve our core values – is also needed to complement TL, balance change with a sense of stability and restore valuable knowledge, traditions and values that may have been lost in processes of modernisation and globalisation.

3.2. (Self-)compassion

Compassion plays out as the theme which bridges connection and creativity. Compassion concerns the ability to be touched by the suffering of others (Neff, 2003; Nussbaum, 2001) and act to remove it (Miller, 2007; Way and Tracy, 2012). Self-compassion is about being kind and understanding towards oneself, understanding one's experiences as part of the universal human experience and being mindful of thoughts and feelings while not over-identifying with them (Neff, 2003). Compassion and self-compassion have been connected with increased caring for oneself and others (Jazaieri et al., 2016; Neff and Pommier, 2013; Welp and Brown, 2014), cultivating a sense of connectedness with others (Neff, 2003), successful and sustainable leadership (Boyatzis, 2005), and pro-environmental values, intentions and donations (Pfattheicher et al. 2015). Compassion for someone or something requires the recognition of the other as inherently connected with one's being. Becoming conscious of the interconnectedness of life has been shown to evoke compassion and altruism (Vieten et al., 2006):

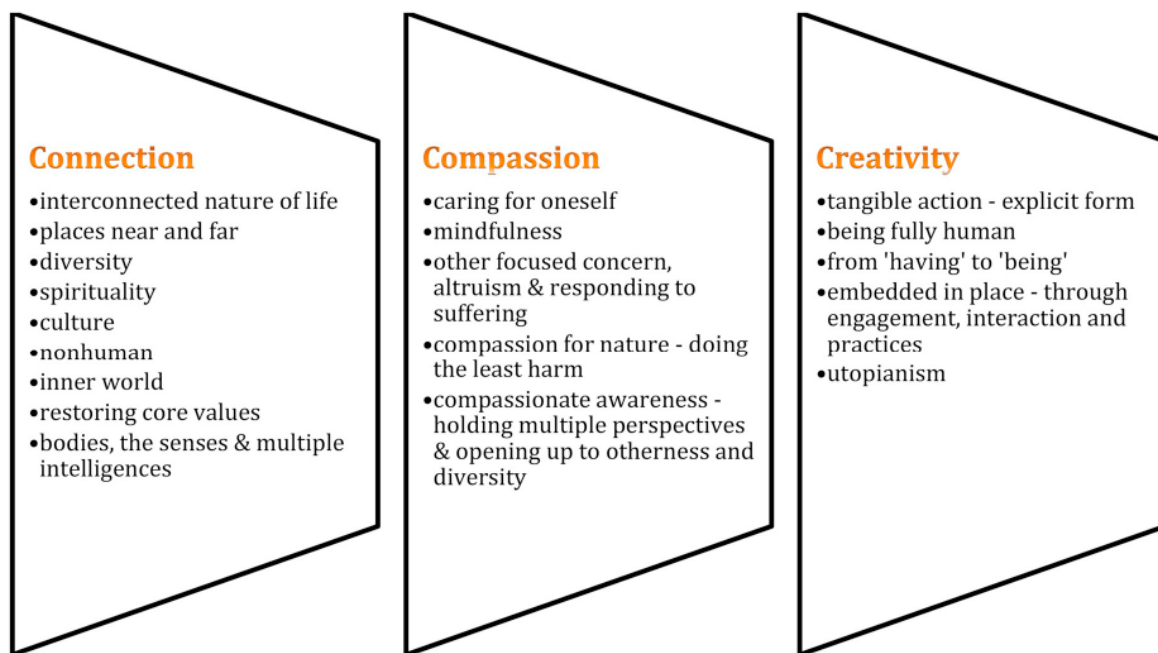


Fig. 1. Keywords reflecting the content of the three themes.

people become more 'service oriented' and motivated to act for positive change (Vieten et al., 2008). Compassion for nature may also be cultivated through the experience of belonging to it as a human being rather than being separated from it (Bannon, 1973).

(Self-)compassion is a key element in place-based TL, because it invites us: 1) to do the least possible harm to our immediate and distant surroundings (Bannon, 1973; Massey, 2004); 2) to respond actively when encountering suffering (Welp and Brown, 2014); 3) to be capable of holding multiple perspectives and thereby of embracing diversity (Gunnlaugson, 2007); and 4) to act compassionately towards ourselves to avoid 'burn out' in responding to the suffering around us (Sohr, 2001).

TL research has implicitly described compassion and self-compassion. First, the process of developing self-compassion to overcome and prevent burn out as (environmental) activists has itself been described as a TL process (Kovan and Dirkx, 2003). Second, Vieten et al. (2006) suggest that a daily 'mind-body' practice is needed to teach the mind to tolerate changes in thinking patterns and behaviour (Vieten et al. (2006): 928). Third, a study by Chaves et al. (2015) shows that the processes of social change may be challenging, stressful, confronting and tiring. Difficulties, challenges and disruptions may however spur TL processes when a community can work its way through them. This includes an intense process of social learning (Chaves et al., 2015), and to this we would also add self-compassion. One of the main challenges the study describes is the clash of different visions and perspectives of sustainable living in a community (Chaves et al., 2015). This calls for what Gunnlaugson (2007: 145) refers to as tapping into a state of 'compassionate awareness', in which one no longer exclusively identifies with one 'interpretive ideology' but instead witnesses other perspectives as partial facets of an unfolding and larger dynamic.

Neurological research has shown that compassion can be learned quite simply: brain responses to video images of suffering have been shown to be different before and after only five days of compassion and empathy training (Klimecki et al., 2014). If we understand this to be a shift in people's consciousness, we can conclude that TL is manifested at a physical level.

3.3. Creativity

The last category, 'creativity', concerns explicitly manifesting the implicit in consciousness transformation or its evocation through creative practices. Creativity is about going beyond critiquing the old to creating the new (Tisdell, 2012). The creative realm is explicitly concerned with the space of interaction between human consciousness and biophysical systems: human consciousness is partly shaped through practices that embed humans in their biophysical environment. A shift in human consciousness towards a consciousness of interdependence thus involves shifts in these practices and results in changes in biophysical systems. This supports the argument that 'the knowledge of the human system and conditions must be considered simultaneously and at corresponding multiple scales with knowledge of the social-ecological systems' (Tàbara and Chabay, 2013: 72). Zooming in on the human condition, creativity is said to be a prerequisite for being fully human (Cell, 1984; Maslow, 1968; Richards, 2007), because it is through our creativity and creative acts that we give unique expression to ourselves (Cell, 1984). Living creatively involves defining ourselves by what we *are* instead of what we *have* (Cell, 1984; Maslow, 2012). It thus implies a shifting of our consciousness from a state of 'having' to a state of 'being', which improves our wellbeing, sense of meaning and purpose in life and allows us no longer to define our sense of identity and self-worth by the extent to which we obtain 'modern life securities' (Giddens, 1991). The power to transcend ourselves lies at the heart of our creativity. This is related to Gunnlaugson (2007) idea of the 'witness self' (see 4.b): the ability to 'look at ourselves and our world and being able to imagine them changed' (Cell, 1984: 15).

By understanding TL as a process occurring through engagement in practices, creativity is both the means through which TL can occur and simultaneously the dimension in which TL is manifested in observable, explicit form. A short-term experience is therefore only transformative when it involves enduring changes in behaviour as a result of engaging in practices in which a transformative experience and potential new insights, feelings or values can be expressed. This approach builds on practice theory, arguing that behaviour change is rooted in social practice (Hargreaves, 2011; Warde, 2005). Furthermore, for an experience to become transformative, an enhancing environment is required for an enactment of experience that is integrated in daily

practice. This calls for: 1) becoming or being part of a like-minded social network or community; 2) finding a language and context for the experience; 3) continuing to access new information and teachings; 4) a daily mind-body practice to tolerate cognitive and behavioural changes; 5) engaging in ways of creatively expressing or manifesting the experience through action; and 6) daily reminders, e.g. symbols either in one's environment or worn on one's body (Vieten et al., 2006). These examples reflect a state of being embedded in place, connected with ourselves and our surroundings by engaging in practices that enhance a state of 'being'. Apart from being embedded in place, creative acts also require the ability to cope with the insecurity and anxiety which inevitably arise when we commit ourselves to the vulnerable act of creativity (Cell, 1984; Maslow, 1968). This is linked to the previous theme of self-compassion (4.b).

Research linking creativity and transformative learning covers different types of creativity and does not always explicitly refer to the concepts of creativity and TL. A recent study shows that an intentional community consciously creates spaces for innovation and creativity. Fois (2019) suggests this generates spaces that embody 'vernacular creativity', a creativity that is disconnected from a competitive spirit and the need to generate economic value, and is not confined to a privileged class. Such experimental creativity is at the heart of 'en-acting' utopias, as Fois (2019) describes. There is also some research that explores arts-based creativity in relation to (transformative) change. One study explores the role of art in the classroom in developing social consciousness and imagining social change (Ammentorp, 2007), showing that artistic expression is used to transcend concrete reality to imagine it being changed. The actual realisation of this process of social change is not included in their study. Another study shows that arts-based activities can foster new ways of experiencing the world, from which transformative strategies to address climate change may emerge (Galafassi et al., 2018). Finally, some studies link TL to (participatory) natural resource management (Armitage et al., 2008; Cumming et al., 2013; Diduck et al., 2012; Muro and Jeffrey, 2008; Sims and Sinclair, 2008). Finding ways to manage natural resources in a participatory way can be seen as a creative process that embodies ecological values of, for example, collaboration, dialogue and connection. Following Armitage et al. (2008), facilitating such a process requires considering and addressing place specificities, including issues of power, traditional taboos/sanctions/ceremonies related to natural resources and livelihood/political risks. However, these studies do not explicitly address the creativity aspect. Furthermore, they tend to be confined to the more rational and cognitive dimension of TL.

4. Conclusion and discussion

The framework this paper develops is intended to explore if and how sustainability initiatives are places in which people learn to live out of an awareness of interconnection and a state of compassionate informing of the creative act of changing our ways of living. The framework may then be used to identify the practices and places which embody connection, compassion and creativity. The framework emerged simultaneously with a process of empirical research. Empirical insights from this and other research are required to further develop and ground the framework.

The building blocks we suggest here require further critical development to address several issues they are currently unable to meaningfully integrate. First, combining various disciplines and strands of research has made the framework relatively complex, which runs the risk of touching on various aspects while failing to delve sufficiently deeply into distinct ones. Yet this complexity fits a relational ontology and acknowledges the hyper-complex nature of sustainability. It should be the intention of research to grasp this complexity and honour it (Tàbara and Chabay, 2013).

However, the framework might be strengthened by further developing some approaches. For example, we have not discussed what

wellbeing from a place-perspective would entail. Furthermore, the framework might be complemented by the addition of some quantitative scales or indicators – for example, considering people's wellbeing, the ability for (self-)compassion or sustainability indicators. However, caution is required concerning the choice of indicators or scales, because they can be controversial given the complex and sometimes politically loaded nature of the themes the framework covers. This paper has furthermore drawn attention to the need to rethink modern scientific epistemology and ontology when researching the inner dimension of sustainability. This is a delicate and complex issue that a single article can never fully explore and discuss. However, our aim has been to touch on some of the issues research may encounter in exploring sustainability that require, at the very least, an openness to the possibility of different kinds of knowing and worldview. Finally, the framework neither explicitly nor thoroughly examines structural issues, including power, social/political/economic/spatial inequality and how these influence access to and inclusion in sustainability initiatives and experiences that might foster a TL process. This raises the question of whether and how the place-based TL this paper describes is only experienced in practice by an elitist minority, and why this matters if it is the case. The argument this paper develops provides some insights into developing the kinds of awareness and capacity which may help to foster people's ability to connect with 'otherness' from a place of e.g. compassionate awareness. Empirical research may provide more insights into concrete examples of this interaction with otherness as part of or resulting from place-based TL processes, and what this means for the futures sustainability initiatives envision.

Declaration of interest

The authors declare no conflicting interest with regard to the publication of this article.

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